API Reference

# AWS IoT



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# AWS IoT: API Reference

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# Welcome

## AWS IoT

AWS IoT provides secure, bi-directional communication between Internet-connected devices (such as sensors, actuators, embedded devices, or smart appliances) and the AWS cloud. You can discover your custom IoT-Data endpoint to communicate with, configure rules for data processing and integration with other services, organize resources associated with each device (Registry), configure logging, and create and manage policies and credentials to authenticate devices.

The service endpoints that expose this API are listed in AWS IoT Core Endpoints and Quotas. You must use the endpoint for the region that has the resources you want to access.

The service name used by AWS Signature Version 4 to sign the request is: *execute-api*.

For more information about how AWS IoT works, see the Developer Guide.

For information about how to use the credentials provider for AWS IoT, see Authorizing Direct Calls to AWS Services.

## AWS IoT data

AWS IoT data enables secure, bi-directional communication between Internet-connected things (such as sensors, actuators, embedded devices, or smart appliances) and the AWS cloud. It implements a broker for applications and things to publish messages over HTTP (Publish) and retrieve, update, and delete shadows. A shadow is a persistent representation of your things and their state in the AWS cloud.

Find the endpoint address for actions in AWS IoT data by running this CLI command:

```
aws iot describe-endpoint --endpoint-type iot:Data-ATS
```

The service name used by AWSSignature Version 4 to sign requests is: *iotdevicegateway*.

## AWS IoT jobs data

AWS IoT Jobs is a service that allows you to define a set of jobs — remote operations that are sent to and executed on one or more devices connected to AWS IoT Core. For example, you can define a

job that instructs a set of devices to download and install application or firmware updates, reboot, rotate certificates, or perform remote troubleshooting operations.

Find the endpoint address for actions in the AWS IoT jobs data plane by running this CLI command:

```
aws iot describe-endpoint --endpoint-type iot:Jobs
```

The service name used by AWS Signature Version 4 to sign requests is: *iot-jobs-data*.

To create a job, you make a job document which is a description of the remote operations to be performed, and you specify a list of targets that should perform the operations. The targets can be individual things, thing groups or both.

AWS IoT Jobs sends a message to inform the targets that a job is available. The target starts the execution of the job by downloading the job document, performing the operations it specifies, and reporting its progress to AWS IoT Core. The Jobs service provides commands to track the progress of a job on a specific target and for all the targets of the job

## AWS IoT Core Device Advisor

AWS IoT Core Device Advisor is a cloud-based, fully managed test capability for validating IoT devices during device software development. Device Advisor provides pre-built tests that you can use to validate IoT devices for reliable and secure connectivity with AWS IoT Core before deploying devices to production. By using Device Advisor, you can confirm that your devices can connect to AWS IoT Core, follow security best practices and, if applicable, receive software updates from IoT Device Management. You can also download signed qualification reports to submit to the AWS Partner Network to get your device qualified for the AWS Partner Device Catalog without the need to send your device in and wait for it to be tested.

## AWS IoT Secure Tunneling

AWS IoT Secure Tunneling creates remote connections to devices deployed in the field.

For more information about how AWS IoT Secure Tunneling works, see AWS IoT Secure Tunneling.

# Actions

The following actions are supported by AWS IoT:

- AcceptCertificateTransfer
- AddThingToBillingGroup
- AddThingToThingGroup
- AssociateSbomWithPackageVersion
- AssociateTargetsWithJob
- AttachPolicy
- AttachPrincipalPolicy
- AttachSecurityProfile
- AttachThingPrincipal
- CancelAuditMitigationActionsTask
- CancelAuditTask
- CancelCertificateTransfer
- CancelDetectMitigationActionsTask
- CancelJob
- CancelJobExecution
- ClearDefaultAuthorizer
- ConfirmTopicRuleDestination
- CreateAuditSuppression
- CreateAuthorizer
- CreateBillingGroup
- CreateCertificateFromCsr
- CreateCertificateProvider
- CreateCommand
- CreateCustomMetric
- CreateDimension
- CreateDomainConfiguration
- CreateDynamicThingGroup

- CreateFleetMetric
- CreateJob
- CreateJobTemplate
- CreateKeysAndCertificate
- CreateMitigationAction
- CreateOTAUpdate
- CreatePackage
- CreatePackageVersion
- CreatePolicy
- CreatePolicyVersion
- CreateProvisioningClaim
- CreateProvisioningTemplate
- CreateProvisioningTemplateVersion
- CreateRoleAlias
- CreateScheduledAudit
- CreateSecurityProfile
- CreateStream
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- CreateThingGroup
- CreateThingType
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- CreateTopicRuleDestination
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- DeleteAuditSuppression
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- DeletePolicyVersion
- DeleteProvisioningTemplate
- DeleteProvisioningTemplateVersion
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- DeleteRoleAlias
- DeleteScheduledAudit
- DeleteSecurityProfile
- DeleteStream
- DeleteThing
- DeleteThingGroup
- DeleteThingType
- DeleteTopicRule
- DeleteTopicRuleDestination
- DeleteV2LoggingLevel
- DeprecateThingType
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- DescribeAuditFinding
- DescribeAuditMitigationActionsTask
- DescribeAuditSuppression
- DescribeAuditTask
- DescribeAuthorizer
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- DescribeCertificateProvider
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- DescribeMitigationAction
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- DescribeRoleAlias
- DescribeScheduledAudit
- DescribeSecurityProfile
- DescribeStream

- DescribeThing
- DescribeThingGroup
- DescribeThingRegistrationTask
- DescribeThingType
- DetachPolicy
- DetachPrincipalPolicy
- DetachSecurityProfile
- DetachThingPrincipal
- DisableTopicRule
- DisassociateSbomFromPackageVersion
- EnableTopicRule
- GetBehaviorModelTrainingSummaries
- GetBucketsAggregation
- GetCardinality
- GetCommand
- GetCommandExecution
- GetEffectivePolicies
- GetIndexingConfiguration
- GetJobDocument
- GetLoggingOptions
- GetOTAUpdate
- GetPackage
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- GetPackageVersion
- GetPercentiles
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- ListViolationEvents
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- RegisterCACertificate
- RegisterCertificate
- RegisterCertificateWithoutCA
- RegisterThing
- RejectCertificateTransfer
- RemoveThingFromBillingGroup
- RemoveThingFromThingGroup
- ReplaceTopicRule
- SearchIndex
- SetDefaultAuthorizer
- SetDefaultPolicyVersion
- SetLoggingOptions
- SetV2LoggingLevel
- SetV2LoggingOptions
- StartAuditMitigationActionsTask
- StartDetectMitigationActionsTask
- StartOnDemandAuditTask
- StartThingRegistrationTask
- StopThingRegistrationTask
- TagResource
- TestAuthorization

- TestInvokeAuthorizer
- TransferCertificate
- UntagResource
- UpdateAccountAuditConfiguration
- UpdateAuditSuppression
- UpdateAuthorizer
- UpdateBillingGroup
- UpdateCACertificate
- UpdateCertificate
- UpdateCertificateProvider
- UpdateCommand
- UpdateCustomMetric
- UpdateDimension
- UpdateDomainConfiguration
- UpdateDynamicThingGroup
- UpdateEncryptionConfiguration
- UpdateEventConfigurations
- UpdateFleetMetric
- UpdateIndexingConfiguration
- UpdateJob
- UpdateMitigationAction
- UpdatePackage
- UpdatePackageConfiguration
- UpdatePackageVersion
- UpdateProvisioningTemplate
- UpdateRoleAlias
- UpdateScheduledAudit
- UpdateSecurityProfile
- UpdateStream
- UpdateThing

- UpdateThingGroup
- UpdateThingGroupsForThing
- UpdateThingType
- UpdateTopicRuleDestination
- ValidateSecurityProfileBehaviors

The following actions are supported by AWS IoT data:

- DeleteConnection
- DeleteThingShadow
- GetConnection
- GetRetainedMessage
- GetThingShadow
- ListNamedShadowsForThing
- ListRetainedMessages
- ListSubscriptions
- Publish
- SendDirectMessage
- UpdateThingShadow

The following actions are supported by AWS IoT jobs data:

- DescribeJobExecution
- GetPendingJobExecutions
- StartCommandExecution
- StartNextPendingJobExecution
- UpdateJobExecution

The following actions are supported by AWS IoT Core Device Advisor:

- CreateSuiteDefinition
- DeleteSuiteDefinition

- GetEndpoint
- GetSuiteDefinition
- GetSuiteRun
- GetSuiteRunReport
- ListSuiteDefinitions
- ListSuiteRuns
- ListTagsForResource
- StartSuiteRun
- StopSuiteRun
- TagResource
- UntagResource
- UpdateSuiteDefinition

The following actions are supported by AWS IoT Secure Tunneling:

- CloseTunnel
- DescribeTunnel
- ListTagsForResource
- ListTunnels
- OpenTunnel
- RotateTunnelAccessToken
- TagResource
- UntagResource

# AWS IoT

The following actions are supported by AWS IoT:

- AcceptCertificateTransfer
- AddThingToBillingGroup
- AddThingToThingGroup
- AssociateSbomWithPackageVersion

- AssociateTargetsWithJob
- AttachPolicy
- AttachPrincipalPolicy
- AttachSecurityProfile
- AttachThingPrincipal
- CancelAuditMitigationActionsTask
- CancelAuditTask
- CancelCertificateTransfer
- CancelDetectMitigationActionsTask
- CancelJob
- CancelJobExecution
- ClearDefaultAuthorizer
- ConfirmTopicRuleDestination
- CreateAuditSuppression
- CreateAuthorizer
- CreateBillingGroup
- CreateCertificateFromCsr
- CreateCertificateProvider
- CreateCommand
- CreateCustomMetric
- CreateDimension
- CreateDomainConfiguration
- CreateDynamicThingGroup
- CreateFleetMetric
- CreateJob
- CreateJobTemplate
- CreateKeysAndCertificate
- CreateMitigationAction
- CreateOTAUpdate
- CreatePackage

- CreatePackageVersion
- CreatePolicy
- CreatePolicyVersion
- CreateProvisioningClaim
- CreateProvisioningTemplate
- CreateProvisioningTemplateVersion
- CreateRoleAlias
- CreateScheduledAudit
- CreateSecurityProfile
- CreateStream
- CreateThing
- CreateThingGroup
- CreateThingType
- CreateTopicRule
- CreateTopicRuleDestination
- DeleteAccountAuditConfiguration
- DeleteAuditSuppression
- DeleteAuthorizer
- DeleteBillingGroup
- DeleteCACertificate
- DeleteCertificate
- DeleteCertificateProvider
- DeleteCommand
- DeleteCommandExecution
- DeleteCustomMetric
- DeleteDimension
- DeleteDomainConfiguration
- DeleteDynamicThingGroup
- DeleteFleetMetric
- DeleteJob

- DeleteJobExecution
- DeleteJobTemplate
- DeleteMitigationAction
- DeleteOTAUpdate
- DeletePackage
- DeletePackageVersion
- DeletePolicy
- DeletePolicyVersion
- DeleteProvisioningTemplate
- DeleteProvisioningTemplateVersion
- DeleteRegistrationCode
- DeleteRoleAlias
- DeleteScheduledAudit
- DeleteSecurityProfile
- DeleteStream
- DeleteThing
- DeleteThingGroup
- DeleteThingType
- DeleteTopicRule
- DeleteTopicRuleDestination
- DeleteV2LoggingLevel
- DeprecateThingType
- DescribeAccountAuditConfiguration
- DescribeAuditFinding
- DescribeAuditMitigationActionsTask
- DescribeAuditSuppression
- DescribeAuditTask
- DescribeAuthorizer
- DescribeBillingGroup
- DescribeCACertificate

- DescribeCertificate
- DescribeCertificateProvider
- DescribeCustomMetric
- DescribeDefaultAuthorizer
- DescribeDetectMitigationActionsTask
- DescribeDimension
- DescribeDomainConfiguration
- DescribeEncryptionConfiguration
- DescribeEndpoint
- DescribeEventConfigurations
- DescribeFleetMetric
- DescribeIndex
- DescribeJob
- DescribeJobExecution
- DescribeJobTemplate
- DescribeManagedJobTemplate
- DescribeMitigationAction
- DescribeProvisioningTemplate
- DescribeProvisioningTemplateVersion
- DescribeRoleAlias
- DescribeScheduledAudit
- DescribeSecurityProfile
- DescribeStream
- DescribeThing
- DescribeThingGroup
- DescribeThingRegistrationTask
- DescribeThingType
- DetachPolicy
- DetachPrincipalPolicy
- DetachSecurityProfile

- DetachThingPrincipal
- DisableTopicRule
- DisassociateSbomFromPackageVersion
- EnableTopicRule
- GetBehaviorModelTrainingSummaries
- GetBucketsAggregation
- GetCardinality
- GetCommand
- GetCommandExecution
- GetEffectivePolicies
- GetIndexingConfiguration
- GetJobDocument
- GetLoggingOptions
- GetOTAUpdate
- GetPackage
- GetPackageConfiguration
- GetPackageVersion
- GetPercentiles
- GetPolicy
- GetPolicyVersion
- GetRegistrationCode
- GetStatistics
- GetThingConnectivityData
- GetTopicRule
- GetTopicRuleDestination
- GetV2LoggingOptions
- ListActiveViolations
- ListAttachedPolicies
- ListAuditFindings
- ListAuditMitigationActionsExecutions

- ListAuditMitigationActionsTasks
- ListAuditSuppressions
- ListAuditTasks
- ListAuthorizers
- ListBillingGroups
- ListCACertificates
- ListCertificateProviders
- ListCertificates
- ListCertificatesByCA
- ListCommandExecutions
- ListCommands
- ListCustomMetrics
- ListDetectMitigationActionsExecutions
- ListDetectMitigationActionsTasks
- ListDimensions
- ListDomainConfigurations
- ListFleetMetrics
- ListIndices
- ListJobExecutionsForJob
- ListJobExecutionsForThing
- ListJobs
- ListJobTemplates
- ListManagedJobTemplates
- ListMetricValues
- ListMitigationActions
- ListOTAUpdates
- ListOutgoingCertificates
- ListPackages
- ListPackageVersions
- ListPolicies

- ListPolicyPrincipals
- ListPolicyVersions
- ListPrincipalPolicies
- ListPrincipalThings
- ListPrincipalThingsV2
- ListProvisioningTemplates
- ListProvisioningTemplateVersions
- ListRelatedResourcesForAuditFinding
- ListRoleAliases
- ListSbomValidationResults
- ListScheduledAudits
- ListSecurityProfiles
- ListSecurityProfilesForTarget
- ListStreams
- ListTagsForResource
- ListTargetsForPolicy
- ListTargetsForSecurityProfile
- ListThingGroups
- ListThingGroupsForThing
- ListThingPrincipals
- ListThingPrincipalsV2
- ListThingRegistrationTaskReports
- ListThingRegistrationTasks
- ListThings
- ListThingsInBillingGroup
- ListThingsInThingGroup
- ListThingTypes
- ListTopicRuleDestinations
- ListTopicRules
- ListV2LoggingLevels

- ListViolationEvents
- PutVerificationStateOnViolation
- RegisterCACertificate
- RegisterCertificate
- RegisterCertificateWithoutCA
- RegisterThing
- RejectCertificateTransfer
- RemoveThingFromBillingGroup
- RemoveThingFromThingGroup
- ReplaceTopicRule
- SearchIndex
- SetDefaultAuthorizer
- SetDefaultPolicyVersion
- SetLoggingOptions
- SetV2LoggingLevel
- SetV2LoggingOptions
- StartAuditMitigationActionsTask
- StartDetectMitigationActionsTask
- StartOnDemandAuditTask
- StartThingRegistrationTask
- StopThingRegistrationTask
- TagResource
- TestAuthorization
- TestInvokeAuthorizer
- TransferCertificate
- UntagResource
- UpdateAccountAuditConfiguration
- UpdateAuditSuppression
- UpdateAuthorizer
- UpdateBillingGroup

- UpdateCACertificate
- UpdateCertificate
- UpdateCertificateProvider
- UpdateCommand
- UpdateCustomMetric
- UpdateDimension
- UpdateDomainConfiguration
- UpdateDynamicThingGroup
- UpdateEncryptionConfiguration
- UpdateEventConfigurations
- UpdateFleetMetric
- UpdateIndexingConfiguration
- UpdateJob
- UpdateMitigationAction
- UpdatePackage
- UpdatePackageConfiguration
- UpdatePackageVersion
- UpdateProvisioningTemplate
- UpdateRoleAlias
- UpdateScheduledAudit
- UpdateSecurityProfile
- UpdateStream
- UpdateThing
- UpdateThingGroup
- UpdateThingGroupsForThing
- UpdateThingType
- UpdateTopicRuleDestination
- ValidateSecurityProfileBehaviors

# AcceptCertificateTransfer

Service: AWS IoT

Accepts a pending certificate transfer. The default state of the certificate is INACTIVE.

To check for pending certificate transfers, call ListCertificates to enumerate your certificates.

Requires permission to access the AcceptCertificateTransfer action.

## Request Syntax

```
PATCH /accept-certificate-transfer/certificateId?setAsActive=setAsActive HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**certificateId**

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

**setAsActive**

Specifies whether the certificate is active.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**TransferAlreadyCompletedException**

You can't revert the certificate transfer because the transfer is already complete.

**message**

The message for the exception.

HTTP Status Code: 410

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AddThingToBillingGroup

Service: AWS IoT

Adds a thing to a billing group.

Requires permission to access the AddThingToBillingGroup action.

## Request Syntax

```
PUT /billing-groups/addThingToBillingGroup HTTP/1.1
Content-type: application/json

{
   "billingGroupArn": "string",
   "billingGroupName": "string",
   "thingArn": "string",
   "thingName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**billingGroupArn**

The ARN of the billing group.

Type: String

Required: No

**billingGroupName**

The name of the billing group.

> **Note**
>
> This call is asynchronous. It might take several seconds for the detachment to propagate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingArn**

The ARN of the thing to be added to the billing group.

Type: String

Required: No

**thingName**

The name of the thing to be added to the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AddThingToThingGroup

Service: AWS IoT

Adds a thing to a thing group.

Requires permission to access the AddThingToThingGroup action.

## Request Syntax

```
PUT /thing-groups/addThingToThingGroup HTTP/1.1
Content-type: application/json

{
   "overrideDynamicGroups": boolean,
   "thingArn": "string",
   "thingGroupArn": "string",
   "thingGroupName": "string",
   "thingName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**overrideDynamicGroups**

Override dynamic thing groups with static thing groups when 10-group limit is reached. If a thing belongs to 10 thing groups, and one or more of those groups are dynamic thing groups, adding a thing to a static group removes the thing from the last dynamic group.

Type: Boolean

Required: No

**thingArn**

The ARN of the thing to add to a group.

Type: String

Required: No

**thingGroupArn**

The ARN of the group to which you are adding a thing.

Type: String

Required: No

**thingGroupName**

The name of the group to which you are adding a thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingName**

The name of the thing to add to a group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AssociateSbomWithPackageVersion

Service: AWS IoT

Associates the selected software bill of materials (SBOM) with a specific software package version.

Requires permission to access the AssociateSbomWithPackageVersion action.

## Request Syntax

```
PUT /packages/packageName/versions/versionName/sbom?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "sbom": {
      "s3Location": {
         "bucket": "string",
         "key": "string",
         "version": "string"
      }
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

### packageName

The name of the new software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**versionName**

The name of the new package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**sbom**

A specific software bill of matrerials associated with a software package version.

Type: Sbom object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "packageName": "string",
   "sbom": {
      "s3Location": {
         "bucket": "string",
         "key": "string",
         "version": "string"
      }
   },
   "sbomValidationStatus": "string",
   "versionName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**packageName**

The name of the new software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

**sbom**

A specific software bill of matrerials associated with a software package version.

Type: Sbom object

**sbomValidationStatus**

The status of the initial validation for the software bill of materials against the Software Package Data Exchange (SPDX) and CycloneDX industry standard formats.

Type: String

Valid Values: `IN_PROGRESS | FAILED | SUCCEEDED`

**versionName**

The name of the new package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

## Errors

### ConflictException

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceQuotaExceededException**

Service quota has been exceeded.

HTTP Status Code: 402

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AssociateTargetsWithJob

Service: AWS IoT

Associates a group with a continuous job. The following criteria must be met:

- The job must have been created with the `targetSelection` field set to "CONTINUOUS".
- The job status must currently be "IN_PROGRESS".
- The total number of targets associated with a job must not exceed 100.

Requires permission to access the AssociateTargetsWithJob action.

## Request Syntax

```
POST /jobs/jobId/targets?namespaceId=namespaceId HTTP/1.1
Content-type: application/json

{
   "comment": "string",
   "targets": [ "string" ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### jobId

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

### namespaceId

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/THING_NAME/jobs/JOB_ID/notify-namespace-NAMESPACE_ID/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Pattern: `[a-zA-Z0-9_-]+`

## Request Body

The request accepts the following data in JSON format.

**comment**

An optional comment string describing why the job was associated with the targets.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**targets**

A list of thing group ARNs that define the targets of the job.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Maximum length of 2048.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "description": "string",
   "jobArn": "string",
   "jobId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**description**

A short text description of the job.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

**jobArn**

An ARN identifying the job.

Type: String

**jobId**

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AttachPolicy

Service: AWS IoT

Attaches the specified policy to the specified principal (certificate or other credential).

Requires permission to access the AttachPolicy action.

## Request Syntax

```
PUT /target-policies/policyName HTTP/1.1
Content-type: application/json

{
   "target": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The name of the policy to attach.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### target

The identity to which the policy is attached. For example, a thing group or a certificate.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AttachPrincipalPolicy

Service: AWS IoT

Attaches the specified policy to the specified principal (certificate or other credential).

**Note:** This action is deprecated and works as expected for backward compatibility, but we won't add enhancements. Use AttachPolicy instead.

Requires permission to access the AttachPrincipalPolicy action.

## Request Syntax

```
PUT /principal-policies/policyName HTTP/1.1
x-amzn-iot-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

### principal

The principal, which can be a certificate ARN (as returned from the CreateCertificate operation) or an Amazon Cognito ID.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AttachSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Associates a Device Defender security profile with a thing group or this account. Each thing group or account can have up to five security profiles associated with it.

Requires permission to access the AttachSecurityProfile action.

## Request Syntax

```
PUT /security-profiles/securityProfileName/targets?
securityProfileTargetArn=securityProfileTargetArn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### securityProfileName

The security profile that is attached.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

### securityProfileTargetArn

The ARN of the target (thing group) to which the security profile is attached.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)

- AWS SDK for Ruby V3

# AttachThingPrincipal

Service: AWS IoT

Attaches the specified principal to the specified thing. A principal can be X.509 certificates, Amazon Cognito identities or federated identities.

Requires permission to access the AttachThingPrincipal action.

## Request Syntax

```
PUT /things/thingName/principals?thingPrincipalType=thingPrincipalType HTTP/1.1
x-amzn-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

**principal**

The principal, which can be a certificate ARN (as returned from the CreateCertificate operation) or an Amazon Cognito ID.

Required: Yes

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**thingPrincipalType**

The type of the relation you want to specify when you attach a principal to a thing.

- `EXCLUSIVE_THING` - Attaches the specified principal to the specified thing, exclusively. The thing will be the only thing that's attached to the principal.
- `NON_EXCLUSIVE_THING` - Attaches the specified principal to the specified thing. Multiple things can be attached to the principal.

Valid Values: `EXCLUSIVE_THING | NON_EXCLUSIVE_THING`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CancelAuditMitigationActionsTask

Service: AWS IoT

Cancels a mitigation action task that is in progress. If the task is not in progress, an InvalidRequestException occurs.

Requires permission to access the CancelAuditMitigationActionsTask action.

## Request Syntax

```
PUT /audit/mitigationactions/tasks/taskId/cancel HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**taskId**

The unique identifier for the task that you want to cancel.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CancelAuditTask

Service: AWS IoT

Cancels an audit that is in progress. The audit can be either scheduled or on demand. If the audit isn't in progress, an "InvalidRequestException" occurs.

Requires permission to access the CancelAuditTask action.

## Request Syntax

```
PUT /audit/tasks/taskId/cancel HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The ID of the audit you want to cancel. You can only cancel an audit that is "IN_PROGRESS".

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CancelCertificateTransfer

Service: AWS IoT

Cancels a pending transfer for the specified certificate.

**Note** Only the transfer source account can use this operation to cancel a transfer. (Transfer destinations can use RejectCertificateTransfer instead.) After transfer, AWS IoT returns the certificate to the source account in the INACTIVE state. After the destination account has accepted the transfer, the transfer cannot be cancelled.

After a certificate transfer is cancelled, the status of the certificate changes from PENDING_TRANSFER to INACTIVE.

Requires permission to access the CancelCertificateTransfer action.

## Request Syntax

```
PATCH /cancel-certificate-transfer/certificateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### certificateId

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**TransferAlreadyCompletedException**

You can't revert the certificate transfer because the transfer is already complete.

**message**

The message for the exception.

HTTP Status Code: 410

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CancelDetectMitigationActionsTask

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Cancels a Device Defender ML Detect mitigation action.

Requires permission to access the CancelDetectMitigationActionsTask action.

## Request Syntax

```
PUT /detect/mitigationactions/tasks/taskId/cancel HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The unique identifier of the task.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CancelJob

Service: AWS IoT

Cancels a job.

Requires permission to access the CancelJob action.

## Request Syntax

```
PUT /jobs/jobId/cancel?force=force HTTP/1.1
Content-type: application/json

{
   "comment": "string",
   "reasonCode": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### force

(Optional) If `true` job executions with status "IN_PROGRESS" and "QUEUED" are canceled, otherwise only job executions with status "QUEUED" are canceled. The default is `false`.

Canceling a job which is "IN_PROGRESS", will cause a device which is executing the job to be unable to update the job execution status. Use caution and ensure that each device executing a job which is canceled is able to recover to a valid state.

### jobId

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**comment**

An optional comment string describing why the job was canceled.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**reasonCode**

(Optional)A reason code string that explains why the job was canceled.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\p{Upper}\p{Digit}_]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "description": "string",
   "jobArn": "string",
   "jobId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**description**

A short text description of the job.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

**jobArn**

The job ARN.

Type: String

**jobId**

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CancelJobExecution

Service: AWS IoT

Cancels the execution of a job for a given thing.

Requires permission to access the CancelJobExecution action.

## Request Syntax

```
PUT /things/thingName/jobs/jobId/cancel?force=force HTTP/1.1
Content-type: application/json

{
   "expectedVersion": number,
   "statusDetails": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### force

(Optional) If `true` the job execution will be canceled if it has status IN_PROGRESS or QUEUED, otherwise the job execution will be canceled only if it has status QUEUED. If you attempt to cancel a job execution that is IN_PROGRESS, and you do not set `force` to `true`, then an `InvalidStateTransitionException` will be thrown. The default is `false`.

Canceling a job execution which is "IN_PROGRESS", will cause the device to be unable to update the job execution status. Use caution and ensure that the device is able to recover to a valid state.

### jobId

The ID of the job to be canceled.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**thingName**

The name of the thing whose execution of the job will be canceled.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**expectedVersion**

(Optional) The expected current version of the job execution. Each time you update the job execution, its version is incremented. If the version of the job execution stored in Jobs does not match, the update is rejected with a VersionMismatch error, and an ErrorResponse that contains the current job execution status data is returned. (This makes it unnecessary to perform a separate DescribeJobExecution request in order to obtain the job execution status data.)

Type: Long

Required: No

**statusDetails**

A collection of name/value pairs that describe the status of the job execution. If not specified, the statusDetails are unchanged. You can specify at most 10 name/value pairs.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidStateTransitionException**

An attempt was made to change to an invalid state, for example by deleting a job or a job execution which is "IN_PROGRESS" without setting the `force` parameter.

**message**

The message for the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)

- AWS SDK for Ruby V3

# ClearDefaultAuthorizer

Service: AWS IoT

Clears the default authorizer.

Requires permission to access the ClearDefaultAuthorizer action.

## Request Syntax

```
DELETE /default-authorizer HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ConfirmTopicRuleDestination

Service: AWS IoT

Confirms a topic rule destination. When you create a rule requiring a destination, AWS IoT sends a confirmation message to the endpoint or base address you specify. The message includes a token which you pass back when calling `ConfirmTopicRuleDestination` to confirm that you own or have access to the endpoint.

Requires permission to access the ConfirmTopicRuleDestination action.

## Request Syntax

```
GET /confirmdestination/confirmationToken+ HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**confirmationToken**

The token used to confirm ownership or access to the topic rule confirmation URL.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateAuditSuppression

Service: AWS IoT

Creates a Device Defender audit suppression.

Requires permission to access the CreateAuditSuppression action.

## Request Syntax

```
POST /audit/suppressions/create HTTP/1.1
Content-type: application/json

{
   "checkName": "string",
   "clientRequestToken": "string",
   "description": "string",
   "expirationDate": number,
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
      },
      "roleAliasArn": "string"
   },
   "suppressIndefinitely": boolean
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

Required: Yes

**clientRequestToken**

Each audit supression must have a unique client request token. If you try to create a new audit suppression with the same token as one that already exists, an exception occurs. If you omit this value, AWS SDKs will automatically generate a unique client request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9-_]+$`

Required: Yes

**description**

The description of the audit suppression.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

Required: No

**expirationDate**

The epoch timestamp in seconds at which this suppression expires.

Type: Timestamp

Required: No

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: Yes

**suppressIndefinitely**

Indicates whether a suppression should exist indefinitely or not.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateAuthorizer

Service: AWS IoT

Creates an authorizer.

Requires permission to access the CreateAuthorizer action.

## Request Syntax

```
POST /authorizer/authorizerName HTTP/1.1
Content-type: application/json

{
   "authorizerFunctionArn": "string",
   "enableCachingForHttp": boolean,
   "signingDisabled": boolean,
   "status": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "tokenKeyName": "string",
   "tokenSigningPublicKeys": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### authorizerName

The authorizer name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**authorizerFunctionArn**

The ARN of the authorizer's Lambda function.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: Yes

**enableCachingForHttp**

When `true`, the result from the authorizer's Lambda function is cached for clients that use persistent HTTP connections. The results are cached for the time specified by the Lambda function in `refreshAfterInSeconds`. This value does not affect authorization of clients that use MQTT connections.

The default value is `false`.

Type: Boolean

Required: No

**signingDisabled**

Specifies whether AWS IoT validates the token signature in an authorization request.

Type: Boolean

Required: No

**status**

The status of the create authorizer request.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Required: No

**tags**

Metadata which can be used to manage the custom authorizer.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: &&tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

Type: Array of Tag objects

Required: No

**tokenKeyName**

The name of the token key used to extract the token from the HTTP headers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**tokenSigningPublicKeys**

The public keys used to verify the digital signature returned by your custom authentication service.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Maximum length of 5120.

Value Pattern: `[\s\S]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authorizerArn": "string",
   "authorizerName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authorizerArn**

The authorizer ARN.

Type: String

Length Constraints: Maximum length of 2048.

**authorizerName**

The authorizer's name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateBillingGroup

Service: AWS IoT

Creates a billing group. If this call is made multiple times using the same billing group name and configuration, the call will succeed. If this call is made with the same billing group name but different configuration a `ResourceAlreadyExistsException` is thrown.

Requires permission to access the CreateBillingGroup action.

## Request Syntax

```
POST /billing-groups/billingGroupName HTTP/1.1
Content-type: application/json

{
   "billingGroupProperties": {
      "billingGroupDescription": "string"
   },
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### billingGroupName

The name you wish to give to the billing group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**billingGroupProperties**

The properties of the billing group.

Type: BillingGroupProperties object

Required: No

**tags**

Metadata which can be used to manage the billing group.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "billingGroupArn": "string",
   "billingGroupId": "string",
   "billingGroupName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**billingGroupArn**

The ARN of the billing group.

Type: String

**billingGroupId**

The ID of the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

**billingGroupName**

The name you gave to the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateCertificateFromCsr

Service: AWS IoT

Creates an X.509 certificate using the specified certificate signing request.

Requires permission to access the CreateCertificateFromCsr action.

> **Note**
>
> The CSR must include a public key that is either an RSA key with a length of at least 2048 bits or an ECC key from NIST P-256, NIST P-384, or NIST P-521 curves. For supported certificates, consult Certificate signing algorithms supported by AWS IoT.

> **Note**
>
> Reusing the same certificate signing request (CSR) results in a distinct certificate.

You can create multiple certificates in a batch by creating a directory, copying multiple `.csr` files into that directory, and then specifying that directory on the command line. The following commands show how to create a batch of certificates given a batch of CSRs. In the following commands, we assume that a set of CSRs are located inside of the directory my-csr-directory:

On Linux and OS X, the command is:

```
$ ls my-csr-directory/ | xargs -I {} aws iot create-certificate-from-csr --certificate-signing-request file://my-csr-directory/{}
```

This command lists all of the CSRs in my-csr-directory and pipes each CSR file name to the `aws iot create-certificate-from-csr` AWS CLI command to create a certificate for the corresponding CSR.

You can also run the `aws iot create-certificate-from-csr` part of the command in parallel to speed up the certificate creation process:

```
$ ls my-csr-directory/ | xargs -P 10 -I {} aws iot create-certificate-from-csr --certificate-signing-request file://my-csr-directory/{}
```

On Windows PowerShell, the command to create certificates for all CSRs in my-csr-directory is:

```
> ls -Name my-csr-directory | %{aws iot create-certificate-from-csr --
certificate-signing-request file://my-csr-directory/$_}
```

On a Windows command prompt, the command to create certificates for all CSRs in my-csr-directory is:

```
> forfiles /p my-csr-directory /c "cmd /c aws iot create-certificate-from-
csr --certificate-signing-request file://@path"
```

## Request Syntax

```
POST /certificates?setAsActive=setAsActive HTTP/1.1
Content-type: application/json

{
   "certificateSigningRequest": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

**setAsActive**

Specifies whether the certificate is active.

## Request Body

The request accepts the following data in JSON format.

**certificateSigningRequest**

The certificate signing request (CSR).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: `[\s\S]*`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateArn": "string",
   "certificateId": "string",
   "certificatePem": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateArn**

The Amazon Resource Name (ARN) of the certificate. You can use the ARN as a principal for policy operations.

Type: String

**certificateId**

The ID of the certificate. Certificate management operations only take a certificateId.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

**certificatePem**

The certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateCertificateProvider

Service: AWS IoT

Creates an AWS IoT Core certificate provider. You can use AWS IoT Core certificate provider to customize how to sign a certificate signing request (CSR) in AWS IoT fleet provisioning. For more information, see Customizing certificate signing using AWS IoT Core certificate provider from *AWS IoT Core Developer Guide*.

Requires permission to access the CreateCertificateProvider action.

> **Important**
>
> After you create a certificate provider, the behavior of `CreateCertificateFromCsr` API for fleet provisioning will change and all API calls to `CreateCertificateFromCsr` will invoke the certificate provider to create the certificates. It can take up to a few minutes for this behavior to change after a certificate provider is created.

## Request Syntax

```
POST /certificate-providers/certificateProviderName HTTP/1.1
Content-type: application/json

{
   "accountDefaultForOperations": [ "string" ],
   "clientToken": "string",
   "lambdaFunctionArn": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

**certificateProviderName**

The name of the certificate provider.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**accountDefaultForOperations**

A list of the operations that the certificate provider will use to generate certificates. Valid value: `CreateCertificateFromCsr`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `CreateCertificateFromCsr`

Required: Yes

**clientToken**

A string that you can optionally pass in the `CreateCertificateProvider` request to make sure the request is idempotent.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

Required: No

**lambdaFunctionArn**

The ARN of the Lambda function that defines the authentication logic.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: Yes

**tags**

Metadata which can be used to manage the certificate provider.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateProviderArn": "string",
   "certificateProviderName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateProviderArn**

The ARN of the certificate provider.

Type: String

Length Constraints: Maximum length of 2048.

**certificateProviderName**

The name of the certificate provider.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateCommand

Service: AWS IoT

Creates a command. A command contains reusable configurations that can be applied before they are sent to the devices.

## Request Syntax

```
PUT /commands/commandId HTTP/1.1
Content-type: application/json

{
   "description": "string",
   "displayName": "string",
   "mandatoryParameters": [
      {
         "defaultValue": {
            "B": boolean,
            "BIN": blob,
            "D": number,
            "I": number,
            "L": number,
            "S": "string",
            "UL": "string"
         },
         "description": "string",
         "name": "string",
         "type": "string",
         "value": {
            "B": boolean,
            "BIN": blob,
            "D": number,
            "I": number,
            "L": number,
            "S": "string",
            "UL": "string"
         },
         "valueConditions": [
            {
               "comparisonOperator": "string",
               "operand": {
                  "number": "string",
                  "numberRange": {
```

```
                    "max": "string",
                    "min": "string"
                 },
                 "numbers": [ "string" ],
                 "string": "string",
                 "strings": [ "string" ]
              }
           }
        ]
     }
  ],
  "namespace": "string",
  "payload": {
     "content": blob,
     "contentType": "string"
  },
  "payloadTemplate": "string",
  "preprocessor": {
     "awsJsonSubstitution": {
        "outputFormat": "string"
     }
  },
  "roleArn": "string",
  "tags": [
     {
        "Key": "string",
        "Value": "string"
     }
  ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### commandId

A unique identifier for the command. We recommend using UUID. Alpha-numeric characters, hyphens, and underscores are valid for use here.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**description**

A short text decription of the command.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]*`

Required: No

**displayName**

The user-friendly name in the console for the command. This name doesn't have to be unique. You can update the user-friendly name after you define it.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `[^\p{C}]*`

Required: No

**mandatoryParameters**

A list of parameters that are used by `StartCommandExecution` API for execution payload generation.

Type: Array of CommandParameter objects

Array Members: Minimum number of 1 item.

Required: No

**namespace**

The namespace of the command. The MQTT reserved topics and validations will be used for command executions according to the namespace setting.

Type: String

Valid Values: `AWS-IoT | AWS-IoT-FleetWise`

Required: No

**payload**

The payload object for the static command.

You can upload a static payload file from your local storage that contains the instructions for the device to process. The payload file can use any format. To make sure that the device correctly interprets the payload, we recommend you to specify the payload content type.

Type: CommandPayload object

Required: No

**payloadTemplate**

The payload template for the dynamic command.

> **Note**
>
> This parameter is required for dynamic commands where the command execution placeholders are supplied either from `mandatoryParameters` or when `StartCommandExecution` is invoked.

Type: String

Length Constraints: Maximum length of 32768.

Required: No

**preprocessor**

Configuration that determines how `payloadTemplate` is processed to generate command execution payload.

> **Note**
>
> This parameter is required for dynamic commands, along with `payloadTemplate`, and `mandatoryParameters`.

Type: CommandPreprocessor object

Required: No

**roleArn**

The IAM role that you must provide when using the `AWS-IoT-FleetWise` namespace. The role grants IoT Device Management the permission to access IoT FleetWise resources for generating the payload for the command. This field is not supported when you use the `AWS-IoT` namespace.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**tags**

Name-value pairs that are used as metadata to manage a command.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "commandArn": "string",
   "commandId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**commandArn**

The Amazon Resource Number (ARN) of the command. For example, `arn:aws:iot:<region>:<accountid>:command/<commandId>`

Type: String

**commandId**

The unique identifier for the command.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ServiceQuotaExceededException**

Service quota has been exceeded.

HTTP Status Code: 402

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateCustomMetric

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Use this API to define a Custom Metric published by your devices to Device Defender.

Requires permission to access the CreateCustomMetric action.

## Request Syntax

```
POST /custom-metric/metricName HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "displayName": "string",
   "metricType": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### metricName

The name of the custom metric. This will be used in the metric report submitted from the device/thing. The name can't begin with `aws:`. You can't change the name after you define it.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**clientRequestToken**

Each custom metric must have a unique client request token. If you try to create a new custom metric that already exists with a different token, an exception occurs. If you omit this value, AWS SDKs will automatically generate a unique client request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9-_]+$`

Required: Yes

**displayName**

The friendly name in the console for the custom metric. This name doesn't have to be unique. Don't use this name as the metric identifier in the device metric report. You can update the friendly name after you define it.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\p{Graph}\x20]*`

Required: No

**metricType**

The type of the custom metric.

> **Important**
>
> The type `number` only takes a single metric value as an input, but when you submit the metrics value in the DeviceMetrics report, you must pass it as an array with a single value.

Type: String

Valid Values: `string-list | ip-address-list | number-list | number`

Required: Yes

**tags**

Metadata that can be used to manage the custom metric.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "metricArn": "string",
   "metricName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**metricArn**

The Amazon Resource Number (ARN) of the custom metric. For example, `arn:aws-partition:iot:region:accountId:custommetric/metricName`

Type: String

**metricName**

The name of the custom metric to be used in the metric report.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateDimension

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Create a dimension that you can use to limit the scope of a metric used in a security profile for AWS IoT Device Defender. For example, using a `TOPIC_FILTER` dimension, you can narrow down the scope of the metric only to MQTT topics whose name match the pattern specified in the dimension.

Requires permission to access the CreateDimension action.

## Request Syntax

```
POST /dimensions/name HTTP/1.1
Content-type: application/json

{
   "clientRequestToken": "string",
   "stringValues": [ "string" ],
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "type": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

**name**

A unique identifier for the dimension. Choose something that describes the type and value to make it easy to remember what it does.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**clientRequestToken**

Each dimension must have a unique client request token. If you try to create a new dimension with the same token as a dimension that already exists, an exception occurs. If you omit this value, AWS SDKs will automatically generate a unique client request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9-_]+$`

Required: Yes

**stringValues**

Specifies the value or list of values for the dimension. For `TOPIC_FILTER` dimensions, this is a pattern used to match the MQTT topic (for example, "admin/#").

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

**tags**

Metadata that can be used to manage the dimension.

Type: Array of Tag objects

Required: No

**type**

Specifies the type of dimension. Supported types: `TOPIC_FILTER.`

Type: String

Valid Values: `TOPIC_FILTER`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "arn": "string",
   "name": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**arn**

The Amazon Resource Name (ARN) of the created dimension.

Type: String

**name**

A unique identifier for the dimension.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateDomainConfiguration

Service: AWS IoT

Creates a domain configuration.

Requires permission to access the CreateDomainConfiguration action.

## Request Syntax

```
POST /domainConfigurations/domainConfigurationName HTTP/1.1
Content-type: application/json

{
   "applicationProtocol": "string",
   "authenticationType": "string",
   "authorizerConfig": {
      "allowAuthorizerOverride": boolean,
      "defaultAuthorizerName": "string"
   },
   "clientCertificateConfig": {
      "clientCertificateCallbackArn": "string"
   },
   "domainName": "string",
   "serverCertificateArns": [ "string" ],
   "serverCertificateConfig": {
      "enableOCSPCheck": boolean,
      "ocspAuthorizedResponderArn": "string",
      "ocspLambdaArn": "string"
   },
   "serviceType": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "tlsConfig": {
      "securityPolicy": "string"
   },
   "validationCertificateArn": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### domainConfigurationName

The name of the domain configuration. This value must be unique to a region.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### applicationProtocol

An enumerated string that specifies the application-layer protocol.

- `SECURE_MQTT` - MQTT over TLS.
- `MQTT_WSS` - MQTT over WebSocket.
- `HTTPS` - HTTP over TLS.
- `DEFAULT` - Use a combination of port and Application Layer Protocol Negotiation (ALPN) to specify application_layer protocol. For more information, see Device communication protocols.

Type: String

Valid Values: `SECURE_MQTT | MQTT_WSS | HTTPS | DEFAULT`

Required: No

### authenticationType

An enumerated string that specifies the authentication type.

- `CUSTOM_AUTH_X509` - Use custom authentication and authorization with additional details from the X.509 client certificate.

- CUSTOM_AUTH - Use custom authentication and authorization. For more information, see Custom authentication and authorization.
- AWS_X509 - Use X.509 client certificates without custom authentication and authorization. For more information, see X.509 client certificates.
- AWS_SIGV4 - Use AWS Signature Version 4. For more information, see IAM users, groups, and roles.
- DEFAULT - Use a combination of port and Application Layer Protocol Negotiation (ALPN) to specify authentication type. For more information, see Device communication protocols.

Type: String

Valid Values: CUSTOM_AUTH_X509 | CUSTOM_AUTH | AWS_X509 | AWS_SIGV4 | DEFAULT

Required: No

**authorizerConfig**

An object that specifies the authorization service for a domain.

Type: AuthorizerConfig object

Required: No

**clientCertificateConfig**

An object that specifies the client certificate configuration for a domain.

Type: ClientCertificateConfig object

Required: No

**domainName**

The name of the domain.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: [\s\S]*

Required: No

**serverCertificateArns**

The ARNs of the certificates that AWS IoT passes to the device during the TLS handshake. Currently you can specify only one certificate ARN. This value is not required for AWS-managed domains.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws(-cn|-us-gov|-iso-b|-iso)?:acm:[a-z]{2}-(gov-|iso-|isob-)?[a-z]{4,9}-\d{1}:\d{12}:certificate/[a-zA-Z0-9/-]+`

Required: No

**serverCertificateConfig**

The server certificate configuration.

Type: ServerCertificateConfig object

Required: No

**serviceType**

The type of service delivered by the endpoint.

> **Note**
>
> AWS IoT Core currently supports only the `DATA` service type.

Type: String

Valid Values: `DATA | CREDENTIAL_PROVIDER | JOBS`

Required: No

**tags**

Metadata which can be used to manage the domain configuration.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: &&tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

Type: Array of Tag objects

Required: No

**tlsConfig**

An object that specifies the TLS configuration for a domain.

Type: TlsConfig object

Required: No

**validationCertificateArn**

The certificate used to validate the server certificate and prove domain name ownership. This certificate must be signed by a public certificate authority. This value is not required for AWS-managed domains.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws(-cn|-us-gov|-iso-b|-iso)?:acm:[a-z]{2}-(gov-|iso-|isob-)?[a-z]{4,9}-\d{1}:\d{12}:certificate/[a-zA-Z0-9/-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "domainConfigurationArn": "string",
```

```
   "domainConfigurationName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**domainConfigurationArn**

The ARN of the domain configuration.

Type: String

**domainConfigurationName**

The name of the domain configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.-]+`

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateDynamicThingGroup

Service: AWS IoT

Creates a dynamic thing group.

Requires permission to access the CreateDynamicThingGroup action.

## Request Syntax

```
POST /dynamic-thing-groups/thingGroupName HTTP/1.1
Content-type: application/json

{
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "thingGroupProperties": {
      "attributePayload": {
         "attributes": {
            "string" : "string"
         },
         "merge": boolean
      },
      "thingGroupDescription": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingGroupName

The dynamic thing group name to create.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**indexName**

The dynamic thing group index name.

> **Note**
>
> Currently one index is supported: `AWS_Things`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**queryString**

The dynamic thing group search query string.

See Query Syntax for information about query string syntax.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The dynamic thing group query version.

> **Note**
>
> Currently one query version is supported: "2017-09-30". If not specified, the query version defaults to this value.

Type: String

Required: No

**tags**

Metadata which can be used to manage the dynamic thing group.

Type: Array of Tag objects

Required: No

**thingGroupProperties**

The dynamic thing group properties.

Type: ThingGroupProperties object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string",
   "thingGroupArn": "string",
   "thingGroupId": "string",
   "thingGroupName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**indexName**

The dynamic thing group index name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**queryString**

The dynamic thing group search query string.

Type: String

Length Constraints: Minimum length of 1.

**queryVersion**

The dynamic thing group query version.

Type: String

**thingGroupArn**

The dynamic thing group ARN.

Type: String

**thingGroupId**

The dynamic thing group ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

**thingGroupName**

The dynamic thing group name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateFleetMetric

Service: AWS IoT

Creates a fleet metric.

Requires permission to access the CreateFleetMetric action.

## Request Syntax

```
PUT /fleet-metric/metricName HTTP/1.1
Content-type: application/json

{
   "aggregationField": "string",
   "aggregationType": {
      "name": "string",
      "values": [ "string" ]
   },
   "description": "string",
   "indexName": "string",
   "period": number,
   "queryString": "string",
   "queryVersion": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "unit": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### metricName

The name of the fleet metric to create.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**aggregationField**

The field to aggregate.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**aggregationType**

The type of the aggregation query.

Type: AggregationType object

Required: Yes

**description**

The fleet metric description.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{Graph}\x20]*`

Required: No

**indexName**

The name of the index to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**period**

The time in seconds between fleet metric emissions. Range [60(1 min), 86400(1 day)] and must be multiple of 60.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 86400.

Required: Yes

**queryString**

The search query string.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The query version.

Type: String

Required: No

**tags**

Metadata, which can be used to manage the fleet metric.

Type: Array of Tag objects

Required: No

**unit**

Used to support unit transformation such as milliseconds to seconds. The unit must be supported by CW metric. Default to null.

Type: String

Valid Values: `Seconds | Microseconds | Milliseconds | Bytes | Kilobytes | Megabytes | Gigabytes | Terabytes | Bits | Kilobits | Megabits | Gigabits | Terabits | Percent | Count | Bytes/Second | Kilobytes/Second | Megabytes/Second | Gigabytes/Second | Terabytes/Second | Bits/Second | Kilobits/Second | Megabits/Second | Gigabits/Second | Terabits/Second | Count/Second | None`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "metricArn": "string",
   "metricName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**metricArn**

The Amazon Resource Name (ARN) of the new fleet metric.

Type: String

**metricName**

The name of the fleet metric to create.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidAggregationException**

The aggregation is invalid.

HTTP Status Code: 400

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateJob

Service: AWS IoT

Creates a job.

Requires permission to access the CreateJob action.

## Request Syntax

```
PUT /jobs/jobId HTTP/1.1
Content-type: application/json

{
   "abortConfig": {
      "criteriaList": [
         {
            "action": "string",
            "failureType": "string",
            "minNumberOfExecutedThings": number,
            "thresholdPercentage": number
         }
      ]
   },
   "description": "string",
   "destinationPackageVersions": [ "string" ],
   "document": "string",
   "documentParameters": {
      "string" : "string"
   },
   "documentSource": "string",
   "jobExecutionsRetryConfig": {
      "criteriaList": [
         {
            "failureType": "string",
            "numberOfRetries": number
         }
      ]
   },
   "jobExecutionsRolloutConfig": {
      "exponentialRate": {
         "baseRatePerMinute": number,
         "incrementFactor": number,
         "rateIncreaseCriteria": {
```

```
            "numberOfNotifiedThings": number,
            "numberOfSucceededThings": number
         }
      },
      "maximumPerMinute": number
   },
   "jobTemplateArn": "string",
   "namespaceId": "string",
   "presignedUrlConfig": {
      "expiresInSec": number,
      "roleArn": "string"
   },
   "schedulingConfig": {
      "endBehavior": "string",
      "endTime": "string",
      "maintenanceWindows": [
         {
            "durationInMinutes": number,
            "startTime": "string"
         }
      ],
      "startTime": "string"
   },
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "targets": [ "string" ],
   "targetSelection": "string",
   "timeoutConfig": {
      "inProgressTimeoutInMinutes": number
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**jobId**

A job identifier which must be unique for your account. We recommend using a UUID. Alpha-numeric characters, "-" and "_" are valid for use here.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**abortConfig**

Allows you to create the criteria to abort a job.

Type: AbortConfig object

Required: No

**description**

A short text description of the job.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**destinationPackageVersions**

The package version Amazon Resource Names (ARNs) that are installed on the device when the job successfully completes. The package version must be in either the Published or Deprecated state when the job deploys. For more information, see Package version lifecycle.

**Note:**The following Length Constraints relates to a single ARN. Up to 25 package version ARNs are allowed.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

**document**

The job document. Required if you don't specify a value for `documentSource`.

Type: String

Length Constraints: Maximum length of 32768.

Required: No

**documentParameters**

Parameters of an AWS managed template that you can specify to create the job document.

> **Note**
>
> `documentParameters` can only be used when creating jobs from AWS managed templates. This parameter can't be used with custom job templates or to create jobs from them.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_-]+`

Value Length Constraints: Minimum length of 1. Maximum length of 30720.

Value Pattern: `[^\p{C}]+`

Required: No

**documentSource**

An S3 link, or S3 object URL, to the job document. The link is an Amazon S3 object URL and is required if you don't specify a value for `document`.

For example, `--document-source https://s3.region-code.amazonaws.com/example-firmware/device-firmware.1.0`

For more information, see Methods for accessing a bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1350.

Required: No

**jobExecutionsRetryConfig**

Allows you to create the criteria to retry a job.

Type: JobExecutionsRetryConfig object

Required: No

**jobExecutionsRolloutConfig**

Allows you to create a staged rollout of the job.

Type: JobExecutionsRolloutConfig object

Required: No

**jobTemplateArn**

The ARN of the job template used to create the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

**namespaceId**

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/THING_NAME/jobs/JOB_ID/notify-namespace-NAMESPACE_ID/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Type: String

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**presignedUrlConfig**

Configuration information for pre-signed S3 URLs.

Type: PresignedUrlConfig object

Required: No

**schedulingConfig**

The configuration that allows you to schedule a job for a future date and time in addition to specifying the end behavior for each job execution.

Type: SchedulingConfig object

Required: No

**tags**

Metadata which can be used to manage the job.

Type: Array of Tag objects

Required: No

**targets**

A list of things and thing groups to which the job should be sent.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Maximum length of 2048.

Required: Yes

**targetSelection**

Specifies whether the job will continue to run (CONTINUOUS), or will be complete after all those things specified as targets have completed the job (SNAPSHOT). If continuous, the job may also be run on a thing when a change is detected in a target. For example, a job will run on a thing when the thing is added to a target group, even after the job was completed by all things originally in the group.

> **Note**
>
> We recommend that you use continuous jobs instead of snapshot jobs for dynamic thing group targets. By using continuous jobs, devices that join the group receive the job execution even after the job has been created.

Type: String

Valid Values: `CONTINUOUS | SNAPSHOT`

Required: No

**timeoutConfig**

Specifies the amount of time each device has to finish its execution of the job. The timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the time expires, it will be automatically set to `TIMED_OUT`.

Type: TimeoutConfig object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "description": "string",
   "jobArn": "string",
```

```
   "jobId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**description**

The job description.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

**jobArn**

The job ARN.

Type: String

**jobId**

The unique identifier you assigned to this job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateJobTemplate

Service: AWS IoT

Creates a job template.

Requires permission to access the CreateJobTemplate action.

## Request Syntax

```
PUT /job-templates/jobTemplateId HTTP/1.1
Content-type: application/json

{
   "abortConfig": {
      "criteriaList": [
         {
            "action": "string",
            "failureType": "string",
            "minNumberOfExecutedThings": number,
            "thresholdPercentage": number
         }
      ]
   },
   "description": "string",
   "destinationPackageVersions": [ "string" ],
   "document": "string",
   "documentSource": "string",
   "jobArn": "string",
   "jobExecutionsRetryConfig": {
      "criteriaList": [
         {
            "failureType": "string",
            "numberOfRetries": number
         }
      ]
   },
   "jobExecutionsRolloutConfig": {
      "exponentialRate": {
         "baseRatePerMinute": number,
         "incrementFactor": number,
         "rateIncreaseCriteria": {
            "numberOfNotifiedThings": number,
            "numberOfSucceededThings": number
```

```
            }
        },
        "maximumPerMinute": number
    },
    "maintenanceWindows": [
        {
            "durationInMinutes": number,
            "startTime": "string"
        }
    ],
    "presignedUrlConfig": {
        "expiresInSec": number,
        "roleArn": "string"
    },
    "tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "timeoutConfig": {
        "inProgressTimeoutInMinutes": number
    }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### jobTemplateId

A unique identifier for the job template. We recommend using a UUID. Alpha-numeric characters, "-", and "_" are valid for use here.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### abortConfig

The criteria that determine when and how a job abort takes place.

Type: AbortConfig object

Required: No

### description

A description of the job document.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: Yes

### destinationPackageVersions

The package version Amazon Resource Names (ARNs) that are installed on the device when the job successfully completes. The package version must be in either the Published or Deprecated state when the job deploys. For more information, see Package version lifecycle.

**Note:**The following Length Constraints relates to a single ARN. Up to 25 package version ARNs are allowed.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

### document

The job document. Required if you don't specify a value for `documentSource`.

Type: String

Length Constraints: Maximum length of 32768.

Required: No

**documentSource**

An S3 link, or S3 object URL, to the job document. The link is an Amazon S3 object URL and is required if you don't specify a value for `document`.

For example, `--document-source https://s3.region-code.amazonaws.com/example-firmware/device-firmware.1.0`

For more information, see Methods for accessing a bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1350.

Required: No

**jobArn**

The ARN of the job to use as the basis for the job template.

Type: String

Required: No

**jobExecutionsRetryConfig**

Allows you to create the criteria to retry a job.

Type: JobExecutionsRetryConfig object

Required: No

**jobExecutionsRolloutConfig**

Allows you to create a staged rollout of a job.

Type: JobExecutionsRolloutConfig object

Required: No

**maintenanceWindows**

Allows you to configure an optional maintenance window for the rollout of a job document to all devices in the target group for a job.

Type: Array of MaintenanceWindow objects

Required: No

**presignedUrlConfig**

Configuration for pre-signed S3 URLs.

Type: PresignedUrlConfig object

Required: No

**tags**

Metadata that can be used to manage the job template.

Type: Array of Tag objects

Required: No

**timeoutConfig**

Specifies the amount of time each device has to finish its execution of the job. A timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the timer expires, it will be automatically set to `TIMED_OUT`.

Type: TimeoutConfig object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "jobTemplateArn": "string",
   "jobTemplateId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**jobTemplateArn**

The ARN of the job template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

**jobTemplateId**

The unique identifier of the job template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateKeysAndCertificate

Service: AWS IoT

Creates a 2048-bit RSA key pair and issues an X.509 certificate using the issued public key. You can also call `CreateKeysAndCertificate` over MQTT from a device, for more information, see Provisioning MQTT API.

**Note** This is the only time AWS IoT issues the private key for this certificate, so it is important to keep it in a secure location.

Requires permission to access the CreateKeysAndCertificate action.

## Request Syntax

```
POST /keys-and-certificate?setAsActive=setAsActive HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### setAsActive

Specifies whether the certificate is active.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateArn": "string",
   "certificateId": "string",
   "certificatePem": "string",
   "keyPair": {
      "PrivateKey": "string",
      "PublicKey": "string"
   }
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateArn**

The ARN of the certificate.

Type: String

**certificateId**

The ID of the certificate. AWS IoT issues a default subject name for the certificate (for example, AWS IoT Certificate).

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

**certificatePem**

The certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

**keyPair**

The generated key pair.

Type: KeyPair object

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateMitigationAction

Service: AWS IoT

Defines an action that can be applied to audit findings by using StartAuditMitigationActionsTask. Only certain types of mitigation actions can be applied to specific check names. For more information, see Mitigation actions. Each mitigation action can apply only one type of change.

Requires permission to access the CreateMitigationAction action.

## Request Syntax

```
POST /mitigationactions/actions/actionName HTTP/1.1
Content-type: application/json

{
   "actionParams": {
      "addThingsToThingGroupParams": {
         "overrideDynamicGroups": boolean,
         "thingGroupNames": [ "string" ]
      },
      "enableIoTLoggingParams": {
         "logLevel": "string",
         "roleArnForLogging": "string"
      },
      "publishFindingToSnsParams": {
         "topicArn": "string"
      },
      "replaceDefaultPolicyVersionParams": {
         "templateName": "string"
      },
      "updateCACertificateParams": {
         "action": "string"
      },
      "updateDeviceCertificateParams": {
         "action": "string"
      }
   },
   "roleArn": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
```

```
    ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

**actionName**

A friendly name for the action. Choose a friendly name that accurately describes the action (for example, `EnableLoggingAction`).

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**actionParams**

Defines the type of action and the parameters for that action.

Type: MitigationActionParams object

Required: Yes

**roleArn**

The ARN of the IAM role that is used to apply the mitigation action.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**tags**

Metadata that can be used to manage the mitigation action.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "actionArn": "string",
   "actionId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**actionArn**

The ARN for the new mitigation action.

Type: String

**actionId**

A unique identifier for the new mitigation action.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateOTAUpdate

Service: AWS IoT

Creates an AWS IoT OTA update on a target group of things or groups.

Requires permission to access the CreateOTAUpdate action.

## Request Syntax

```
POST /otaUpdates/otaUpdateId HTTP/1.1
Content-type: application/json

{
   "additionalParameters": {
      "string" : "string"
   },
   "awsJobAbortConfig": {
      "abortCriteriaList": [
         {
            "action": "string",
            "failureType": "string",
            "minNumberOfExecutedThings": number,
            "thresholdPercentage": number
         }
      ]
   },
   "awsJobExecutionsRolloutConfig": {
      "exponentialRate": {
         "baseRatePerMinute": number,
         "incrementFactor": number,
         "rateIncreaseCriteria": {
            "numberOfNotifiedThings": number,
            "numberOfSucceededThings": number
         }
      },
      "maximumPerMinute": number
   },
   "awsJobPresignedUrlConfig": {
      "expiresInSec": number
   },
   "awsJobTimeoutConfig": {
      "inProgressTimeoutInMinutes": number
   },
```

```
    "description": "string",
    "files": [
      {
         "attributes": {
            "string" : "string"
         },
         "codeSigning": {
            "awsSignerJobId": "string",
            "customCodeSigning": {
               "certificateChain": {
                  "certificateName": "string",
                  "inlineDocument": "string"
               },
               "hashAlgorithm": "string",
               "signature": {
                  "inlineDocument": blob
               },
               "signatureAlgorithm": "string"
            },
            "startSigningJobParameter": {
               "destination": {
                  "s3Destination": {
                     "bucket": "string",
                     "prefix": "string"
                  }
               },
               "signingProfileName": "string",
               "signingProfileParameter": {
                  "certificateArn": "string",
                  "certificatePathOnDevice": "string",
                  "platform": "string"
               }
            }
         },
         "fileLocation": {
            "s3Location": {
               "bucket": "string",
               "key": "string",
               "version": "string"
            },
            "stream": {
               "fileId": number,
               "streamId": "string"
            }
```

```
            },
            "fileName": "string",
            "fileType": number,
            "fileVersion": "string"
         }
      ],
      "protocols": [ "string" ],
      "roleArn": "string",
      "tags": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "targets": [ "string" ],
      "targetSelection": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### otaUpdateId

The ID of the OTA update to be created.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### additionalParameters

A list of additional OTA update parameters, which are name-value pairs. They won't be sent to devices as a part of the Job document.

Type: String to string map

Value Length Constraints: Minimum length of 0. Maximum length of 4096.

Value Pattern: `[\s\S]*`

Required: No

**awsJobAbortConfig**

The criteria that determine when and how a job abort takes place.

Type: AwsJobAbortConfig object

Required: No

**awsJobExecutionsRolloutConfig**

Configuration for the rollout of OTA updates.

Type: AwsJobExecutionsRolloutConfig object

Required: No

**awsJobPresignedUrlConfig**

Configuration information for pre-signed URLs.

Type: AwsJobPresignedUrlConfig object

Required: No

**awsJobTimeoutConfig**

Specifies the amount of time each device has to finish its execution of the job. A timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the timer expires, it will be automatically set to `TIMED_OUT`.

Type: AwsJobTimeoutConfig object

Required: No

**description**

The description of the OTA update.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**files**

The files to be streamed by the OTA update.

Type: Array of OTAUpdateFile objects

Array Members: Minimum number of 1 item.

Required: Yes

**protocols**

The protocol used to transfer the OTA update image. Valid values are [HTTP], [MQTT], [HTTP, MQTT]. When both HTTP and MQTT are specified, the target device can choose the protocol.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: `MQTT | HTTP`

Required: No

**roleArn**

The IAM role that grants AWS IoT Core access to the Amazon S3, AWS IoT jobs and AWS Code Signing resources to create an OTA update job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**tags**

Metadata which can be used to manage updates.

Type: Array of Tag objects

Required: No

**targets**

The devices targeted to receive OTA updates.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: Yes

**targetSelection**

Specifies whether the update will continue to run (CONTINUOUS), or will be complete after all the things specified as targets have completed the update (SNAPSHOT). If continuous, the update may also be run on a thing when a change is detected in a target. For example, an update will run on a thing when the thing is added to a target group, even after the update was completed by all things originally in the group. Valid values: CONTINUOUS | SNAPSHOT.

Type: String

Valid Values: `CONTINUOUS | SNAPSHOT`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "awsIotJobArn": "string",
   "awsIotJobId": "string",
   "otaUpdateArn": "string",
   "otaUpdateId": "string",
   "otaUpdateStatus": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**awsIotJobArn**

The AWS IoT job ARN associated with the OTA update.

Type: String

**awsIotJobId**

The AWS IoT job ID associated with the OTA update.

Type: String

**otaUpdateArn**

The OTA update ARN.

Type: String

**otaUpdateId**

The OTA update ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**otaUpdateStatus**

The OTA update status.

Type: String

Valid Values: `CREATE_PENDING | CREATE_IN_PROGRESS | CREATE_COMPLETE | CREATE_FAILED | DELETE_IN_PROGRESS | DELETE_FAILED`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreatePackage

Service: AWS IoT

Creates an AWS IoT software package that can be deployed to your fleet.

Requires permission to access the CreatePackage and GetIndexingConfiguration actions.

## Request Syntax

```
PUT /packages/packageName?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "description": "string",
   "tags": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

### packageName

The name of the new software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

A summary of the package being created. This can be used to outline the package's contents or purpose.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

Required: No

### tags

Metadata that can be used to manage the package.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "description": "string",
   "packageArn": "string",
   "packageName": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**description**

The package description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

**packageArn**

The Amazon Resource Name (ARN) for the package.

Type: String

**packageName**

The name of the software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ServiceQuotaExceededException**

Service quota has been exceeded.

HTTP Status Code: 402

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreatePackageVersion

Service: AWS IoT

Creates a new version for an existing AWS IoT software package.

Requires permission to access the CreatePackageVersion and GetIndexingConfiguration actions.

## Request Syntax

```
PUT /packages/packageName/versions/versionName?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "artifact": {
      "s3Location": {
         "bucket": "string",
         "key": "string",
         "version": "string"
      }
   },
   "attributes": {
      "string" : "string"
   },
   "description": "string",
   "recipe": "string",
   "tags": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: \S{36,64}

**packageName**

The name of the associated software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**versionName**

The name of the new package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**artifact**

The various build components created during the build process such as libraries and configuration files that make up a software package version.

Type: PackageVersionArtifact object

Required: No

**attributes**

Metadata that can be used to define a package version's configuration. For example, the S3 file location, configuration options that are being sent to the device or fleet.

The combined size of all the attributes on a package version is limited to 3KB.

Type: String to string map

Key Length Constraints: Minimum length of 1.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

### description

A summary of the package version being created. This can be used to outline the package's contents or purpose.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

Required: No

### recipe

The inline job document associated with a software package version used for a quick job deployment.

Type: String

Length Constraints: Maximum length of 3072.

Required: No

### tags

Metadata that can be used to manage the package version.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "attributes": {
      "string" : "string"
   },
   "description": "string",
   "errorReason": "string",
   "packageName": "string",
   "packageVersionArn": "string",
   "status": "string",
   "versionName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### attributes

Metadata that were added to the package version that can be used to define a package version's configuration.

Type: String to string map

Key Length Constraints: Minimum length of 1.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

### description

The package version description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

**errorReason**

Error reason for a package version failure during creation or update.

Type: String

**packageName**

The name of the associated software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

**packageVersionArn**

The Amazon Resource Name (ARN) for the package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

**status**

The status of the package version. For more information, see Package version lifecycle.

Type: String

Valid Values: `DRAFT | PUBLISHED | DEPRECATED`

**versionName**

The name of the new package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ServiceQuotaExceededException**

Service quota has been exceeded.

HTTP Status Code: 402

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreatePolicy

Service: AWS IoT

Creates an AWS IoT policy.

The created policy is the default version for the policy. This operation creates a policy version with a version identifier of **1** and sets **1** as the policy's default version.

Requires permission to access the CreatePolicy action.

## Request Syntax

```
POST /policies/policyName HTTP/1.1
Content-type: application/json

{
   "policyDocument": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**policyDocument**

The JSON document that describes the policy. **policyDocument** must have a minimum length of 1, with a maximum length of 2048, excluding whitespace.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

Required: Yes

**tags**

Metadata which can be used to manage the policy.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: &&tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "policyArn": "string",
   "policyDocument": "string",
   "policyName": "string",
   "policyVersionId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**policyArn**

The policy ARN.

Type: String

**policyDocument**

The JSON document that describes the policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

**policyName**

The policy name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

**policyVersionId**

The policy version ID.

Type: String

Pattern: `[0-9]+`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MalformedPolicyException**

The policy documentation is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreatePolicyVersion

Service: AWS IoT

Creates a new version of the specified AWS IoT policy. To update a policy, create a new policy version. A managed policy can have up to five versions. If the policy has five versions, you must use DeletePolicyVersion to delete an existing version before you create a new one.

Optionally, you can set the new version as the policy's default version. The default version is the operative version (that is, the version that is in effect for the certificates to which the policy is attached).

Requires permission to access the CreatePolicyVersion action.

## Request Syntax

```
POST /policies/policyName/version?setAsDefault=setAsDefault HTTP/1.1
Content-type: application/json

{
   "policyDocument": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

### setAsDefault

Specifies whether the policy version is set as the default. When this parameter is true, the new policy version becomes the operative version (that is, the version that is in effect for the certificates to which the policy is attached).

## Request Body

The request accepts the following data in JSON format.

**policyDocument**

The JSON document that describes the policy. Minimum length of 1. Maximum length of 2048, excluding whitespace.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "isDefaultVersion": boolean,
   "policyArn": "string",
   "policyDocument": "string",
   "policyVersionId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**isDefaultVersion**

Specifies whether the policy version is the default.

Type: Boolean

**policyArn**

The policy ARN.

Type: String

**policyDocument**

The JSON document that describes the policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

**policyVersionId**

The policy version ID.

Type: String

Pattern: `[0-9]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MalformedPolicyException**

The policy documentation is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionsLimitExceededException**

The number of policy versions exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateProvisioningClaim

Service: AWS IoT

Creates a provisioning claim.

Requires permission to access the CreateProvisioningClaim action.

## Request Syntax

```
POST /provisioning-templates/templateName/provisioning-claim HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### templateName

The name of the provisioning template to use.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9A-Za-z_-]+$

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateId": "string",
   "certificatePem": "string",
   "expiration": number,
   "keyPair": {
      "PrivateKey": "string",
      "PublicKey": "string"
   }
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateId**

The ID of the certificate.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

**certificatePem**

The provisioning claim certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

**expiration**

The provisioning claim expiration time.

Type: Timestamp

**keyPair**

The provisioning claim key pair.

Type: KeyPair object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateProvisioningTemplate

Service: AWS IoT

Creates a provisioning template.

Requires permission to access the CreateProvisioningTemplate action.

## Request Syntax

```
POST /provisioning-templates HTTP/1.1
Content-type: application/json

{
   "description": "string",
   "enabled": boolean,
   "preProvisioningHook": {
      "payloadVersion": "string",
      "targetArn": "string"
   },
   "provisioningRoleArn": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "templateBody": "string",
   "templateName": "string",
   "type": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### description

The description of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[^\p{C}]*`

Required: No

**enabled**

True to enable the provisioning template, otherwise false.

Type: Boolean

Required: No

**preProvisioningHook**

Creates a pre-provisioning hook template. Only supports template of type `FLEET_PROVISIONING`. For more information about provisioning template types, see type.

Type: ProvisioningHook object

Required: No

**provisioningRoleArn**

The role ARN for the role associated with the provisioning template. This IoT role grants permission to provision a device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**tags**

Metadata which can be used to manage the provisioning template.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: &&tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

Type: Array of Tag objects

Required: No

**templateBody**

The JSON formatted contents of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

Required: Yes

**templateName**

The name of the provisioning template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

**type**

The type you define in a provisioning template. You can create a template with only one type. You can't change the template type after its creation. The default value is `FLEET_PROVISIONING`. For more information about provisioning template, see: Provisioning template.

Type: String

Valid Values: `FLEET_PROVISIONING | JITP`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "defaultVersionId": number,
   "templateArn": "string",
   "templateName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**defaultVersionId**

The default version of the provisioning template.

Type: Integer

**templateArn**

The ARN that identifies the provisioning template.

Type: String

**templateName**

The name of the provisioning template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateProvisioningTemplateVersion

Service: AWS IoT

Creates a new version of a provisioning template.

Requires permission to access the CreateProvisioningTemplateVersion action.

## Request Syntax

```
POST /provisioning-templates/templateName/versions?setAsDefault=setAsDefault HTTP/1.1
Content-type: application/json

{
   "templateBody": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

**setAsDefault**

Sets a fleet provision template version as the default version.

**templateName**

The name of the provisioning template.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**templateBody**

The JSON formatted contents of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "isDefaultVersion": boolean,
   "templateArn": "string",
   "templateName": "string",
   "versionId": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**isDefaultVersion**

True if the provisioning template version is the default version, otherwise false.

Type: Boolean

**templateArn**

The ARN that identifies the provisioning template.

Type: String

**templateName**

The name of the provisioning template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

**versionId**

The version of the provisioning template.

Type: Integer

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionsLimitExceededException**

The number of policy versions exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateRoleAlias

Service: AWS IoT

Creates a role alias.

Requires permission to access the CreateRoleAlias action.

> **Important**
>
> The value of `credentialDurationSeconds` must be less than or equal to the maximum session duration of the IAM role that the role alias references. For more information, see Modifying a role maximum session duration (AWS API) from the AWS Identity and Access Management User Guide.

## Request Syntax

```
POST /role-aliases/roleAlias HTTP/1.1
Content-type: application/json

{
   "credentialDurationSeconds": number,
   "roleArn": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### roleAlias

The role alias that points to a role ARN. This allows you to change the role without having to update the device.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**credentialDurationSeconds**

How long (in seconds) the credentials will be valid. The default value is 3,600 seconds.

This value must be less than or equal to the maximum session duration of the IAM role that the role alias references.

Type: Integer

Valid Range: Minimum value of 900. Maximum value of 43200.

Required: No

**roleArn**

The role ARN.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**tags**

Metadata which can be used to manage the role alias.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: &&tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "roleAlias": "string",
   "roleAliasArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**roleAlias**

The role alias.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

**roleAliasArn**

The role alias ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateScheduledAudit

Service: AWS IoT

Creates a scheduled audit that is run at a specified time interval.

Requires permission to access the CreateScheduledAudit action.

## Request Syntax

```
POST /audit/scheduledaudits/scheduledAuditName HTTP/1.1
Content-type: application/json

{
   "dayOfMonth": "string",
   "dayOfWeek": "string",
   "frequency": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "targetCheckNames": [ "string" ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### scheduledAuditName

The name you want to give to the scheduled audit. (Max. 128 chars)

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**dayOfMonth**

The day of the month on which the scheduled audit takes place. This can be "1" through "31" or "LAST". This field is required if the "frequency" parameter is set to `MONTHLY`. If days 29 to 31 are specified, and the month doesn't have that many days, the audit takes place on the `LAST` day of the month.

Type: String

Pattern: `^([1-9]|[12][0-9]|3[01])$|^LAST$`

Required: No

**dayOfWeek**

The day of the week on which the scheduled audit takes place, either `SUN`, `MON`, `TUE`, `WED`, `THU`, `FRI`, or `SAT`. This field is required if the `frequency` parameter is set to `WEEKLY` or `BIWEEKLY`.

Type: String

Valid Values: `SUN | MON | TUE | WED | THU | FRI | SAT`

Required: No

**frequency**

How often the scheduled audit takes place, either `DAILY`, `WEEKLY`, `BIWEEKLY` or `MONTHLY`. The start time of each audit is determined by the system.

Type: String

Valid Values: `DAILY | WEEKLY | BIWEEKLY | MONTHLY`

Required: Yes

**tags**

Metadata that can be used to manage the scheduled audit.

Type: Array of Tag objects

Required: No

**targetCheckNames**

Which checks are performed during the scheduled audit. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including

those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: Array of strings

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "scheduledAuditArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**scheduledAuditArn**

The ARN of the scheduled audit.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Creates a Device Defender security profile.

Requires permission to access the CreateSecurityProfile action.

## Request Syntax

```
POST /security-profiles/securityProfileName HTTP/1.1
Content-type: application/json

{
   "additionalMetricsToRetain": [ "string" ],
   "additionalMetricsToRetainV2": [
      {
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         }
      }
   ],
   "alertTargets": {
      "string" : {
         "alertTargetArn": "string",
         "roleArn": "string"
      }
   },
   "behaviors": [
      {
         "criteria": {
```

```
            "comparisonOperator": "string",
            "consecutiveDatapointsToAlarm": number,
            "consecutiveDatapointsToClear": number,
            "durationSeconds": number,
            "mlDetectionConfig": {
               "confidenceLevel": "string"
            },
            "statisticalThreshold": {
               "statistic": "string"
            },
            "value": {
               "cidrs": [ "string" ],
               "count": number,
               "number": number,
               "numbers": [ number ],
               "ports": [ number ],
               "strings": [ "string" ]
            }
         },
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         },
         "name": "string",
         "suppressAlerts": boolean
      }
   ],
   "metricsExportConfig": {
      "mqttTopic": "string",
      "roleArn": "string"
   },
   "securityProfileDescription": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

**securityProfileName**

The name you are giving to the security profile.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**additionalMetricsToRetain**

*This parameter has been deprecated.*

*Please use CreateSecurityProfile:additionalMetricsToRetainV2 instead.*

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's `behaviors`, but it is also retained for any metric specified here. Can be used with custom metrics; cannot be used with dimensions.

Type: Array of strings

Required: No

**additionalMetricsToRetainV2**

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's `behaviors`, but it is also retained for any metric specified here. Can be used with custom metrics; cannot be used with dimensions.

Type: Array of MetricToRetain objects

Required: No

**alertTargets**

Specifies the destinations to which alerts are sent. (Alerts are always sent to the console.) Alerts are generated when a device (thing) violates a behavior.

Type: String to AlertTarget object map

Valid Keys: SNS

Required: No

**behaviors**

Specifies the behaviors that, when violated by a device (thing), cause an alert.

Type: Array of Behavior objects

Array Members: Maximum number of 100 items.

Required: No

**metricsExportConfig**

Specifies the MQTT topic and role ARN required for metric export.

Type: MetricsExportConfig object

Required: No

**securityProfileDescription**

A description of the security profile.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

Required: No

**tags**

Metadata that can be used to manage the security profile.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "securityProfileArn": "string",
   "securityProfileName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**securityProfileArn**

The ARN of the security profile.

Type: String

**securityProfileName**

The name you gave to the security profile.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateStream

Service: AWS IoT

Creates a stream for delivering one or more large files in chunks over MQTT. A stream transports data bytes in chunks or blocks packaged as MQTT messages from a source like S3. You can have one or more files associated with a stream.

Requires permission to access the CreateStream action.

## Request Syntax

```
POST /streams/streamId HTTP/1.1
Content-type: application/json

{
   "description": "string",
   "files": [
      {
         "fileId": number,
         "s3Location": {
            "bucket": "string",
            "key": "string",
            "version": "string"
         }
      }
   ],
   "roleArn": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### streamId

The stream ID.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**description**

A description of the stream.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**files**

The files to stream.

Type: Array of StreamFile objects

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: Yes

**roleArn**

An IAM role that allows the IoT service principal to access your S3 files.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**tags**

Metadata which can be used to manage streams.

Type: Array of Tag objects

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "description": "string",
   "streamArn": "string",
   "streamId": "string",
   "streamVersion": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**description**

A description of the stream.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

**streamArn**

The stream ARN.

Type: String

**streamId**

The stream ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**streamVersion**

The version of the stream.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateThing

Service: AWS IoT

Creates a thing record in the registry. If this call is made multiple times using the same thing name and configuration, the call will succeed. If this call is made with the same thing name but different configuration a `ResourceAlreadyExistsException` is thrown.

> **Note**
>
> This is a control plane operation. See Authorization for information about authorizing control plane actions.

Requires permission to access the CreateThing action.

## Request Syntax

```
POST /things/thingName HTTP/1.1
Content-type: application/json

{
   "attributePayload": {
      "attributes": {
         "string" : "string"
      },
      "merge": boolean
   },
   "billingGroupName": "string",
   "thingTypeName": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The name of the thing to create.

You can't change a thing's name after you create it. To change a thing's name, you must create a new thing, give it the new name, and then delete the old thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**attributePayload**

The attribute payload, which consists of up to three name/value pairs in a JSON document. For example:

`{\"attributes\":{\"string1\":\"string2\"}}`

Type: AttributePayload object

Required: No

**billingGroupName**

The name of the billing group the thing will be added to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingTypeName**

The name of the thing type associated with the new thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "thingArn": "string",
   "thingId": "string",
   "thingName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**thingArn**

The ARN of the new thing.

Type: String

**thingId**

The thing ID.

Type: String

**thingName**

The name of the new thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateThingGroup

Service: AWS IoT

Create a thing group.

> **Note**
>
> This is a control plane operation. See Authorization for information about authorizing control plane actions.
> If the `ThingGroup` that you create has the exact same attributes as an existing `ThingGroup`, you will get a 200 success response.

Requires permission to access the CreateThingGroup action.

## Request Syntax

```
POST /thing-groups/thingGroupName HTTP/1.1
Content-type: application/json

{
   "parentGroupName": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "thingGroupProperties": {
      "attributePayload": {
         "attributes": {
            "string" : "string"
         },
         "merge": boolean
      },
      "thingGroupDescription": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**thingGroupName**

The thing group name to create.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**parentGroupName**

The name of the parent thing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**tags**

Metadata which can be used to manage the thing group.

Type: Array of Tag objects

Required: No

**thingGroupProperties**

The thing group properties.

Type: ThingGroupProperties object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "thingGroupArn": "string",
   "thingGroupId": "string",
   "thingGroupName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**thingGroupArn**

The thing group ARN.

Type: String

**thingGroupId**

The thing group ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

**thingGroupName**

The thing group name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateThingType

Service: AWS IoT

Creates a new thing type. If this call is made multiple times using the same thing type name and configuration, the call will succeed. If this call is made with the same thing type name but different configuration a `ResourceAlreadyExistsException` is thrown.

Requires permission to access the CreateThingType action.

## Request Syntax

```
POST /thing-types/thingTypeName HTTP/1.1
Content-type: application/json

{
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "thingTypeProperties": {
      "mqtt5Configuration": {
         "propagatingAttributes": [
            {
               "connectionAttribute": "string",
               "thingAttribute": "string",
               "userPropertyKey": "string"
            }
         ]
      },
      "searchableAttributes": [ "string" ],
      "thingTypeDescription": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingTypeName

The name of the thing type.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**tags**

Metadata which can be used to manage the thing type.

Type: Array of Tag objects

Required: No

**thingTypeProperties**

The ThingTypeProperties for the thing type to create. It contains information about the new thing type including a description, and a list of searchable thing attribute names.

Type: ThingTypeProperties object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "thingTypeArn": "string",
   "thingTypeId": "string",
   "thingTypeName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**thingTypeArn**

The Amazon Resource Name (ARN) of the thing type.

Type: String

**thingTypeId**

The thing type ID.

Type: String

**thingTypeName**

The name of the thing type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateTopicRule

Service: AWS IoT

Creates a rule. Creating rules is an administrator-level action. Any user who has permission to create rules will be able to access data processed by the rule.

Requires permission to access the CreateTopicRule action.

## Request Syntax

```
POST /rules/ruleName HTTP/1.1
x-amz-tagging: tags
Content-type: application/json

{
   "actions": [
      {
         "cloudwatchAlarm": {
            "alarmName": "string",
            "roleArn": "string",
            "stateReason": "string",
            "stateValue": "string"
         },
         "cloudwatchLogs": {
            "batchMode": boolean,
            "logGroupName": "string",
            "roleArn": "string"
         },
         "cloudwatchMetric": {
            "metricName": "string",
            "metricNamespace": "string",
            "metricTimestamp": "string",
            "metricUnit": "string",
            "metricValue": "string",
            "roleArn": "string"
         },
         "dynamoDB": {
            "hashKeyField": "string",
            "hashKeyType": "string",
            "hashKeyValue": "string",
            "operation": "string",
            "payloadField": "string",
            "rangeKeyField": "string",
```

```
            "rangeKeyType": "string",
            "rangeKeyValue": "string",
            "roleArn": "string",
            "tableName": "string"
         },
         "dynamoDBv2": {
            "putItem": {
               "tableName": "string"
            },
            "roleArn": "string"
         },
         "elasticsearch": {
            "endpoint": "string",
            "id": "string",
            "index": "string",
            "roleArn": "string",
            "type": "string"
         },
         "firehose": {
            "batchMode": boolean,
            "deliveryStreamName": "string",
            "roleArn": "string",
            "separator": "string"
         },
         "http": {
            "auth": {
               "sigv4": {
                  "roleArn": "string",
                  "serviceName": "string",
                  "signingRegion": "string"
               }
            },
            "batchConfig": {
               "batchAcrossTopics": boolean,
               "maxBatchOpenMs": number,
               "maxBatchSize": number,
               "maxBatchSizeBytes": number
            },
            "confirmationUrl": "string",
            "enableBatching": boolean,
            "headers": [
               {
                  "key": "string",
                  "value": "string"
```

```
            }
         ],
         "url": "string"
      },
      "iotAnalytics": {
         "batchMode": boolean,
         "channelArn": "string",
         "channelName": "string",
         "roleArn": "string"
      },
      "iotEvents": {
         "batchMode": boolean,
         "inputName": "string",
         "messageId": "string",
         "roleArn": "string"
      },
      "iotSiteWise": {
         "putAssetPropertyValueEntries": [
            {
               "assetId": "string",
               "entryId": "string",
               "propertyAlias": "string",
               "propertyId": "string",
               "propertyValues": [
                  {
                     "quality": "string",
                     "timestamp": {
                        "offsetInNanos": "string",
                        "timeInSeconds": "string"
                     },
                     "value": {
                        "booleanValue": "string",
                        "doubleValue": "string",
                        "integerValue": "string",
                        "stringValue": "string"
                     }
                  }
               ]
            }
         ],
         "roleArn": "string"
      },
      "kafka": {
         "clientProperties": {
```

```
            "string" : "string"
         },
         "destinationArn": "string",
         "headers": [
            {
               "key": "string",
               "value": "string"
            }
         ],
         "key": "string",
         "partition": "string",
         "topic": "string"
      },
      "kinesis": {
         "partitionKey": "string",
         "roleArn": "string",
         "streamName": "string"
      },
      "lambda": {
         "functionArn": "string"
      },
      "location": {
         "deviceId": "string",
         "latitude": "string",
         "longitude": "string",
         "roleArn": "string",
         "timestamp": {
            "unit": "string",
            "value": "string"
         },
         "trackerName": "string"
      },
      "openSearch": {
         "endpoint": "string",
         "id": "string",
         "index": "string",
         "roleArn": "string",
         "type": "string"
      },
      "republish": {
         "headers": {
            "contentType": "string",
            "correlationData": "string",
            "messageExpiry": "string",
```

```
            "payloadFormatIndicator": "string",
            "responseTopic": "string",
            "userProperties": [
               {
                  "key": "string",
                  "value": "string"
               }
            ]
         },
         "qos": number,
         "roleArn": "string",
         "topic": "string"
      },
      "s3": {
         "bucketName": "string",
         "cannedAcl": "string",
         "key": "string",
         "roleArn": "string"
      },
      "salesforce": {
         "token": "string",
         "url": "string"
      },
      "sns": {
         "messageFormat": "string",
         "roleArn": "string",
         "targetArn": "string"
      },
      "sqs": {
         "queueUrl": "string",
         "roleArn": "string",
         "useBase64": boolean
      },
      "stepFunctions": {
         "executionNamePrefix": "string",
         "roleArn": "string",
         "stateMachineName": "string"
      },
      "timestream": {
         "databaseName": "string",
         "dimensions": [
            {
               "name": "string",
               "value": "string"
```

```
            }
         ],
         "roleArn": "string",
         "tableName": "string",
         "timestamp": {
            "unit": "string",
            "value": "string"
         }
      }
   }
],
"awsIotSqlVersion": "string",
"description": "string",
"errorAction": {
   "cloudwatchAlarm": {
      "alarmName": "string",
      "roleArn": "string",
      "stateReason": "string",
      "stateValue": "string"
   },
   "cloudwatchLogs": {
      "batchMode": boolean,
      "logGroupName": "string",
      "roleArn": "string"
   },
   "cloudwatchMetric": {
      "metricName": "string",
      "metricNamespace": "string",
      "metricTimestamp": "string",
      "metricUnit": "string",
      "metricValue": "string",
      "roleArn": "string"
   },
   "dynamoDB": {
      "hashKeyField": "string",
      "hashKeyType": "string",
      "hashKeyValue": "string",
      "operation": "string",
      "payloadField": "string",
      "rangeKeyField": "string",
      "rangeKeyType": "string",
      "rangeKeyValue": "string",
      "roleArn": "string",
      "tableName": "string"
```

```
      },
      "dynamoDBv2": {
         "putItem": {
            "tableName": "string"
         },
         "roleArn": "string"
      },
      "elasticsearch": {
         "endpoint": "string",
         "id": "string",
         "index": "string",
         "roleArn": "string",
         "type": "string"
      },
      "firehose": {
         "batchMode": boolean,
         "deliveryStreamName": "string",
         "roleArn": "string",
         "separator": "string"
      },
      "http": {
         "auth": {
            "sigv4": {
               "roleArn": "string",
               "serviceName": "string",
               "signingRegion": "string"
            }
         },
         "batchConfig": {
            "batchAcrossTopics": boolean,
            "maxBatchOpenMs": number,
            "maxBatchSize": number,
            "maxBatchSizeBytes": number
         },
         "confirmationUrl": "string",
         "enableBatching": boolean,
         "headers": [
            {
               "key": "string",
               "value": "string"
            }
         ],
         "url": "string"
      },
```

```
      "iotAnalytics": {
         "batchMode": boolean,
         "channelArn": "string",
         "channelName": "string",
         "roleArn": "string"
      },
      "iotEvents": {
         "batchMode": boolean,
         "inputName": "string",
         "messageId": "string",
         "roleArn": "string"
      },
      "iotSiteWise": {
         "putAssetPropertyValueEntries": [
            {
               "assetId": "string",
               "entryId": "string",
               "propertyAlias": "string",
               "propertyId": "string",
               "propertyValues": [
                  {
                     "quality": "string",
                     "timestamp": {
                        "offsetInNanos": "string",
                        "timeInSeconds": "string"
                     },
                     "value": {
                        "booleanValue": "string",
                        "doubleValue": "string",
                        "integerValue": "string",
                        "stringValue": "string"
                     }
                  }
               ]
            }
         ],
         "roleArn": "string"
      },
      "kafka": {
         "clientProperties": {
            "string" : "string"
         },
         "destinationArn": "string",
         "headers": [
```

```
            {
               "key": "string",
               "value": "string"
            }
         ],
         "key": "string",
         "partition": "string",
         "topic": "string"
      },
      "kinesis": {
         "partitionKey": "string",
         "roleArn": "string",
         "streamName": "string"
      },
      "lambda": {
         "functionArn": "string"
      },
      "location": {
         "deviceId": "string",
         "latitude": "string",
         "longitude": "string",
         "roleArn": "string",
         "timestamp": {
            "unit": "string",
            "value": "string"
         },
         "trackerName": "string"
      },
      "openSearch": {
         "endpoint": "string",
         "id": "string",
         "index": "string",
         "roleArn": "string",
         "type": "string"
      },
      "republish": {
         "headers": {
            "contentType": "string",
            "correlationData": "string",
            "messageExpiry": "string",
            "payloadFormatIndicator": "string",
            "responseTopic": "string",
            "userProperties": [
               {
```

```
                "key": "string",
                "value": "string"
            }
        ]
    },
    "qos": number,
    "roleArn": "string",
    "topic": "string"
},
"s3": {
    "bucketName": "string",
    "cannedAcl": "string",
    "key": "string",
    "roleArn": "string"
},
"salesforce": {
    "token": "string",
    "url": "string"
},
"sns": {
    "messageFormat": "string",
    "roleArn": "string",
    "targetArn": "string"
},
"sqs": {
    "queueUrl": "string",
    "roleArn": "string",
    "useBase64": boolean
},
"stepFunctions": {
    "executionNamePrefix": "string",
    "roleArn": "string",
    "stateMachineName": "string"
},
"timestream": {
    "databaseName": "string",
    "dimensions": [
        {
            "name": "string",
            "value": "string"
        }
    ],
    "roleArn": "string",
    "tableName": "string",
```

```
            "timestamp": {
               "unit": "string",
               "value": "string"
            }
         }
      },
      "ruleDisabled": boolean,
      "sql": "string"
   }
```

## URI Request Parameters

The request uses the following URI parameters.

### ruleName

The name of the rule.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

### tags

Metadata which can be used to manage the topic rule.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: --tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

## Request Body

The request accepts the following data in JSON format.

### actions

The actions associated with the rule.

Type: Array of Action objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

**awsIotSqlVersion**

The version of the SQL rules engine to use when evaluating the rule.

Type: String

Required: No

**description**

The description of the rule.

Type: String

Required: No

**errorAction**

The action to take when an error occurs.

Type: Action object

Required: No

**ruleDisabled**

Specifies whether the rule is disabled.

Type: Boolean

Required: No

**sql**

The SQL statement used to query the topic. For more information, see AWS IoT SQL Reference in the *AWS IoT Developer Guide*.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**SqlParseException**

The Rule-SQL expression can't be parsed correctly.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# CreateTopicRuleDestination

Service: AWS IoT

Creates a topic rule destination. The destination must be confirmed prior to use.

Requires permission to access the CreateTopicRuleDestination action.

## Request Syntax

```
POST /destinations HTTP/1.1
Content-type: application/json

{
   "destinationConfiguration": {
      "httpUrlConfiguration": {
         "confirmationUrl": "string"
      },
      "vpcConfiguration": {
         "roleArn": "string",
         "securityGroups": [ "string" ],
         "subnetIds": [ "string" ],
         "vpcId": "string"
      }
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### destinationConfiguration

The topic rule destination configuration.

Type: TopicRuleDestinationConfiguration object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "topicRuleDestination": {
      "arn": "string",
      "createdAt": number,
      "httpUrlProperties": {
         "confirmationUrl": "string"
      },
      "lastUpdatedAt": number,
      "status": "string",
      "statusReason": "string",
      "vpcProperties": {
         "roleArn": "string",
         "securityGroups": [ "string" ],
         "subnetIds": [ "string" ],
         "vpcId": "string"
      }
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### topicRuleDestination

The topic rule destination.

Type: TopicRuleDestination object

## Errors

### ConflictingResourceUpdateException

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteAccountAuditConfiguration

Service: AWS IoT

Restores the default settings for Device Defender audits for this account. Any configuration data you entered is deleted and all audit checks are reset to disabled.

Requires permission to access the DeleteAccountAuditConfiguration action.

## Request Syntax

```
DELETE /audit/configuration?deleteScheduledAudits=deleteScheduledAudits HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### deleteScheduledAudits

If true, all scheduled audits are deleted.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteAuditSuppression

Service: AWS IoT

Deletes a Device Defender audit suppression.

Requires permission to access the DeleteAuditSuppression action.

## Request Syntax

```
POST /audit/suppressions/delete HTTP/1.1
Content-type: application/json

{
   "checkName": "string",
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
      },
      "roleAliasArn": "string"
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

Required: Yes

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteAuthorizer

Service: AWS IoT

Deletes an authorizer.

Requires permission to access the DeleteAuthorizer action.

## Request Syntax

```
DELETE /authorizer/authorizerName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### authorizerName

The name of the authorizer to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### DeleteConflictException

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteBillingGroup

Service: AWS IoT

Deletes the billing group.

Requires permission to access the DeleteBillingGroup action.

## Request Syntax

```
DELETE /billing-groups/billingGroupName?expectedVersion=expectedVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### billingGroupName

The name of the billing group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

### expectedVersion

The expected version of the billing group. If the version of the billing group does not match the expected version specified in the request, the `DeleteBillingGroup` request is rejected with a `VersionConflictException`.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteCACertificate

Service: AWS IoT

Deletes a registered CA certificate.

Requires permission to access the DeleteCACertificate action.

## Request Syntax

```
DELETE /cacertificate/caCertificateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### caCertificateId

The ID of the certificate to delete. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**CertificateStateException**

The certificate operation is not allowed.

**message**

The message for the exception.

HTTP Status Code: 406

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteCertificate

Service: AWS IoT

Deletes the specified certificate.

A certificate cannot be deleted if it has a policy or IoT thing attached to it or if its status is set to ACTIVE. To delete a certificate, first use the DetachPolicy action to detach all policies. Next, use the UpdateCertificate action to set the certificate to the INACTIVE status.

Requires permission to access the DeleteCertificate action.

## Request Syntax

```
DELETE /certificates/certificateId?forceDelete=forceDelete HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**certificateId**

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

**forceDelete**

Forces the deletion of a certificate if it is inactive and is not attached to an IoT thing.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**CertificateStateException**

The certificate operation is not allowed.

**message**

The message for the exception.

HTTP Status Code: 406

**DeleteConflictException**

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteCertificateProvider

Service: AWS IoT

Deletes a certificate provider.

Requires permission to access the DeleteCertificateProvider action.

If you delete the certificate provider resource, the behavior of `CreateCertificateFromCsr` will resume, and AWS IoT will create certificates signed by AWS IoT from a certificate signing request (CSR).

## Request Syntax

```
DELETE /certificate-providers/certificateProviderName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**certificateProviderName**

The name of the certificate provider.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**DeleteConflictException**

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteCommand

Service: AWS IoT

Delete a command resource.

## Request Syntax

```
DELETE /commands/commandId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### commandId

The unique identifier of the command to be deleted.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 statusCode
```

## Response Elements

If the action is successful, the service sends back the following HTTP response.

### statusCode

The status code for the command deletion request. The status code is in the 200 range for a successful request.

- If the command hasn't been deprecated, or has been deprecated for a duration that is shorter than the maximum time out duration of 12 hours, when calling the `DeleteCommand` request, the deletion will be scheduled and a 202 status code will be returned. While the command is being deleted, it will be in a `pendingDeletion` state. Once the time out duration has been reached, the command will be permanently removed from your account.
- If the command has been deprecated for a duration that is longer than the maximum time out duration of 12 hours, when calling the `DeleteCommand` request, the command will be deleted immediately and a 204 status code will be returned.

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteCommandExecution

Service: AWS IoT

Delete a command execution.

> **Note**
>
> Only command executions that enter a terminal state can be deleted from your account.

## Request Syntax

```
DELETE /command-executions/executionId?targetArn=targetArn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**executionId**

The unique identifier of the command execution that you want to delete from your account.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**targetArn**

The Amazon Resource Number (ARN) of the target device for which you want to delete command executions.

Length Constraints: Maximum length of 2048.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteCustomMetric

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Deletes a Device Defender detect custom metric.

Requires permission to access the DeleteCustomMetric action.

> **Note**
>
> Before you can delete a custom metric, you must first remove the custom metric from all security profiles it's a part of. The security profile associated with the custom metric can be found using the ListSecurityProfiles API with `metricName` set to your custom metric name.

## Request Syntax

```
DELETE /custom-metric/metricName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**metricName**

The name of the custom metric.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteDimension

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Removes the specified dimension from your AWS accounts.

Requires permission to access the DeleteDimension action.

## Request Syntax

```
DELETE /dimensions/name HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**name**

The unique identifier for the dimension that you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteDomainConfiguration

Service: AWS IoT

Deletes the specified domain configuration.

Requires permission to access the DeleteDomainConfiguration action.

## Request Syntax

```
DELETE /domainConfigurations/domainConfigurationName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### domainConfigurationName

The name of the domain configuration to be deleted.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteDynamicThingGroup

Service: AWS IoT

Deletes a dynamic thing group.

Requires permission to access the DeleteDynamicThingGroup action.

## Request Syntax

```
DELETE /dynamic-thing-groups/thingGroupName?expectedVersion=expectedVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**expectedVersion**

The expected version of the dynamic thing group to delete.

**thingGroupName**

The name of the dynamic thing group to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteFleetMetric

Service: AWS IoT

Deletes the specified fleet metric. Returns successfully with no error if the deletion is successful or you specify a fleet metric that doesn't exist.

Requires permission to access the DeleteFleetMetric action.

## Request Syntax

```
DELETE /fleet-metric/metricName?expectedVersion=expectedVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**expectedVersion**

The expected version of the fleet metric to delete.

**metricName**

The name of the fleet metric to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteJob

Service: AWS IoT

Deletes a job and its related job executions.

Deleting a job may take time, depending on the number of job executions created for the job and various other factors. While the job is being deleted, the status of the job will be shown as "DELETION_IN_PROGRESS". Attempting to delete or cancel a job whose status is already "DELETION_IN_PROGRESS" will result in an error.

Only 10 jobs may have status "DELETION_IN_PROGRESS" at the same time, or a LimitExceededException will occur.

Requires permission to access the DeleteJob action.

## Request Syntax

```
DELETE /jobs/jobId?force=force&namespaceId=namespaceId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### force

(Optional) When true, you can delete a job which is "IN_PROGRESS". Otherwise, you can only delete a job which is in a terminal state ("COMPLETED" or "CANCELED") or an exception will occur. The default is false.

> **Note**
>
> Deleting a job which is "IN_PROGRESS", will cause a device which is executing the job to be unable to access job information or update the job execution status. Use caution and ensure that each device executing a job which is deleted is able to recover to a valid state.

### jobId

The ID of the job to be deleted.

After a job deletion is completed, you may reuse this jobId when you create a new job. However, this is not recommended, and you must ensure that your devices are not using the jobId to refer to the deleted job.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**namespaceId**

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/`*`THING_NAME`*`/jobs/`*`JOB_ID`*`/notify-namespace-`*`NAMESPACE_ID`*`/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Pattern: `[a-zA-Z0-9_-]+`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidStateTransitionException**

An attempt was made to change to an invalid state, for example by deleting a job or a job execution which is "IN_PROGRESS" without setting the `force` parameter.

**message**

The message for the exception.

HTTP Status Code: 409

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteJobExecution

Service: AWS IoT

Deletes a job execution.

Requires permission to access the DeleteJobExecution action.

## Request Syntax

```
DELETE /things/thingName/jobs/jobId/executionNumber/executionNumber?
force=force&namespaceId=namespaceId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### executionNumber

The ID of the job execution to be deleted. The `executionNumber` refers to the execution of a particular job on a particular device.

Note that once a job execution is deleted, the `executionNumber` may be reused by IoT, so be sure you get and use the correct value here.

Required: Yes

### force

(Optional) When true, you can delete a job execution which is "IN_PROGRESS". Otherwise, you can only delete a job execution which is in a terminal state ("SUCCEEDED", "FAILED", "REJECTED", "REMOVED" or "CANCELED") or an exception will occur. The default is false.

> **Note**
>
> Deleting a job execution which is "IN_PROGRESS", will cause the device to be unable to access job information or update the job execution status. Use caution and ensure that the device is able to recover to a valid state.

### jobId

The ID of the job whose execution on a particular device will be deleted.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**namespaceId**

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/`*`THING_NAME`*`/jobs/`*`JOB_ID`*`/notify-namespace-`*`NAMESPACE_ID`*`/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Pattern: `[a-zA-Z0-9_-]+`

**thingName**

The name of the thing whose job execution will be deleted.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidStateTransitionException**

An attempt was made to change to an invalid state, for example by deleting a job or a job execution which is "IN_PROGRESS" without setting the `force` parameter.

**message**

The message for the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteJobTemplate

Service: AWS IoT

Deletes the specified job template.

## Request Syntax

```
DELETE /job-templates/jobTemplateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### jobTemplateId

The unique identifier of the job template to delete.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteMitigationAction

Service: AWS IoT

Deletes a defined mitigation action from your AWS accounts.

Requires permission to access the DeleteMitigationAction action.

## Request Syntax

```
DELETE /mitigationactions/actions/actionName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### actionName

The name of the mitigation action that you want to delete.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteOTAUpdate

Service: AWS IoT

Delete an OTA update.

Requires permission to access the DeleteOTAUpdate action.

## Request Syntax

```
DELETE /otaUpdates/otaUpdateId?
deleteStream=deleteStream&forceDeleteAWSJob=forceDeleteAWSJob HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**deleteStream**

When true, the stream created by the OTAUpdate process is deleted when the OTA update is deleted. Ignored if the stream specified in the OTAUpdate is supplied by the user.

**forceDeleteAWSJob**

When true, deletes the AWS IoT job created by the OTAUpdate process even if it is "IN_PROGRESS". Otherwise, if the job is not in a terminal state ("COMPLETED" or "CANCELED") an exception will occur. The default is false.

**otaUpdateId**

The ID of the OTA update to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeletePackage

Service: AWS IoT

Deletes a specific version from a software package.

**Note:** All package versions must be deleted before deleting the software package.

Requires permission to access the DeletePackageVersion action.

## Request Syntax

```
DELETE /packages/packageName?clientToken=clientToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

### packageName

The name of the target software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeletePackageVersion

Service: AWS IoT

Deletes a specific version from a software package.

**Note:** If a package version is designated as default, you must remove the designation from the software package using the UpdatePackage action.

## Request Syntax

```
DELETE /packages/packageName/versions/versionName?clientToken=clientToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**clientToken**

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

**packageName**

The name of the associated software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**versionName**

The name of the target package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeletePolicy

Service: AWS IoT

Deletes the specified policy.

A policy cannot be deleted if it has non-default versions or it is attached to any certificate.

To delete a policy, use the DeletePolicyVersion action to delete all non-default versions of the policy; use the DetachPolicy action to detach the policy from any certificate; and then use the DeletePolicy action to delete the policy.

When a policy is deleted using DeletePolicy, its default version is deleted with it.

> **Note**
>
> Because of the distributed nature of AWS, it can take up to five minutes after a policy is detached before it's ready to be deleted.

Requires permission to access the DeletePolicy action.

## Request Syntax

```
DELETE /policies/policyName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The name of the policy to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**DeleteConflictException**

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeletePolicyVersion

Service: AWS IoT

Deletes the specified version of the specified policy. You cannot delete the default version of a policy using this action. To delete the default version of a policy, use DeletePolicy. To find out which version of a policy is marked as the default version, use ListPolicyVersions.

Requires permission to access the DeletePolicyVersion action.

## Request Syntax

```
DELETE /policies/policyName/version/policyVersionId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**policyName**

The name of the policy.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

**policyVersionId**

The policy version ID.

Pattern: `[0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**DeleteConflictException**

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteProvisioningTemplate

Service: AWS IoT

Deletes a provisioning template.

Requires permission to access the DeleteProvisioningTemplate action.

## Request Syntax

```
DELETE /provisioning-templates/templateName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**templateName**

The name of the fleet provision template to delete.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**DeleteConflictException**

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteProvisioningTemplateVersion

Service: AWS IoT

Deletes a provisioning template version.

Requires permission to access the DeleteProvisioningTemplateVersion action.

## Request Syntax

```
DELETE /provisioning-templates/templateName/versions/versionId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**templateName**

The name of the provisioning template version to delete.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

**versionId**

The provisioning template version ID to delete.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**DeleteConflictException**

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteRegistrationCode

Service: AWS IoT

Deletes a CA certificate registration code.

Requires permission to access the DeleteRegistrationCode action.

## Request Syntax

```
DELETE /registrationcode HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteRoleAlias

Service: AWS IoT

Deletes a role alias

Requires permission to access the DeleteRoleAlias action.

## Request Syntax

```
DELETE /role-aliases/roleAlias HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### roleAlias

The role alias to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### DeleteConflictException

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteScheduledAudit

Service: AWS IoT

Deletes a scheduled audit.

Requires permission to access the DeleteScheduledAudit action.

## Request Syntax

```
DELETE /audit/scheduledaudits/scheduledAuditName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### scheduledAuditName

The name of the scheduled audit you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Deletes a Device Defender security profile.

Requires permission to access the DeleteSecurityProfile action.

## Request Syntax

```
DELETE /security-profiles/securityProfileName?expectedVersion=expectedVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### expectedVersion

The expected version of the security profile. A new version is generated whenever the security profile is updated. If you specify a value that is different from the actual version, a `VersionConflictException` is thrown.

### securityProfileName

The name of the security profile to be deleted.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteStream

Service: AWS IoT

Deletes a stream.

Requires permission to access the DeleteStream action.

## Request Syntax

```
DELETE /streams/streamId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### streamId

The stream ID.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### DeleteConflictException

You can't delete the resource because it is attached to one or more resources.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteThing

Service: AWS IoT

Deletes the specified thing. Returns successfully with no error if the deletion is successful or you specify a thing that doesn't exist.

Requires permission to access the DeleteThing action.

## Request Syntax

```
DELETE /things/thingName?expectedVersion=expectedVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**expectedVersion**

The expected version of the thing record in the registry. If the version of the record in the registry does not match the expected version specified in the request, the `DeleteThing` request is rejected with a `VersionConflictException`.

**thingName**

The name of the thing to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)

- AWS SDK for Ruby V3

# DeleteThingGroup

Service: AWS IoT

Deletes a thing group.

Requires permission to access the DeleteThingGroup action.

## Request Syntax

```
DELETE /thing-groups/thingGroupName?expectedVersion=expectedVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**expectedVersion**

The expected version of the thing group to delete.

**thingGroupName**

The name of the thing group to delete.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteThingType

Service: AWS IoT

Deletes the specified thing type. You cannot delete a thing type if it has things associated with it. To delete a thing type, first mark it as deprecated by calling DeprecateThingType, then remove any associated things by calling UpdateThing to change the thing type on any associated thing, and finally use DeleteThingType to delete the thing type.

Requires permission to access the DeleteThingType action.

## Request Syntax

```
DELETE /thing-types/thingTypeName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**thingTypeName**

The name of the thing type.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteTopicRule

Service: AWS IoT

Deletes the rule.

Requires permission to access the DeleteTopicRule action.

## Request Syntax

```
DELETE /rules/ruleName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ruleName**

The name of the rule.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteTopicRuleDestination

Service: AWS IoT

Deletes a topic rule destination.

Requires permission to access the DeleteTopicRuleDestination action.

## Request Syntax

```
DELETE /destinations/arn+ HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**arn**

The ARN of the topic rule destination to delete.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### ConflictingResourceUpdateException

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteV2LoggingLevel

Service: AWS IoT

Deletes a logging level.

Requires permission to access the DeleteV2LoggingLevel action.

## Request Syntax

```
DELETE /v2LoggingLevel?targetName=targetName&targetType=targetType HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**targetName**

The name of the resource for which you are configuring logging.

Required: Yes

**targetType**

The type of resource for which you are configuring logging. Must be `THING_Group`.

Valid Values: `DEFAULT | THING_GROUP | CLIENT_ID | SOURCE_IP | PRINCIPAL_ID`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeprecateThingType

Service: AWS IoT

Deprecates a thing type. You can not associate new things with deprecated thing type.

Requires permission to access the DeprecateThingType action.

## Request Syntax

```
POST /thing-types/thingTypeName/deprecate HTTP/1.1
Content-type: application/json

{
   "undoDeprecate": boolean
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingTypeName

The name of the thing type to deprecate.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### undoDeprecate

Whether to undeprecate a deprecated thing type. If **true**, the thing type will not be deprecated anymore and you can associate it with things.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeAccountAuditConfiguration

Service: AWS IoT

Gets information about the Device Defender audit settings for this account. Settings include how audit notifications are sent and which audit checks are enabled or disabled.

Requires permission to access the DescribeAccountAuditConfiguration action.

## Request Syntax

```
GET /audit/configuration HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "auditCheckConfigurations": {
      "string" : {
         "configuration": {
            "string" : "string"
         },
         "enabled": boolean
      }
   },
   "auditNotificationTargetConfigurations": {
      "string" : {
         "enabled": boolean,
         "roleArn": "string",
         "targetArn": "string"
      }
   },
   "roleArn": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**auditCheckConfigurations**

Which audit checks are enabled and disabled for this account.

Type: String to AuditCheckConfiguration object map

**auditNotificationTargetConfigurations**

Information about the targets to which audit notifications are sent for this account.

Type: String to AuditNotificationTarget object map

Valid Keys: SNS

**roleArn**

The ARN of the role that grants permission to AWS IoT to access information about your devices, policies, certificates, and other items as required when performing an audit.

On the first call to `UpdateAccountAuditConfiguration`, this parameter is required.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeAuditFinding

Service: AWS IoT

Gets information about a single audit finding. Properties include the reason for noncompliance, the severity of the issue, and the start time when the audit that returned the finding.

Requires permission to access the DescribeAuditFinding action.

## Request Syntax

```
GET /audit/findings/findingId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### findingId

A unique identifier for a single audit finding. You can use this identifier to apply mitigation actions to the finding.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "finding": {
      "checkName": "string",
      "findingId": "string",
      "findingTime": number,
      "isSuppressed": boolean,
```

```
      "nonCompliantResource": {
         "additionalInfo": {
            "string" : "string"
         },
         "resourceIdentifier": {
            "account": "string",
            "caCertificateId": "string",
            "clientId": "string",
            "cognitoIdentityPoolId": "string",
            "deviceCertificateArn": "string",
            "deviceCertificateId": "string",
            "iamRoleArn": "string",
            "issuerCertificateIdentifier": {
               "issuerCertificateSerialNumber": "string",
               "issuerCertificateSubject": "string",
               "issuerId": "string"
            },
            "policyVersionIdentifier": {
               "policyName": "string",
               "policyVersionId": "string"
            },
            "roleAliasArn": "string"
         },
         "resourceType": "string"
      },
      "reasonForNonCompliance": "string",
      "reasonForNonComplianceCode": "string",
      "relatedResources": [
         {
            "additionalInfo": {
               "string" : "string"
            },
            "resourceIdentifier": {
               "account": "string",
               "caCertificateId": "string",
               "clientId": "string",
               "cognitoIdentityPoolId": "string",
               "deviceCertificateArn": "string",
               "deviceCertificateId": "string",
               "iamRoleArn": "string",
               "issuerCertificateIdentifier": {
                  "issuerCertificateSerialNumber": "string",
                  "issuerCertificateSubject": "string",
                  "issuerId": "string"
```

```
                },
                "policyVersionIdentifier": {
                   "policyName": "string",
                   "policyVersionId": "string"
                },
                "roleAliasArn": "string"
             },
             "resourceType": "string"
          }
       ],
       "severity": "string",
       "taskId": "string",
       "taskStartTime": number
    }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**finding**

The findings (results) of the audit.

Type: AuditFinding object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeAuditMitigationActionsTask

Service: AWS IoT

Gets information about an audit mitigation task that is used to apply mitigation actions to a set of audit findings. Properties include the actions being applied, the audit checks to which they're being applied, the task status, and aggregated task statistics.

## Request Syntax

```
GET /audit/mitigationactions/tasks/taskId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The unique identifier for the audit mitigation task.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "actionsDefinition": [
      {
         "actionParams": {
            "addThingsToThingGroupParams": {
               "overrideDynamicGroups": boolean,
               "thingGroupNames": [ "string" ]
            },
```

```
            "enableIoTLoggingParams": {
               "logLevel": "string",
               "roleArnForLogging": "string"
            },
            "publishFindingToSnsParams": {
               "topicArn": "string"
            },
            "replaceDefaultPolicyVersionParams": {
               "templateName": "string"
            },
            "updateCACertificateParams": {
               "action": "string"
            },
            "updateDeviceCertificateParams": {
               "action": "string"
            }
         },
         "id": "string",
         "name": "string",
         "roleArn": "string"
      }
   ],
   "auditCheckToActionsMapping": {
      "string" : [ "string" ]
   },
   "endTime": number,
   "startTime": number,
   "target": {
      "auditCheckToReasonCodeFilter": {
         "string" : [ "string" ]
      },
      "auditTaskId": "string",
      "findingIds": [ "string" ]
   },
   "taskStatistics": {
      "string" : {
         "canceledFindingsCount": number,
         "failedFindingsCount": number,
         "skippedFindingsCount": number,
         "succeededFindingsCount": number,
         "totalFindingsCount": number
      }
   },
   "taskStatus": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**actionsDefinition**

Specifies the mitigation actions and their parameters that are applied as part of this task.

Type: Array of MitigationAction objects

**auditCheckToActionsMapping**

Specifies the mitigation actions that should be applied to specific audit checks.

Type: String to array of strings map

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**endTime**

The date and time when the task was completed or canceled.

Type: Timestamp

**startTime**

The date and time when the task was started.

Type: Timestamp

**target**

Identifies the findings to which the mitigation actions are applied. This can be by audit checks, by audit task, or a set of findings.

Type: AuditMitigationActionsTaskTarget object

**taskStatistics**

Aggregate counts of the results when the mitigation tasks were applied to the findings for this audit mitigation actions task.

Type: String to TaskStatisticsForAuditCheck object map

**taskStatus**

The current status of the task.

Type: String

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeAuditSuppression

Service: AWS IoT

Gets information about a Device Defender audit suppression.

## Request Syntax

```
POST /audit/suppressions/describe HTTP/1.1
Content-type: application/json

{
   "checkName": "string",
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
      },
      "roleAliasArn": "string"
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

Required: Yes

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "checkName": "string",
   "description": "string",
   "expirationDate": number,
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
```

```
      },
      "roleAliasArn": "string"
   },
   "suppressIndefinitely": boolean
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

**description**

The description of the audit suppression.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

**expirationDate**

The epoch timestamp in seconds at which this suppression expires.

Type: Timestamp

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

**suppressIndefinitely**

Indicates whether a suppression should exist indefinitely or not.

Type: Boolean

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeAuditTask

Service: AWS IoT

Gets information about a Device Defender audit.

Requires permission to access the DescribeAuditTask action.

## Request Syntax

```
GET /audit/tasks/taskId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The ID of the audit whose information you want to get.

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "auditDetails": {
      "string" : {
         "checkCompliant": boolean,
         "checkRunStatus": "string",
         "errorCode": "string",
         "message": "string",
```

```
            "nonCompliantResourcesCount": number,
            "suppressedNonCompliantResourcesCount": number,
            "totalResourcesCount": number
         }
      },
      "scheduledAuditName": "string",
      "taskStartTime": number,
      "taskStatistics": {
         "canceledChecks": number,
         "compliantChecks": number,
         "failedChecks": number,
         "inProgressChecks": number,
         "nonCompliantChecks": number,
         "totalChecks": number,
         "waitingForDataCollectionChecks": number
      },
      "taskStatus": "string",
      "taskType": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**auditDetails**

Detailed information about each check performed during this audit.

Type: String to AuditCheckDetails object map

**scheduledAuditName**

The name of the scheduled audit (only if the audit was a scheduled audit).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**taskStartTime**

The time the audit started.

Type: Timestamp

**taskStatistics**

Statistical information about the audit.

Type: TaskStatistics object

**taskStatus**

The status of the audit: one of "IN_PROGRESS", "COMPLETED", "FAILED", or "CANCELED".

Type: String

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED`

**taskType**

The type of audit: "ON_DEMAND_AUDIT_TASK" or "SCHEDULED_AUDIT_TASK".

Type: String

Valid Values: `ON_DEMAND_AUDIT_TASK | SCHEDULED_AUDIT_TASK`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeAuthorizer

Service: AWS IoT

Describes an authorizer.

Requires permission to access the DescribeAuthorizer action.

## Request Syntax

```
GET /authorizer/authorizerName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### authorizerName

The name of the authorizer to describe.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authorizerDescription": {
      "authorizerArn": "string",
      "authorizerFunctionArn": "string",
      "authorizerName": "string",
      "creationDate": number,
```

```
      "enableCachingForHttp": boolean,
      "lastModifiedDate": number,
      "signingDisabled": boolean,
      "status": "string",
      "tokenKeyName": "string",
      "tokenSigningPublicKeys": {
         "string" : "string"
      }
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authorizerDescription**

The authorizer description.

Type: AuthorizerDescription object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeBillingGroup

Service: AWS IoT

Returns information about a billing group.

Requires permission to access the DescribeBillingGroup action.

## Request Syntax

```
GET /billing-groups/billingGroupName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### billingGroupName

The name of the billing group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "billingGroupArn": "string",
   "billingGroupId": "string",
   "billingGroupMetadata": {
      "creationDate": number
   },
   "billingGroupName": "string",
```

```
   "billingGroupProperties": {
      "billingGroupDescription": "string"
   },
   "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**billingGroupArn**

The ARN of the billing group.

Type: String

**billingGroupId**

The ID of the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

**billingGroupMetadata**

Additional information about the billing group.

Type: BillingGroupMetadata object

**billingGroupName**

The name of the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**billingGroupProperties**

The properties of the billing group.

Type: BillingGroupProperties object

**version**

The version of the billing group.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeCACertificate

Service: AWS IoT

Describes a registered CA certificate.

Requires permission to access the DescribeCACertificate action.

## Request Syntax

```
GET /cacertificate/caCertificateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### caCertificateId

The CA certificate identifier.

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateDescription": {
      "autoRegistrationStatus": "string",
      "certificateArn": "string",
      "certificateId": "string",
      "certificateMode": "string",
      "certificatePem": "string",
      "creationDate": number,
```

```
      "customerVersion": number,
      "generationId": "string",
      "lastModifiedDate": number,
      "ownedBy": "string",
      "status": "string",
      "validity": {
         "notAfter": number,
         "notBefore": number
      }
   },
   "registrationConfig": {
      "roleArn": "string",
      "templateBody": "string",
      "templateName": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateDescription**

The CA certificate description.

Type: CACertificateDescription object

**registrationConfig**

Information about the registration configuration.

Type: RegistrationConfig object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeCertificate

Service: AWS IoT

Gets information about the specified certificate.

Requires permission to access the DescribeCertificate action.

## Request Syntax

```
GET /certificates/certificateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### certificateId

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateDescription": {
      "caCertificateId": "string",
      "certificateArn": "string",
      "certificateId": "string",
      "certificateMode": "string",
```

```
      "certificatePem": "string",
      "creationDate": number,
      "customerVersion": number,
      "generationId": "string",
      "lastModifiedDate": number,
      "ownedBy": "string",
      "previousOwnedBy": "string",
      "status": "string",
      "transferData": {
         "acceptDate": number,
         "rejectDate": number,
         "rejectReason": "string",
         "transferDate": number,
         "transferMessage": "string"
      },
      "validity": {
         "notAfter": number,
         "notBefore": number
      }
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### certificateDescription

The description of the certificate.

Type: CertificateDescription object

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeCertificateProvider

Service: AWS IoT

Describes a certificate provider.

Requires permission to access the DescribeCertificateProvider action.

## Request Syntax

```
GET /certificate-providers/certificateProviderName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### certificateProviderName

The name of the certificate provider.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "accountDefaultForOperations": [ "string" ],
   "certificateProviderArn": "string",
   "certificateProviderName": "string",
   "creationDate": number,
   "lambdaFunctionArn": "string",
   "lastModifiedDate": number
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**accountDefaultForOperations**

A list of the operations that the certificate provider will use to generate certificates. Valid value: `CreateCertificateFromCsr`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `CreateCertificateFromCsr`

**certificateProviderArn**

The ARN of the certificate provider.

Type: String

Length Constraints: Maximum length of 2048.

**certificateProviderName**

The name of the certificate provider.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

**creationDate**

The date-time string that indicates when the certificate provider was created.

Type: Timestamp

**lambdaFunctionArn**

The Lambda function ARN that's associated with the certificate provider.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: [\s\S]*

**lastModifiedDate**

The date-time string that indicates when the certificate provider was last updated.

Type: Timestamp

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeCustomMetric

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Gets information about a Device Defender detect custom metric.

Requires permission to access the DescribeCustomMetric action.

## Request Syntax

```
GET /custom-metric/metricName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### metricName

The name of the custom metric.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "creationDate": number,
   "displayName": "string",
   "lastModifiedDate": number,
   "metricArn": "string",
   "metricName": "string",
   "metricType": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The creation date of the custom metric in milliseconds since epoch.

Type: Timestamp

**displayName**

Field represents a friendly name in the console for the custom metric; doesn't have to be unique. Don't use this name as the metric identifier in the device metric report. Can be updated.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\p{Graph}\x20]*`

**lastModifiedDate**

The time the custom metric was last modified in milliseconds since epoch.

Type: Timestamp

**metricArn**

The Amazon Resource Number (ARN) of the custom metric.

Type: String

**metricName**

The name of the custom metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**metricType**

The type of the custom metric.

> **Important**
>
> The type `number` only takes a single metric value as an input, but while submitting the metrics value in the DeviceMetrics report, it must be passed as an array with a single value.

Type: String

Valid Values: `string-list | ip-address-list | number-list | number`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeDefaultAuthorizer

Service: AWS IoT

Describes the default authorizer.

Requires permission to access the DescribeDefaultAuthorizer action.

## Request Syntax

```
GET /default-authorizer HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authorizerDescription": {
      "authorizerArn": "string",
      "authorizerFunctionArn": "string",
      "authorizerName": "string",
      "creationDate": number,
      "enableCachingForHttp": boolean,
      "lastModifiedDate": number,
      "signingDisabled": boolean,
      "status": "string",
      "tokenKeyName": "string",
      "tokenSigningPublicKeys": {
         "string" : "string"
      }
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authorizerDescription**

The default authorizer's description.

Type: AuthorizerDescription object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeDetectMitigationActionsTask

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Gets information about a Device Defender ML Detect mitigation action.

Requires permission to access the DescribeDetectMitigationActionsTask action.

## Request Syntax

```
GET /detect/mitigationactions/tasks/taskId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The unique identifier of the task.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "taskSummary": {
      "actionsDefinition": [
         {
            "actionParams": {
               "addThingsToThingGroupParams": {
                  "overrideDynamicGroups": boolean,
                  "thingGroupNames": [ "string" ]
               },
               "enableIoTLoggingParams": {
                  "logLevel": "string",
                  "roleArnForLogging": "string"
               },
               "publishFindingToSnsParams": {
                  "topicArn": "string"
               },
               "replaceDefaultPolicyVersionParams": {
                  "templateName": "string"
               },
               "updateCACertificateParams": {
                  "action": "string"
               },
               "updateDeviceCertificateParams": {
                  "action": "string"
               }
            },
            "id": "string",
            "name": "string",
            "roleArn": "string"
         }
      ],
      "onlyActiveViolationsIncluded": boolean,
      "suppressedAlertsIncluded": boolean,
      "target": {
         "behaviorName": "string",
         "securityProfileName": "string",
         "violationIds": [ "string" ]
      },
      "taskEndTime": number,
      "taskId": "string",
      "taskStartTime": number,
      "taskStatistics": {
```

```
            "actionsExecuted": number,
            "actionsFailed": number,
            "actionsSkipped": number
        },
        "taskStatus": "string",
        "violationEventOccurrenceRange": {
            "endTime": number,
            "startTime": number
        }
    }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### taskSummary

The description of a task.

Type: DetectMitigationActionsTaskSummary object

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

### InvalidRequestException

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeDimension

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Provides details about a dimension that is defined in your AWS accounts.

Requires permission to access the DescribeDimension action.

## Request Syntax

```
GET /dimensions/name HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### name

The unique identifier for the dimension.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "arn": "string",
   "creationDate": number,
   "lastModifiedDate": number,
   "name": "string",
   "stringValues": [ "string" ],
   "type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**arn**

The Amazon Resource Name (ARN) for the dimension.

Type: String

**creationDate**

The date the dimension was created.

Type: Timestamp

**lastModifiedDate**

The date the dimension was last modified.

Type: Timestamp

**name**

The unique identifier for the dimension.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**stringValues**

The value or list of values used to scope the dimension. For example, for topic filters, this is the pattern used to match the MQTT topic name.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

**type**

The type of the dimension.

Type: String

Valid Values: `TOPIC_FILTER`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeDomainConfiguration

Service: AWS IoT

Gets summary information about a domain configuration.

Requires permission to access the DescribeDomainConfiguration action.

## Request Syntax

```
GET /domainConfigurations/domainConfigurationName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### domainConfigurationName

The name of the domain configuration.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.:-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "applicationProtocol": "string",
   "authenticationType": "string",
   "authorizerConfig": {
      "allowAuthorizerOverride": boolean,
      "defaultAuthorizerName": "string"
   },
   "clientCertificateConfig": {
```

```
      "clientCertificateCallbackArn": "string"
   },
   "domainConfigurationArn": "string",
   "domainConfigurationName": "string",
   "domainConfigurationStatus": "string",
   "domainName": "string",
   "domainType": "string",
   "lastStatusChangeDate": number,
   "serverCertificateConfig": {
      "enableOCSPCheck": boolean,
      "ocspAuthorizedResponderArn": "string",
      "ocspLambdaArn": "string"
   },
   "serverCertificates": [
      {
         "serverCertificateArn": "string",
         "serverCertificateStatus": "string",
         "serverCertificateStatusDetail": "string"
      }
   ],
   "serviceType": "string",
   "tlsConfig": {
      "securityPolicy": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### applicationProtocol

An enumerated string that specifies the application-layer protocol.

- SECURE_MQTT - MQTT over TLS.
- MQTT_WSS - MQTT over WebSocket.
- HTTPS - HTTP over TLS.
- DEFAULT - Use a combination of port and Application Layer Protocol Negotiation (ALPN) to specify application_layer protocol. For more information, see Device communication protocols.

Type: String

Valid Values: `SECURE_MQTT | MQTT_WSS | HTTPS | DEFAULT`

**authenticationType**

An enumerated string that specifies the authentication type.

- `CUSTOM_AUTH_X509` - Use custom authentication and authorization with additional details from the X.509 client certificate.
- `CUSTOM_AUTH` - Use custom authentication and authorization. For more information, see Custom authentication and authorization.
- `AWS_X509` - Use X.509 client certificates without custom authentication and authorization. For more information, see X.509 client certificates.
- `AWS_SIGV4` - Use AWS Signature Version 4. For more information, see IAM users, groups, and roles.
- `DEFAULT` - Use a combination of port and Application Layer Protocol Negotiation (ALPN) to specify authentication type. For more information, see Device communication protocols.

Type: String

Valid Values: `CUSTOM_AUTH_X509 | CUSTOM_AUTH | AWS_X509 | AWS_SIGV4 | DEFAULT`

**authorizerConfig**

An object that specifies the authorization service for a domain.

Type: AuthorizerConfig object

**clientCertificateConfig**

An object that specifies the client certificate configuration for a domain.

Type: ClientCertificateConfig object

**domainConfigurationArn**

The ARN of the domain configuration.

Type: String

**domainConfigurationName**

The name of the domain configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.:-]+`

**domainConfigurationStatus**

A Boolean value that specifies the current state of the domain configuration.

Type: String

Valid Values: `ENABLED | DISABLED`

**domainName**

The name of the domain.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `[\s\S]*`

**domainType**

The type of the domain.

Type: String

Valid Values: `ENDPOINT | AWS_MANAGED | CUSTOMER_MANAGED`

**lastStatusChangeDate**

The date and time the domain configuration's status was last changed.

Type: Timestamp

**serverCertificateConfig**

The server certificate configuration.

Type: ServerCertificateConfig object

**serverCertificates**

A list containing summary information about the server certificate included in the domain configuration.

Type: Array of ServerCertificateSummary objects

**serviceType**

The type of service delivered by the endpoint.

Type: String

Valid Values: `DATA | CREDENTIAL_PROVIDER | JOBS`

**tlsConfig**

An object that specifies the TLS configuration for a domain.

Type: TlsConfig object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeEncryptionConfiguration

Service: AWS IoT

Retrieves the encryption configuration for resources and data of your AWS account in AWS IoT Core. For more information, see Data encryption at rest in the *AWS IoT Core Developer Guide*.

## Request Syntax

```
GET /encryption-configuration HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "configurationDetails": {
      "configurationStatus": "string",
      "errorCode": "string",
      "errorMessage": "string"
   },
   "encryptionType": "string",
   "kmsAccessRoleArn": "string",
   "kmsKeyArn": "string",
   "lastModifiedDate": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**configurationDetails**

The encryption configuration details that include the status information of the KMS key and the AWS KMS access role.

Type: ConfigurationDetails object

**encryptionType**

The type of the KMS key.

Type: String

Valid Values: `CUSTOMER_MANAGED_KMS_KEY | AWS_OWNED_KMS_KEY`

**kmsAccessRoleArn**

The Amazon Resource Name (ARN) of the IAM role assumed by AWS IoT Core to call AWS KMS on behalf of the customer.

Type: String

Length Constraints: Maximum length of 2048.

**kmsKeyArn**

The ARN of the customer managed KMS key.

Type: String

Length Constraints: Maximum length of 2048.

**lastModifiedDate**

The date when encryption configuration is last updated.

Type: Timestamp

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeEndpoint

Service: AWS IoT

Returns or creates a unique endpoint specific to the AWS account making the call.

> **Note**
>
> The first time `DescribeEndpoint` is called, an endpoint is created. All subsequent calls to `DescribeEndpoint` return the same endpoint.

Requires permission to access the DescribeEndpoint action.

## Request Syntax

```
GET /endpoint?endpointType=endpointType HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### endpointType

The endpoint type. Valid endpoint types include:

- `iot:Data` - Returns a VeriSign signed data endpoint.
- `iot:Data-ATS` - Returns an ATS signed data endpoint.
- `iot:CredentialProvider` - Returns an AWS IoT credentials provider API endpoint.
- `iot:Jobs` - Returns an AWS IoT device management Jobs API endpoint.

We strongly recommend that customers use the newer `iot:Data-ATS` endpoint type to avoid issues related to the widespread distrust of Symantec certificate authorities. ATS Signed Certificates are more secure and are trusted by most popular browsers.

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "endpointAddress": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**endpointAddress**

The endpoint. The format of the endpoint is as follows: *identifier*.iot.*region*.amazonaws.com.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeEventConfigurations

Service: AWS IoT

Describes event configurations.

Requires permission to access the DescribeEventConfigurations action.

## Request Syntax

```
GET /event-configurations HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "eventConfigurations": {
      "string" : {
         "Enabled": boolean
      }
   },
   "lastModifiedDate": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The creation date of the event configuration.

Type: Timestamp

**eventConfigurations**

The event configurations.

Type: String to Configuration object map

Valid Keys: `THING | THING_GROUP | THING_TYPE | THING_GROUP_MEMBERSHIP | THING_GROUP_HIERARCHY | THING_TYPE_ASSOCIATION | JOB | JOB_EXECUTION | POLICY | CERTIFICATE | CA_CERTIFICATE`

**lastModifiedDate**

The date the event configurations were last modified.

Type: Timestamp

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeFleetMetric

Service: AWS IoT

Gets information about the specified fleet metric.

Requires permission to access the DescribeFleetMetric action.

## Request Syntax

```
GET /fleet-metric/metricName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### metricName

The name of the fleet metric to describe.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "aggregationField": "string",
   "aggregationType": {
      "name": "string",
      "values": [ "string" ]
   },
   "creationDate": number,
   "description": "string",
```

```
    "indexName": "string",
    "lastModifiedDate": number,
    "metricArn": "string",
    "metricName": "string",
    "period": number,
    "queryString": "string",
    "queryVersion": "string",
    "unit": "string",
    "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**aggregationField**

The field to aggregate.

Type: String

Length Constraints: Minimum length of 1.

**aggregationType**

The type of the aggregation query.

Type: AggregationType object

**creationDate**

The date when the fleet metric is created.

Type: Timestamp

**description**

The fleet metric description.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{Graph}\x20]*`

**indexName**

The name of the index to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**lastModifiedDate**

The date when the fleet metric is last modified.

Type: Timestamp

**metricArn**

The ARN of the fleet metric to describe.

Type: String

**metricName**

The name of the fleet metric to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

**period**

The time in seconds between fleet metric emissions. Range [60(1 min), 86400(1 day)] and must be multiple of 60.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 86400.

**queryString**

The search query string.

Type: String

Length Constraints: Minimum length of 1.

**queryVersion**

The query version.

Type: String

**unit**

Used to support unit transformation such as milliseconds to seconds. The unit must be supported by CW metric.

Type: String

Valid Values: `Seconds | Microseconds | Milliseconds | Bytes | Kilobytes | Megabytes | Gigabytes | Terabytes | Bits | Kilobits | Megabits | Gigabits | Terabits | Percent | Count | Bytes/Second | Kilobytes/Second | Megabytes/Second | Gigabytes/Second | Terabytes/Second | Bits/Second | Kilobits/Second | Megabits/Second | Gigabits/Second | Terabits/Second | Count/Second | None`

**version**

The version of the fleet metric.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeIndex

Service: AWS IoT

Describes a search index.

Requires permission to access the DescribeIndex action.

## Request Syntax

```
GET /indices/indexName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### indexName

The index name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "indexName": "string",
   "indexStatus": "string",
   "schema": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**indexName**

The index name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**indexStatus**

The index status.

Type: String

Valid Values: `ACTIVE | BUILDING | REBUILDING`

**schema**

Contains a value that specifies the type of indexing performed. Valid values are:

- REGISTRY – Your thing index contains only registry data.
- REGISTRY_AND_SHADOW - Your thing index contains registry data and shadow data.
- REGISTRY_AND_CONNECTIVITY_STATUS - Your thing index contains registry data and thing connectivity status data.
- REGISTRY_AND_SHADOW_AND_CONNECTIVITY_STATUS - Your thing index contains registry data, shadow data, and thing connectivity status data.
- MULTI_INDEXING_MODE - Your thing index contains multiple data sources. For more information, see GetIndexingConfiguration.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeJob

Service: AWS IoT

Describes a job.

Requires permission to access the DescribeJob action.

## Request Syntax

```
GET /jobs/jobId?beforeSubstitution=beforeSubstitution HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**beforeSubstitution**

Provides a view of the job document before and after the substitution parameters have been resolved with their exact values.

**jobId**

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "documentSource": "string",
   "job": {
      "abortConfig": {
```

```
      "criteriaList": [
         {
            "action": "string",
            "failureType": "string",
            "minNumberOfExecutedThings": number,
            "thresholdPercentage": number
         }
      ]
   },
   "comment": "string",
   "completedAt": number,
   "createdAt": number,
   "description": "string",
   "destinationPackageVersions": [ "string" ],
   "documentParameters": {
      "string" : "string"
   },
   "forceCanceled": boolean,
   "isConcurrent": boolean,
   "jobArn": "string",
   "jobExecutionsRetryConfig": {
      "criteriaList": [
         {
            "failureType": "string",
            "numberOfRetries": number
         }
      ]
   },
   "jobExecutionsRolloutConfig": {
      "exponentialRate": {
         "baseRatePerMinute": number,
         "incrementFactor": number,
         "rateIncreaseCriteria": {
            "numberOfNotifiedThings": number,
            "numberOfSucceededThings": number
         }
      },
      "maximumPerMinute": number
   },
   "jobId": "string",
   "jobProcessDetails": {
      "numberOfCanceledThings": number,
      "numberOfFailedThings": number,
      "numberOfInProgressThings": number,
```

```
         "numberOfQueuedThings": number,
         "numberOfRejectedThings": number,
         "numberOfRemovedThings": number,
         "numberOfSucceededThings": number,
         "numberOfTimedOutThings": number,
         "processingTargets": [ "string" ]
      },
      "jobTemplateArn": "string",
      "lastUpdatedAt": number,
      "namespaceId": "string",
      "presignedUrlConfig": {
         "expiresInSec": number,
         "roleArn": "string"
      },
      "reasonCode": "string",
      "scheduledJobRollouts": [
         {
            "startTime": "string"
         }
      ],
      "schedulingConfig": {
         "endBehavior": "string",
         "endTime": "string",
         "maintenanceWindows": [
            {
               "durationInMinutes": number,
               "startTime": "string"
            }
         ],
         "startTime": "string"
      },
      "status": "string",
      "targets": [ "string" ],
      "targetSelection": "string",
      "timeoutConfig": {
         "inProgressTimeoutInMinutes": number
      }
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**documentSource**

An S3 link to the job document.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1350.

**job**

Information about the job.

Type: Job object

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeJobExecution

Service: AWS IoT

Describes a job execution.

Requires permission to access the DescribeJobExecution action.

## Request Syntax

```
GET /things/thingName/jobs/jobId?executionNumber=executionNumber HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**executionNumber**

A string (consisting of the digits "0" through "9" which is used to specify a particular job execution on a particular device.

**jobId**

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**thingName**

The name of the thing on which the job execution is running.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "execution": {
      "approximateSecondsBeforeTimedOut": number,
      "executionNumber": number,
      "forceCanceled": boolean,
      "jobId": "string",
      "lastUpdatedAt": number,
      "queuedAt": number,
      "startedAt": number,
      "status": "string",
      "statusDetails": {
         "detailsMap": {
            "string" : "string"
         }
      },
      "thingArn": "string",
      "versionNumber": number
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**execution**

Information about the job execution.

Type: JobExecution object

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeJobTemplate

Service: AWS IoT

Returns information about a job template.

## Request Syntax

```
GET /job-templates/jobTemplateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### jobTemplateId

The unique identifier of the job template.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "abortConfig": {
      "criteriaList": [
         {
            "action": "string",
            "failureType": "string",
            "minNumberOfExecutedThings": number,
            "thresholdPercentage": number
         }
      ]
```

```
   },
   "createdAt": number,
   "description": "string",
   "destinationPackageVersions": [ "string" ],
   "document": "string",
   "documentSource": "string",
   "jobExecutionsRetryConfig": {
      "criteriaList": [
         {
            "failureType": "string",
            "numberOfRetries": number
         }
      ]
   },
   "jobExecutionsRolloutConfig": {
      "exponentialRate": {
         "baseRatePerMinute": number,
         "incrementFactor": number,
         "rateIncreaseCriteria": {
            "numberOfNotifiedThings": number,
            "numberOfSucceededThings": number
         }
      },
      "maximumPerMinute": number
   },
   "jobTemplateArn": "string",
   "jobTemplateId": "string",
   "maintenanceWindows": [
      {
         "durationInMinutes": number,
         "startTime": "string"
      }
   ],
   "presignedUrlConfig": {
      "expiresInSec": number,
      "roleArn": "string"
   },
   "timeoutConfig": {
      "inProgressTimeoutInMinutes": number
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**abortConfig**

The criteria that determine when and how a job abort takes place.

Type: AbortConfig object

**createdAt**

The time, in seconds since the epoch, when the job template was created.

Type: Timestamp

**description**

A description of the job template.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

**destinationPackageVersions**

The package version Amazon Resource Names (ARNs) that are installed on the device when the job successfully completes. The package version must be in either the Published or Deprecated state when the job deploys. For more information, see Package version lifecycle.

**Note:**The following Length Constraints relates to a single ARN. Up to 25 package version ARNs are allowed.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

**document**

The job document.

Type: String

Length Constraints: Maximum length of 32768.

**documentSource**

An S3 link to the job document.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1350.

**jobExecutionsRetryConfig**

The configuration that determines how many retries are allowed for each failure type for a job.

Type: JobExecutionsRetryConfig object

**jobExecutionsRolloutConfig**

Allows you to create a staged rollout of a job.

Type: JobExecutionsRolloutConfig object

**jobTemplateArn**

The ARN of the job template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

**jobTemplateId**

The unique identifier of the job template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

**maintenanceWindows**

Allows you to configure an optional maintenance window for the rollout of a job document to all devices in the target group for a job.

Type: Array of MaintenanceWindow objects

**presignedUrlConfig**

Configuration for pre-signed S3 URLs.

Type: PresignedUrlConfig object

**timeoutConfig**

Specifies the amount of time each device has to finish its execution of the job. A timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the timer expires, it will be automatically set to `TIMED_OUT`.

Type: TimeoutConfig object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeManagedJobTemplate

Service: AWS IoT

View details of a managed job template.

## Request Syntax

```
GET /managed-job-templates/templateName?templateVersion=templateVersion HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**templateName**

The unique name of a managed job template, which is required.

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

**templateVersion**

An optional parameter to specify version of a managed template. If not specified, the pre-defined default version is returned.

Pattern: `^[1-9]+.[0-9]+`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "description": "string",
   "document": "string",
```

```
   "documentParameters": [
      {
         "description": "string",
         "example": "string",
         "key": "string",
         "optional": boolean,
         "regex": "string"
      }
   ],
   "environments": [ "string" ],
   "templateArn": "string",
   "templateName": "string",
   "templateVersion": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### description

The unique description of a managed template.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

### document

The document schema for a managed job template.

Type: String

Length Constraints: Maximum length of 32768.

### documentParameters

A map of key-value pairs that you can use as guidance to specify the inputs for creating a job from a managed template.

> **Note**
>
> `documentParameters` can only be used when creating jobs from AWS managed templates. This parameter can't be used with custom job templates or to create jobs from them.

Type: Array of DocumentParameter objects

**environments**

A list of environments that are supported with the managed job template.

Type: Array of strings

Pattern: `[^\p{C}]+`

**templateArn**

The unique Amazon Resource Name (ARN) of the managed template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

**templateName**

The unique name of a managed template, such as `AWS-Reboot`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

**templateVersion**

The version for a managed template.

Type: String

Pattern: `^[1-9]+.[0-9]+`

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeMitigationAction

Service: AWS IoT

Gets information about a mitigation action.

Requires permission to access the DescribeMitigationAction action.

## Request Syntax

```
GET /mitigationactions/actions/actionName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### actionName

The friendly name that uniquely identifies the mitigation action.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "actionArn": "string",
   "actionId": "string",
   "actionName": "string",
   "actionParams": {
      "addThingsToThingGroupParams": {
```

```
            "overrideDynamicGroups": boolean,
            "thingGroupNames": [ "string" ]
         },
         "enableIoTLoggingParams": {
            "logLevel": "string",
            "roleArnForLogging": "string"
         },
         "publishFindingToSnsParams": {
            "topicArn": "string"
         },
         "replaceDefaultPolicyVersionParams": {
            "templateName": "string"
         },
         "updateCACertificateParams": {
            "action": "string"
         },
         "updateDeviceCertificateParams": {
            "action": "string"
         }
      },
      "actionType": "string",
      "creationDate": number,
      "lastModifiedDate": number,
      "roleArn": "string"
   }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### actionArn

The ARN that identifies this migration action.

Type: String

### actionId

A unique identifier for this action.

Type: String

**actionName**

The friendly name that uniquely identifies the mitigation action.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**actionParams**

Parameters that control how the mitigation action is applied, specific to the type of mitigation action.

Type: MitigationActionParams object

**actionType**

The type of mitigation action.

Type: String

Valid Values: `UPDATE_DEVICE_CERTIFICATE | UPDATE_CA_CERTIFICATE | ADD_THINGS_TO_THING_GROUP | REPLACE_DEFAULT_POLICY_VERSION | ENABLE_IOT_LOGGING | PUBLISH_FINDING_TO_SNS`

**creationDate**

The date and time when the mitigation action was added to your AWS accounts.

Type: Timestamp

**lastModifiedDate**

The date and time when the mitigation action was last changed.

Type: Timestamp

**roleArn**

The ARN of the IAM role used to apply this action.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeProvisioningTemplate

Service: AWS IoT

Returns information about a provisioning template.

Requires permission to access the DescribeProvisioningTemplate action.

## Request Syntax

```
GET /provisioning-templates/templateName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### templateName

The name of the provisioning template.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9A-Za-z_-]+$

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "defaultVersionId": number,
   "description": "string",
   "enabled": boolean,
   "lastModifiedDate": number,
   "preProvisioningHook": {
      "payloadVersion": "string",
```

```
      "targetArn": "string"
   },
   "provisioningRoleArn": "string",
   "templateArn": "string",
   "templateBody": "string",
   "templateName": "string",
   "type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The date when the provisioning template was created.

Type: Timestamp

**defaultVersionId**

The default fleet template version ID.

Type: Integer

**description**

The description of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[^\p{C}]*`

**enabled**

True if the provisioning template is enabled, otherwise false.

Type: Boolean

**lastModifiedDate**

The date when the provisioning template was last modified.

Type: Timestamp

**preProvisioningHook**

Gets information about a pre-provisioned hook.

Type: ProvisioningHook object

**provisioningRoleArn**

The ARN of the role associated with the provisioning template. This IoT role grants permission to provision a device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**templateArn**

The ARN of the provisioning template.

Type: String

**templateBody**

The JSON formatted contents of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

**templateName**

The name of the provisioning template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

**type**

The type you define in a provisioning template. You can create a template with only one type. You can't change the template type after its creation. The default value is

FLEET_PROVISIONING. For more information about provisioning template, see: Provisioning template.

Type: String

Valid Values: FLEET_PROVISIONING | JITP

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeProvisioningTemplateVersion

Service: AWS IoT

Returns information about a provisioning template version.

Requires permission to access the DescribeProvisioningTemplateVersion action.

## Request Syntax

```
GET /provisioning-templates/templateName/versions/versionId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### templateName

The template name.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

### versionId

The provisioning template version ID.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "isDefaultVersion": boolean,
```

```
    "templateBody": "string",
    "versionId": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The date when the provisioning template version was created.

Type: Timestamp

**isDefaultVersion**

True if the provisioning template version is the default version.

Type: Boolean

**templateBody**

The JSON formatted contents of the provisioning template version.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

**versionId**

The provisioning template version ID.

Type: Integer

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeRoleAlias

Service: AWS IoT

Describes a role alias.

Requires permission to access the DescribeRoleAlias action.

## Request Syntax

```
GET /role-aliases/roleAlias HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### roleAlias

The role alias to describe.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "roleAliasDescription": {
      "creationDate": number,
      "credentialDurationSeconds": number,
      "lastModifiedDate": number,
      "owner": "string",
      "roleAlias": "string",
```

```
      "roleAliasArn": "string",
      "roleArn": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**roleAliasDescription**

The role alias description.

Type: RoleAliasDescription object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeScheduledAudit

Service: AWS IoT

Gets information about a scheduled audit.

Requires permission to access the DescribeScheduledAudit action.

## Request Syntax

```
GET /audit/scheduledaudits/scheduledAuditName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### scheduledAuditName

The name of the scheduled audit whose information you want to get.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "dayOfMonth": "string",
   "dayOfWeek": "string",
   "frequency": "string",
   "scheduledAuditArn": "string",
   "scheduledAuditName": "string",
   "targetCheckNames": [ "string" ]
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**dayOfMonth**

The day of the month on which the scheduled audit takes place. This is will be 1 through 31 or LAST. If days 29-31 are specified, and the month does not have that many days, the audit takes place on the LAST day of the month.

Type: String

Pattern: `^([1-9]|[12][0-9]|3[01])$|^LAST$`

**dayOfWeek**

The day of the week on which the scheduled audit takes place, either one of SUN, MON, TUE, WED, THU, FRI, or SAT.

Type: String

Valid Values: `SUN | MON | TUE | WED | THU | FRI | SAT`

**frequency**

How often the scheduled audit takes place, either one of DAILY, WEEKLY, BIWEEKLY, or MONTHLY. The start time of each audit is determined by the system.

Type: String

Valid Values: `DAILY | WEEKLY | BIWEEKLY | MONTHLY`

**scheduledAuditArn**

The ARN of the scheduled audit.

Type: String

**scheduledAuditName**

The name of the scheduled audit.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**targetCheckNames**

Which checks are performed during the scheduled audit. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: Array of strings

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Gets information about a Device Defender security profile.

Requires permission to access the DescribeSecurityProfile action.

## Request Syntax

```
GET /security-profiles/securityProfileName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### securityProfileName

The name of the security profile whose information you want to get.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "additionalMetricsToRetain": [ "string" ],
   "additionalMetricsToRetainV2": [
      {
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         }
      }
   ],
   "alertTargets": {
      "string" : {
         "alertTargetArn": "string",
         "roleArn": "string"
      }
   },
   "behaviors": [
      {
         "criteria": {
            "comparisonOperator": "string",
            "consecutiveDatapointsToAlarm": number,
            "consecutiveDatapointsToClear": number,
            "durationSeconds": number,
            "mlDetectionConfig": {
               "confidenceLevel": "string"
            },
            "statisticalThreshold": {
               "statistic": "string"
            },
            "value": {
               "cidrs": [ "string" ],
               "count": number,
               "number": number,
               "numbers": [ number ],
               "ports": [ number ],
               "strings": [ "string" ]
            }
         },
         "exportMetric": boolean,
         "metric": "string",
```

```
            "metricDimension": {
               "dimensionName": "string",
               "operator": "string"
            },
            "name": "string",
            "suppressAlerts": boolean
         }
      ],
      "creationDate": number,
      "lastModifiedDate": number,
      "metricsExportConfig": {
         "mqttTopic": "string",
         "roleArn": "string"
      },
      "securityProfileArn": "string",
      "securityProfileDescription": "string",
      "securityProfileName": "string",
      "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**additionalMetricsToRetain**

*This parameter has been deprecated.*

*Please use DescribeSecurityProfile:additionalMetricsToRetainV2 instead.*

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's `behaviors`, but it is also retained for any metric specified here.

Type: Array of strings

**additionalMetricsToRetainV2**

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's behaviors, but it is also retained for any metric specified here.

Type: Array of MetricToRetain objects

**alertTargets**

Where the alerts are sent. (Alerts are always sent to the console.)

Type: String to AlertTarget object map

Valid Keys: SNS

**behaviors**

Specifies the behaviors that, when violated by a device (thing), cause an alert.

Type: Array of Behavior objects

Array Members: Maximum number of 100 items.

**creationDate**

The time the security profile was created.

Type: Timestamp

**lastModifiedDate**

The time the security profile was last modified.

Type: Timestamp

**metricsExportConfig**

Specifies the MQTT topic and role ARN required for metric export.

Type: MetricsExportConfig object

**securityProfileArn**

The ARN of the security profile.

Type: String

**securityProfileDescription**

A description of the security profile (associated with the security profile when it was created or updated).

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

**securityProfileName**

The name of the security profile.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**version**

The version of the security profile. A new version is generated whenever the security profile is updated.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeStream

Service: AWS IoT

Gets information about a stream.

Requires permission to access the DescribeStream action.

## Request Syntax

```
GET /streams/streamId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### streamId

The stream ID.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "streamInfo": {
      "createdAt": number,
      "description": "string",
      "files": [
         {
            "fileId": number,
            "s3Location": {
```

```
                "bucket": "string",
                "key": "string",
                "version": "string"
            }
        }
    ],
    "lastUpdatedAt": number,
    "roleArn": "string",
    "streamArn": "string",
    "streamId": "string",
    "streamVersion": number
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**streamInfo**

Information about the stream.

Type: StreamInfo object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeThing

Service: AWS IoT

Gets information about the specified thing.

Requires permission to access the DescribeThing action.

## Request Syntax

```
GET /things/thingName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "attributes": {
      "string" : "string"
   },
   "billingGroupName": "string",
   "defaultClientId": "string",
   "thingArn": "string",
```

```
    "thingId": "string",
    "thingName": "string",
    "thingTypeName": "string",
    "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**attributes**

The thing attributes.

Type: String to string map

Key Length Constraints: Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Value Length Constraints: Maximum length of 800.

Value Pattern: `[a-zA-Z0-9_.,@/:#=\[\]-]*`

**billingGroupName**

The name of the billing group the thing belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**defaultClientId**

The default MQTT client ID. For a typical device, the thing name is also used as the default MQTT client ID. Although we don't require a mapping between a thing's registry name and its use of MQTT client IDs, certificates, or shadow state, we recommend that you choose a thing name and use it as the MQTT client ID for the registry and the Device Shadow service.

This lets you better organize your AWS IoT fleet without removing the flexibility of the underlying device certificate model or shadows.

Type: String

**thingArn**

The ARN of the thing to describe.

Type: String

**thingId**

The ID of the thing to describe.

Type: String

**thingName**

The name of the thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**thingTypeName**

The thing type name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**version**

The current version of the thing record in the registry.

> **Note**
>
> To avoid unintentional changes to the information in the registry, you can pass the version information in the `expectedVersion` parameter of the `UpdateThing` and `DeleteThing` calls.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeThingGroup

Service: AWS IoT

Describe a thing group.

Requires permission to access the DescribeThingGroup action.

## Request Syntax

```
GET /thing-groups/thingGroupName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### thingGroupName

The name of the thing group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string",
   "status": "string",
   "thingGroupArn": "string",
   "thingGroupId": "string",
```

```
   "thingGroupMetadata": {
      "creationDate": number,
      "parentGroupName": "string",
      "rootToParentThingGroups": [
         {
            "groupArn": "string",
            "groupName": "string"
         }
      ]
   },
   "thingGroupName": "string",
   "thingGroupProperties": {
      "attributePayload": {
         "attributes": {
            "string" : "string"
         },
         "merge": boolean
      },
      "thingGroupDescription": "string"
   },
   "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### indexName

The dynamic thing group index name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

### queryString

The dynamic thing group search query string.

Type: String

Length Constraints: Minimum length of 1.

**queryVersion**

The dynamic thing group query version.

Type: String

**status**

The dynamic thing group status.

Type: String

Valid Values: `ACTIVE | BUILDING | REBUILDING`

**thingGroupArn**

The thing group ARN.

Type: String

**thingGroupId**

The thing group ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

**thingGroupMetadata**

Thing group metadata.

Type: ThingGroupMetadata object

**thingGroupName**

The name of the thing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**thingGroupProperties**

The thing group properties.

Type: ThingGroupProperties object

**version**

The version of the thing group.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeThingRegistrationTask

Service: AWS IoT

Describes a bulk thing provisioning task.

Requires permission to access the DescribeThingRegistrationTask action.

## Request Syntax

```
GET /thing-registration-tasks/taskId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The task ID.

Length Constraints: Maximum length of 40.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "failureCount": number,
   "inputFileBucket": "string",
   "inputFileKey": "string",
   "lastModifiedDate": number,
   "message": "string",
   "percentageProgress": number,
   "roleArn": "string",
```

```
    "status": "string",
    "successCount": number,
    "taskId": "string",
    "templateBody": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The task creation date.

Type: Timestamp

**failureCount**

The number of things that failed to be provisioned.

Type: Integer

**inputFileBucket**

The S3 bucket that contains the input file.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 256.

Pattern: `[a-zA-Z0-9._-]+`

**inputFileKey**

The input file key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[a-zA-Z0-9!_.*'()-\/]+`

**lastModifiedDate**

The date when the task was last modified.

Type: Timestamp

**message**

The message.

Type: String

Length Constraints: Maximum length of 2048.

**percentageProgress**

The progress of the bulk provisioning task expressed as a percentage.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

**roleArn**

The role ARN that grants access to the input file bucket.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**status**

The status of the bulk thing provisioning task.

Type: String

Valid Values: `InProgress | Completed | Failed | Cancelled | Cancelling`

**successCount**

The number of things successfully provisioned.

Type: Integer

**taskId**

The task ID.

Type: String

Length Constraints: Maximum length of 40.

**templateBody**

The task's template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeThingType

Service: AWS IoT

Gets information about the specified thing type.

Requires permission to access the DescribeThingType action.

## Request Syntax

```
GET /thing-types/thingTypeName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### thingTypeName

The name of the thing type.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "thingTypeArn": "string",
   "thingTypeId": "string",
   "thingTypeMetadata": {
      "creationDate": number,
      "deprecated": boolean,
      "deprecationDate": number
   },
```

```
   "thingTypeName": "string",
   "thingTypeProperties": {
      "mqtt5Configuration": {
         "propagatingAttributes": [
            {
               "connectionAttribute": "string",
               "thingAttribute": "string",
               "userPropertyKey": "string"
            }
         ]
      },
      "searchableAttributes": [ "string" ],
      "thingTypeDescription": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**thingTypeArn**

The thing type ARN.

Type: String

**thingTypeId**

The thing type ID.

Type: String

**thingTypeMetadata**

The ThingTypeMetadata contains additional information about the thing type including: creation date and time, a value indicating whether the thing type is deprecated, and a date and time when it was deprecated.

Type: ThingTypeMetadata object

**thingTypeName**

The name of the thing type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**thingTypeProperties**

The ThingTypeProperties contains information about the thing type including description, a list of searchable thing attribute names, and MQTT5 configuration.

Type: ThingTypeProperties object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DetachPolicy

Service: AWS IoT

Detaches a policy from the specified target.

> **Note**
>
> Because of the distributed nature of AWS, it can take up to five minutes after a policy is detached before it's ready to be deleted.

Requires permission to access the DetachPolicy action.

## Request Syntax

```
POST /target-policies/policyName HTTP/1.1
Content-type: application/json

{
   "target": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The policy to detach.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**target**

The target from which the policy will be detached.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DetachPrincipalPolicy

Service: AWS IoT

Removes the specified policy from the specified certificate.

**Note:** This action is deprecated and works as expected for backward compatibility, but we won't add enhancements. Use DetachPolicy instead.

Requires permission to access the DetachPrincipalPolicy action.

## Request Syntax

```
DELETE /principal-policies/policyName HTTP/1.1
x-amzn-iot-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

**policyName**

The name of the policy to detach.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

**principal**

The principal.

Valid principals are CertificateArn (arn:aws:iot:*region*:*accountId*:cert/*certificateId*), thingGroupArn (arn:aws:iot:*region*:*accountId*:thinggroup/*groupName*) and CognitoId (*region*:*id*).

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DetachSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Disassociates a Device Defender security profile from a thing group or from this account.

Requires permission to access the DetachSecurityProfile action.

## Request Syntax

```
DELETE /security-profiles/securityProfileName/targets?
securityProfileTargetArn=securityProfileTargetArn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### securityProfileName

The security profile that is detached.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

### securityProfileTargetArn

The ARN of the thing group from which the security profile is detached.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DetachThingPrincipal

Service: AWS IoT

Detaches the specified principal from the specified thing. A principal can be X.509 certificates, IAM users, groups, and roles, Amazon Cognito identities or federated identities.

> **Note**
>
> This call is asynchronous. It might take several seconds for the detachment to propagate.

Requires permission to access the DetachThingPrincipal action.

## Request Syntax

```
DELETE /things/thingName/principals HTTP/1.1
x-amzn-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

**principal**

If the principal is a certificate, this value must be ARN of the certificate. If the principal is an Amazon Cognito identity, this value must be the ID of the Amazon Cognito identity.

Required: Yes

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DisableTopicRule

Service: AWS IoT

Disables the rule.

Requires permission to access the DisableTopicRule action.

## Request Syntax

```
POST /rules/ruleName/disable HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ruleName**

The name of the rule to disable.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DisassociateSbomFromPackageVersion

Service: AWS IoT

Disassociates the selected software bill of materials (SBOM) from a specific software package version.

Requires permission to access the DisassociateSbomWithPackageVersion action.

## Request Syntax

```
DELETE /packages/packageName/versions/versionName/sbom?clientToken=clientToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**clientToken**

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

**packageName**

The name of the new software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**versionName**

The name of the new package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# EnableTopicRule

Service: AWS IoT

Enables the rule.

Requires permission to access the EnableTopicRule action.

## Request Syntax

```
POST /rules/ruleName/enable HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ruleName**

The name of the topic rule to enable.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetBehaviorModelTrainingSummaries

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Returns a Device Defender's ML Detect Security Profile training model's status.

Requires permission to access the GetBehaviorModelTrainingSummaries action.

## Request Syntax

```
GET /behavior-model-training/summaries?
maxResults=maxResults&nextToken=nextToken&securityProfileName=securityProfileName
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time. The default is 10.

Valid Range: Minimum value of 1. Maximum value of 10.

**nextToken**

The token for the next set of results.

**securityProfileName**

The name of the security profile.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "summaries": [
      {
         "behaviorName": "string",
         "datapointsCollectionPercentage": number,
         "lastModelRefreshDate": number,
         "modelStatus": "string",
         "securityProfileName": "string",
         "trainingDataCollectionStartDate": number
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**summaries**

A list of all ML Detect behaviors and their model status for a given Security Profile.

Type: Array of BehaviorModelTrainingSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetBucketsAggregation

Service: AWS IoT

Aggregates on indexed data with search queries pertaining to particular fields.

Requires permission to access the GetBucketsAggregation action.

## Request Syntax

```
POST /indices/buckets HTTP/1.1
Content-type: application/json

{
   "aggregationField": "string",
   "bucketsAggregationType": {
      "termsAggregation": {
         "maxBuckets": number
      }
   },
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**aggregationField**

The aggregation field.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**bucketsAggregationType**

The basic control of the response shape and the bucket aggregation type to perform.

Type: BucketsAggregationType object

Required: Yes

**indexName**

The name of the index to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**queryString**

The search query string.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The version of the query.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
```

```
   "buckets": [
      {
         "count": number,
         "keyValue": "string"
      }
   ],
   "totalCount": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**buckets**

The main part of the response with a list of buckets. Each bucket contains a `keyValue` and a `count`.

`keyValue`: The aggregation field value counted for the particular bucket.

`count`: The number of documents that have that value.

Type: Array of Bucket objects

**totalCount**

The total number of things that fit the query string criteria.

Type: Integer

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidAggregationException**

The aggregation is invalid.

HTTP Status Code: 400

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetCardinality

Service: AWS IoT

Returns the approximate count of unique values that match the query.

Requires permission to access the GetCardinality action.

## Request Syntax

```
POST /indices/cardinality HTTP/1.1
Content-type: application/json

{
   "aggregationField": "string",
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**aggregationField**

The field to aggregate.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**indexName**

The name of the index to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**queryString**

The search query string.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The query version.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "cardinality": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**cardinality**

The approximate count of unique values that match the query.

Type: Integer

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidAggregationException**

The aggregation is invalid.

HTTP Status Code: 400

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetCommand

Service: AWS IoT

Gets information about the specified command.

## Request Syntax

```
GET /commands/commandId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### commandId

The unique identifier of the command for which you want to retrieve information.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "commandArn": "string",
   "commandId": "string",
   "createdAt": number,
   "deprecated": boolean,
   "description": "string",
   "displayName": "string",
   "lastUpdatedAt": number,
   "mandatoryParameters": [
      {
```

```
         "defaultValue": {
            "B": boolean,
            "BIN": blob,
            "D": number,
            "I": number,
            "L": number,
            "S": "string",
            "UL": "string"
         },
         "description": "string",
         "name": "string",
         "type": "string",
         "value": {
            "B": boolean,
            "BIN": blob,
            "D": number,
            "I": number,
            "L": number,
            "S": "string",
            "UL": "string"
         },
         "valueConditions": [
            {
               "comparisonOperator": "string",
               "operand": {
                  "number": "string",
                  "numberRange": {
                     "max": "string",
                     "min": "string"
                  },
                  "numbers": [ "string" ],
                  "string": "string",
                  "strings": [ "string" ]
               }
            }
         ]
      }
   ],
   "namespace": "string",
   "payload": {
      "content": blob,
      "contentType": "string"
   },
   "payloadTemplate": "string",
```

```
   "pendingDeletion": boolean,
   "preprocessor": {
      "awsJsonSubstitution": {
         "outputFormat": "string"
      }
   },
   "roleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**commandArn**

The Amazon Resource Number (ARN) of the command. For example, `arn:aws:iot:<region>:<accountid>:command/<commandId>`

Type: String

**commandId**

The unique identifier of the command.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

**createdAt**

The timestamp, when the command was created.

Type: Timestamp

**deprecated**

Indicates whether the command has been deprecated.

Type: Boolean

**description**

A short text description of the command.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]*`

**displayName**

The user-friendly name in the console for the command.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `[^\p{C}]*`

**lastUpdatedAt**

The timestamp, when the command was last updated.

Type: Timestamp

**mandatoryParameters**

A list of parameters for the command created.

Type: Array of CommandParameter objects

Array Members: Minimum number of 1 item.

**namespace**

The namespace of the command.

Type: String

Valid Values: `AWS-IoT | AWS-IoT-FleetWise`

**payload**

The payload object that you provided for the command.

Type: CommandPayload object

**payloadTemplate**

The payload template for the dynamic command.

Type: String

Length Constraints: Maximum length of 32768.

**pendingDeletion**

Indicates whether the command is being deleted.

Type: Boolean

**preprocessor**

Configuration that determines how `payloadTemplate` is processed to generate command execution payload.

Type: CommandPreprocessor object

**roleArn**

The IAM role that you provided when creating the command with `AWS-IoT-FleetWise` as the namespace.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetCommandExecution

Service: AWS IoT

Gets information about the specific command execution on a single device.

## Request Syntax

```
GET /command-executions/executionId?includeResult=includeResult&targetArn=targetArn
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**executionId**

The unique identifier for the command execution. This information is returned as a response of the `StartCommandExecution` API request.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**includeResult**

Can be used to specify whether to include the result of the command execution in the `GetCommandExecution` API response. Your device can use this field to provide additional information about the command execution. You only need to specify this field when using the `AWS-IoT` namespace.

**targetArn**

The Amazon Resource Number (ARN) of the device on which the command execution is being performed.

Length Constraints: Maximum length of 2048.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "commandArn": "string",
   "completedAt": number,
   "createdAt": number,
   "executionId": "string",
   "executionTimeoutSeconds": number,
   "lastUpdatedAt": number,
   "parameters": {
      "string" : {
         "B": boolean,
         "BIN": blob,
         "D": number,
         "I": number,
         "L": number,
         "S": "string",
         "UL": "string"
      }
   },
   "result": {
      "string" : {
         "B": boolean,
         "BIN": blob,
         "S": "string"
      }
   },
   "startedAt": number,
   "status": "string",
   "statusReason": {
      "reasonCode": "string",
      "reasonDescription": "string"
   },
   "targetArn": "string",
   "timeToLive": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**commandArn**

The Amazon Resource Number (ARN) of the command. For example, arn:aws:iot:<region>:<accountid>:command/<commandId>

Type: String

**completedAt**

The timestamp, when the command execution was completed.

Type: Timestamp

**createdAt**

The timestamp, when the command execution was created.

Type: Timestamp

**executionId**

The unique identifier of the command execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

**executionTimeoutSeconds**

Specifies the amount of time in seconds that the device can take to finish a command execution. A timer starts when the command execution is created. If the command execution status is not set to another terminal state before the timer expires, it will automatically update to `TIMED_OUT`.

Type: Long

Valid Range: Minimum value of 1.

### lastUpdatedAt

The timestamp, when the command execution was last updated.

Type: Timestamp

### parameters

The list of parameters that the `StartCommandExecution` API used when performing the command on the device.

Type: String to CommandParameterValue object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 192.

Key Pattern: `^[.$a-zA-Z0-9_-]+$`

### result

The result value for the current state of the command execution. The status provides information about the progress of the command execution. The device can use the result field to share additional details about the execution such as a return value of a remote function call.

> **Note**
>
> If you use the `AWS-IoT-FleetWise` namespace, then this field is not applicable in the API response.

Type: String to CommandExecutionResult object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 32.

Key Pattern: `[a-zA-Z0-9_-]+`

### startedAt

The timestamp, when the command execution was started.

Type: Timestamp

**status**

The status of the command execution. After your devices receive the command and start performing the operations specified in the command, it can use the `UpdateCommandExecution` MQTT API to update the status information.

Type: String

Valid Values: `CREATED | IN_PROGRESS | SUCCEEDED | FAILED | REJECTED | TIMED_OUT`

**statusReason**

Your devices can use this parameter to provide additional context about the status of a command execution using a reason code and description.

Type: StatusReason object

**targetArn**

The Amazon Resource Number (ARN) of the device on which the command execution is being performed.

Type: String

Length Constraints: Maximum length of 2048.

**timeToLive**

The time to live (TTL) parameter that indicates the duration for which executions will be retained in your account. The default value is six months.

Type: Timestamp

## Errors

### InternalServerException

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetEffectivePolicies

Service: AWS IoT

Gets a list of the policies that have an effect on the authorization behavior of the specified device when it connects to the AWS IoT device gateway.

Requires permission to access the GetEffectivePolicies action.

## Request Syntax

```
POST /effective-policies?thingName=thingName HTTP/1.1
Content-type: application/json

{
   "cognitoIdentityPoolId": "string",
   "principal": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The thing name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Request Body

The request accepts the following data in JSON format.

### cognitoIdentityPoolId

The Cognito identity pool ID.

Type: String

Required: No

### principal

The principal. Valid principals are CertificateArn (arn:aws:iot:*region*:*accountId*:cert/*certificateId*), thingGroupArn (arn:aws:iot:*region*:*accountId*:thinggroup/*groupName*) and CognitoId (*region*:*id*).

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "effectivePolicies": [
      {
         "policyArn": "string",
         "policyDocument": "string",
         "policyName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### effectivePolicies

The effective policies.

Type: Array of EffectivePolicy objects

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetIndexingConfiguration

Service: AWS IoT

Gets the indexing configuration.

Requires permission to access the GetIndexingConfiguration action.

## Request Syntax

```
GET /indexing/config HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "thingGroupIndexingConfiguration": {
      "customFields": [
         {
            "name": "string",
            "type": "string"
         }
      ],
      "managedFields": [
         {
            "name": "string",
            "type": "string"
         }
      ],
      "thingGroupIndexingMode": "string"
   },
   "thingIndexingConfiguration": {
      "customFields": [
         {
```

```
            "name": "string",
            "type": "string"
         }
      ],
      "deviceDefenderIndexingMode": "string",
      "filter": {
         "connectivity": {
            "includeSocketInformation": [ "string" ]
         },
         "geoLocations": [
            {
               "name": "string",
               "order": "string"
            }
         ],
         "namedShadowNames": [ "string" ]
      },
      "managedFields": [
         {
            "name": "string",
            "type": "string"
         }
      ],
      "namedShadowIndexingMode": "string",
      "thingConnectivityIndexingMode": "string",
      "thingIndexingMode": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**thingGroupIndexingConfiguration**

The index configuration.

Type: ThingGroupIndexingConfiguration object

**thingIndexingConfiguration**

Thing indexing configuration.

Type: ThingIndexingConfiguration object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetJobDocument

Service: AWS IoT

Gets a job document.

Requires permission to access the GetJobDocument action.

## Request Syntax

```
GET /jobs/jobId/job-document?beforeSubstitution=beforeSubstitution HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**beforeSubstitution**

Provides a view of the job document before and after the substitution parameters have been resolved with their exact values.

**jobId**

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "document": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**document**

The job document content.

Type: String

Length Constraints: Maximum length of 32768.

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetLoggingOptions

Service: AWS IoT

Gets the logging options.

NOTE: use of this command is not recommended. Use `GetV2LoggingOptions` instead.

Requires permission to access the GetLoggingOptions action.

## Request Syntax

```
GET /loggingOptions HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "logLevel": "string",
   "roleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**logLevel**

The logging level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

**roleArn**

The ARN of the IAM role that grants access.

Type: String

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetOTAUpdate

Service: AWS IoT

Gets an OTA update.

Requires permission to access the GetOTAUpdate action.

## Request Syntax

```
GET /otaUpdates/otaUpdateId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### otaUpdateId

The OTA update ID.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "otaUpdateInfo": {
      "additionalParameters": {
         "string" : "string"
      },
      "awsIotJobArn": "string",
      "awsIotJobId": "string",
      "awsJobExecutionsRolloutConfig": {
```

```
         "exponentialRate": {
            "baseRatePerMinute": number,
            "incrementFactor": number,
            "rateIncreaseCriteria": {
               "numberOfNotifiedThings": number,
               "numberOfSucceededThings": number
            }
         },
         "maximumPerMinute": number
      },
      "awsJobPresignedUrlConfig": {
         "expiresInSec": number
      },
      "creationDate": number,
      "description": "string",
      "errorInfo": {
         "code": "string",
         "message": "string"
      },
      "lastModifiedDate": number,
      "otaUpdateArn": "string",
      "otaUpdateFiles": [
         {
            "attributes": {
               "string" : "string"
            },
            "codeSigning": {
               "awsSignerJobId": "string",
               "customCodeSigning": {
                  "certificateChain": {
                     "certificateName": "string",
                     "inlineDocument": "string"
                  },
                  "hashAlgorithm": "string",
                  "signature": {
                     "inlineDocument": blob
                  },
                  "signatureAlgorithm": "string"
               },
               "startSigningJobParameter": {
                  "destination": {
                     "s3Destination": {
                        "bucket": "string",
                        "prefix": "string"
```

```
                    }
                },
                "signingProfileName": "string",
                "signingProfileParameter": {
                    "certificateArn": "string",
                    "certificatePathOnDevice": "string",
                    "platform": "string"
                }
            }
        },
        "fileLocation": {
            "s3Location": {
                "bucket": "string",
                "key": "string",
                "version": "string"
            },
            "stream": {
                "fileId": number,
                "streamId": "string"
            }
        },
        "fileName": "string",
        "fileType": number,
        "fileVersion": "string"
    }
  ],
  "otaUpdateId": "string",
  "otaUpdateStatus": "string",
  "protocols": [ "string" ],
  "targets": [ "string" ],
  "targetSelection": "string"
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### otaUpdateInfo

The OTA update info.

Type: OTAUpdateInfo object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPackage

Service: AWS IoT

Gets information about the specified software package.

Requires permission to access the GetPackage action.

## Request Syntax

```
GET /packages/packageName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### packageName

The name of the target software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "defaultVersionName": "string",
   "description": "string",
   "lastModifiedDate": number,
   "packageArn": "string",
   "packageName": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The date the package was created.

Type: Timestamp

**defaultVersionName**

The name of the default package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

**description**

The package description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

**lastModifiedDate**

The date when the package was last updated.

Type: Timestamp

**packageArn**

The ARN for the package.

Type: String

### packageName

The name of the software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPackageConfiguration

Service: AWS IoT

Gets information about the specified software package's configuration.

Requires permission to access the GetPackageConfiguration action.

## Request Syntax

```
GET /package-configuration HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "versionUpdateByJobsConfig": {
      "enabled": boolean,
      "roleArn": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**versionUpdateByJobsConfig**

The version that is associated to a specific job.

Type: VersionUpdateByJobsConfig object

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPackageVersion

Service: AWS IoT

Gets information about the specified package version.

Requires permission to access the GetPackageVersion action.

## Request Syntax

```
GET /packages/packageName/versions/versionName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**packageName**

The name of the associated package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**versionName**

The name of the target package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "artifact": {
      "s3Location": {
         "bucket": "string",
         "key": "string",
         "version": "string"
      }
   },
   "attributes": {
      "string" : "string"
   },
   "creationDate": number,
   "description": "string",
   "errorReason": "string",
   "lastModifiedDate": number,
   "packageName": "string",
   "packageVersionArn": "string",
   "recipe": "string",
   "sbom": {
      "s3Location": {
         "bucket": "string",
         "key": "string",
         "version": "string"
      }
   },
   "sbomValidationStatus": "string",
   "status": "string",
   "versionName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### artifact

The various components that make up a software package version.

Type: PackageVersionArtifact object

**attributes**

Metadata that were added to the package version that can be used to define a package version's configuration.

Type: String to string map

Key Length Constraints: Minimum length of 1.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

**creationDate**

The date when the package version was created.

Type: Timestamp

**description**

The package version description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

**errorReason**

Error reason for a package version failure during creation or update.

Type: String

**lastModifiedDate**

The date when the package version was last updated.

Type: Timestamp

**packageName**

The name of the software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

**packageVersionArn**

The ARN for the package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

**recipe**

The inline job document associated with a software package version used for a quick job deployment.

Type: String

Length Constraints: Maximum length of 3072.

**sbom**

The software bill of materials for a software package version.

Type: Sbom object

**sbomValidationStatus**

The status of the validation for a new software bill of materials added to a software package version.

Type: String

Valid Values: `IN_PROGRESS | FAILED | SUCCEEDED`

**status**

The status associated to the package version. For more information, see Package version lifecycle.

Type: String

Valid Values: `DRAFT | PUBLISHED | DEPRECATED`

**versionName**

The name of the package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPercentiles

Service: AWS IoT

Groups the aggregated values that match the query into percentile groupings. The default percentile groupings are: 1,5,25,50,75,95,99, although you can specify your own when you call `GetPercentiles`. This function returns a value for each percentile group specified (or the default percentile groupings). The percentile group "1" contains the aggregated field value that occurs in approximately one percent of the values that match the query. The percentile group "5" contains the aggregated field value that occurs in approximately five percent of the values that match the query, and so on. The result is an approximation, the more values that match the query, the more accurate the percentile values.

Requires permission to access the GetPercentiles action.

## Request Syntax

```
POST /indices/percentiles HTTP/1.1
Content-type: application/json

{
   "aggregationField": "string",
   "indexName": "string",
   "percents": [ number ],
   "queryString": "string",
   "queryVersion": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### aggregationField

The field to aggregate.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**indexName**

The name of the index to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**percents**

The percentile groups returned.

Type: Array of doubles

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

**queryString**

The search query string.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The query version.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "percentiles": [
      {
         "percent": number,
         "value": number
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**percentiles**

The percentile values of the aggregated fields.

Type: Array of PercentPair objects

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidAggregationException**

The aggregation is invalid.

HTTP Status Code: 400

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPolicy

Service: AWS IoT

Gets information about the specified policy with the policy document of the default version.

Requires permission to access the GetPolicy action.

## Request Syntax

```
GET /policies/policyName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The name of the policy.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "defaultVersionId": "string",
   "generationId": "string",
   "lastModifiedDate": number,
   "policyArn": "string",
   "policyDocument": "string",
```

```
    "policyName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The date the policy was created.

Type: Timestamp

**defaultVersionId**

The default policy version ID.

Type: String

Pattern: `[0-9]+`

**generationId**

The generation ID of the policy.

Type: String

**lastModifiedDate**

The date the policy was last modified.

Type: Timestamp

**policyArn**

The policy ARN.

Type: String

**policyDocument**

The JSON document that describes the policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

**policyName**

The policy name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPolicyVersion

Service: AWS IoT

Gets information about the specified policy version.

Requires permission to access the GetPolicyVersion action.

## Request Syntax

```
GET /policies/policyName/version/policyVersionId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**policyName**

The name of the policy.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

**policyVersionId**

The policy version ID.

Pattern: `[0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "creationDate": number,
   "generationId": "string",
   "isDefaultVersion": boolean,
   "lastModifiedDate": number,
   "policyArn": "string",
   "policyDocument": "string",
   "policyName": "string",
   "policyVersionId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**creationDate**

The date the policy was created.

Type: Timestamp

**generationId**

The generation ID of the policy version.

Type: String

**isDefaultVersion**

Specifies whether the policy version is the default.

Type: Boolean

**lastModifiedDate**

The date the policy was last modified.

Type: Timestamp

**policyArn**

The policy ARN.

Type: String

**policyDocument**

The JSON document that describes the policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

**policyName**

The policy name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

**policyVersionId**

The policy version ID.

Type: String

Pattern: `[0-9]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetRegistrationCode

Service: AWS IoT

Gets a registration code used to register a CA certificate with AWS IoT.

AWS IoT will create a registration code as part of this API call if the registration code doesn't exist or has been deleted. If you already have a registration code, this API call will return the same registration code.

Requires permission to access the GetRegistrationCode action.

## Request Syntax

```
GET /registrationcode HTTP/1.1
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "registrationCode": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**registrationCode**

The CA certificate registration code.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetStatistics

Service: AWS IoT

Returns the count, average, sum, minimum, maximum, sum of squares, variance, and standard deviation for the specified aggregated field. If the aggregation field is of type `String`, only the count statistic is returned.

Requires permission to access the GetStatistics action.

## Request Syntax

```
POST /indices/statistics HTTP/1.1
Content-type: application/json

{
   "aggregationField": "string",
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**aggregationField**

The aggregation field name.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**indexName**

The name of the index to search. The default value is `AWS_Things`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**queryString**

The query used to search. You can specify "*" for the query string to get the count of all indexed things in your AWS account.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The version of the query used to search.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "statistics": {
      "average": number,
      "count": number,
      "maximum": number,
      "minimum": number,
      "stdDeviation": number,
      "sum": number,
      "sumOfSquares": number,
      "variance": number
   }
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**statistics**

The statistics returned by the Fleet Indexing service based on the query and aggregation field.

Type: Statistics object

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidAggregationException**

The aggregation is invalid.

HTTP Status Code: 400

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetThingConnectivityData

Service: AWS IoT

Retrieves the live connectivity status per device. If a device has never connected to IoT Core or was disconnected for more than 1 hour before fleet indexing's `thingConnectivityIndexingMode` was enabled, the response will have the `connected` field set to `false` with no additional session details.

## Request Syntax

```
POST /things/thingName/connectivity-data HTTP/1.1
Content-type: application/json

{
   "includeSocketInformation": boolean
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The name of your IoT thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### includeSocketInformation

Specifies if socket information (sourcePort, targetPort, sourceIp, targetIp, vpcEndpointId) should be included in the GetThingConnectivityData response. Set to `true` to include socket information. Set to `false` to omit socket information. By default, this is set to `false`.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "cleanSession": boolean,
   "clientId": "string",
   "connected": boolean,
   "disconnectReason": "string",
   "keepAliveDuration": number,
   "sessionExpiry": number,
   "sourceIp": "string",
   "sourcePort": number,
   "targetIp": "string",
   "targetPort": number,
   "thingName": "string",
   "timestamp": number,
   "vpcEndpointId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**cleanSession**

Indicates whether the client is using a clean session. Returns `true` for clean sessions.

Type: Boolean

**clientId**

The unique identifier of the MQTT client.

Type: String

**connected**

A Boolean that indicates the connectivity status.

Type: Boolean

**disconnectReason**

The reason that the client is disconnected.

Type: String

Valid Values: `AUTH_ERROR | CLIENT_INITIATED_DISCONNECT | CLIENT_ERROR | CONNECTION_LOST | DUPLICATE_CLIENTID | FORBIDDEN_ACCESS | MQTT_KEEP_ALIVE_TIMEOUT | SERVER_ERROR | SERVER_INITIATED_DISCONNECT | API_INITIATED_DISCONNECT | THROTTLED | WEBSOCKET_TTL_EXPIRATION | CUSTOMAUTH_TTL_EXPIRATION | UNKNOWN | NONE`

**keepAliveDuration**

The keep-alive interval in seconds that the client specified when establishing the connection.

Type: Integer

**sessionExpiry**

The session expiry interval in seconds for the MQTT client connection. This value indicates how long the session will remain active after the client disconnects.

Type: Long

**sourceIp**

The IP address of the client that initiated the connection.

Type: String

**sourcePort**

The client's source port.

Type: Integer

**targetIp**

The IP address of the AWS IoT Core endpoint that the client connected to.

Type: String

**targetPort**

The port number of the AWS IoT Core endpoint that the client connected to.

Type: Integer

**thingName**

The name of your IoT thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**timestamp**

The timestamp of when the device connected or disconnected.

Type: Timestamp

**vpcEndpointId**

The ID of the VPC endpoint. Present for clients connected to AWS IoT Core via a VPC endpoint.

Type: String

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetTopicRule

Service: AWS IoT

Gets information about the rule.

Requires permission to access the GetTopicRule action.

## Request Syntax

```
GET /rules/ruleName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### ruleName

The name of the rule.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "rule": {
      "actions": [
         {
            "cloudwatchAlarm": {
               "alarmName": "string",
               "roleArn": "string",
               "stateReason": "string",
```

```
            "stateValue": "string"
         },
         "cloudwatchLogs": {
            "batchMode": boolean,
            "logGroupName": "string",
            "roleArn": "string"
         },
         "cloudwatchMetric": {
            "metricName": "string",
            "metricNamespace": "string",
            "metricTimestamp": "string",
            "metricUnit": "string",
            "metricValue": "string",
            "roleArn": "string"
         },
         "dynamoDB": {
            "hashKeyField": "string",
            "hashKeyType": "string",
            "hashKeyValue": "string",
            "operation": "string",
            "payloadField": "string",
            "rangeKeyField": "string",
            "rangeKeyType": "string",
            "rangeKeyValue": "string",
            "roleArn": "string",
            "tableName": "string"
         },
         "dynamoDBv2": {
            "putItem": {
               "tableName": "string"
            },
            "roleArn": "string"
         },
         "elasticsearch": {
            "endpoint": "string",
            "id": "string",
            "index": "string",
            "roleArn": "string",
            "type": "string"
         },
         "firehose": {
            "batchMode": boolean,
            "deliveryStreamName": "string",
            "roleArn": "string",
```

```
            "separator": "string"
         },
         "http": {
            "auth": {
               "sigv4": {
                  "roleArn": "string",
                  "serviceName": "string",
                  "signingRegion": "string"
               }
            },
            "batchConfig": {
               "batchAcrossTopics": boolean,
               "maxBatchOpenMs": number,
               "maxBatchSize": number,
               "maxBatchSizeBytes": number
            },
            "confirmationUrl": "string",
            "enableBatching": boolean,
            "headers": [
               {
                  "key": "string",
                  "value": "string"
               }
            ],
            "url": "string"
         },
         "iotAnalytics": {
            "batchMode": boolean,
            "channelArn": "string",
            "channelName": "string",
            "roleArn": "string"
         },
         "iotEvents": {
            "batchMode": boolean,
            "inputName": "string",
            "messageId": "string",
            "roleArn": "string"
         },
         "iotSiteWise": {
            "putAssetPropertyValueEntries": [
               {
                  "assetId": "string",
                  "entryId": "string",
                  "propertyAlias": "string",
```

```
                "propertyId": "string",
                "propertyValues": [
                   {
                      "quality": "string",
                      "timestamp": {
                         "offsetInNanos": "string",
                         "timeInSeconds": "string"
                      },
                      "value": {
                         "booleanValue": "string",
                         "doubleValue": "string",
                         "integerValue": "string",
                         "stringValue": "string"
                      }
                   }
                ]
             }
          ],
          "roleArn": "string"
       },
       "kafka": {
          "clientProperties": {
             "string" : "string"
          },
          "destinationArn": "string",
          "headers": [
             {
                "key": "string",
                "value": "string"
             }
          ],
          "key": "string",
          "partition": "string",
          "topic": "string"
       },
       "kinesis": {
          "partitionKey": "string",
          "roleArn": "string",
          "streamName": "string"
       },
       "lambda": {
          "functionArn": "string"
       },
       "location": {
```

```
            "deviceId": "string",
            "latitude": "string",
            "longitude": "string",
            "roleArn": "string",
            "timestamp": {
               "unit": "string",
               "value": "string"
            },
            "trackerName": "string"
         },
         "openSearch": {
            "endpoint": "string",
            "id": "string",
            "index": "string",
            "roleArn": "string",
            "type": "string"
         },
         "republish": {
            "headers": {
               "contentType": "string",
               "correlationData": "string",
               "messageExpiry": "string",
               "payloadFormatIndicator": "string",
               "responseTopic": "string",
               "userProperties": [
                  {
                     "key": "string",
                     "value": "string"
                  }
               ]
            },
            "qos": number,
            "roleArn": "string",
            "topic": "string"
         },
         "s3": {
            "bucketName": "string",
            "cannedAcl": "string",
            "key": "string",
            "roleArn": "string"
         },
         "salesforce": {
            "token": "string",
            "url": "string"
```

```
            },
            "sns": {
               "messageFormat": "string",
               "roleArn": "string",
               "targetArn": "string"
            },
            "sqs": {
               "queueUrl": "string",
               "roleArn": "string",
               "useBase64": boolean
            },
            "stepFunctions": {
               "executionNamePrefix": "string",
               "roleArn": "string",
               "stateMachineName": "string"
            },
            "timestream": {
               "databaseName": "string",
               "dimensions": [
                  {
                     "name": "string",
                     "value": "string"
                  }
               ],
               "roleArn": "string",
               "tableName": "string",
               "timestamp": {
                  "unit": "string",
                  "value": "string"
               }
            }
         }
      ],
      "awsIotSqlVersion": "string",
      "createdAt": number,
      "description": "string",
      "errorAction": {
         "cloudwatchAlarm": {
            "alarmName": "string",
            "roleArn": "string",
            "stateReason": "string",
            "stateValue": "string"
         },
         "cloudwatchLogs": {
```

```
            "batchMode": boolean,
            "logGroupName": "string",
            "roleArn": "string"
         },
         "cloudwatchMetric": {
            "metricName": "string",
            "metricNamespace": "string",
            "metricTimestamp": "string",
            "metricUnit": "string",
            "metricValue": "string",
            "roleArn": "string"
         },
         "dynamoDB": {
            "hashKeyField": "string",
            "hashKeyType": "string",
            "hashKeyValue": "string",
            "operation": "string",
            "payloadField": "string",
            "rangeKeyField": "string",
            "rangeKeyType": "string",
            "rangeKeyValue": "string",
            "roleArn": "string",
            "tableName": "string"
         },
         "dynamoDBv2": {
            "putItem": {
               "tableName": "string"
            },
            "roleArn": "string"
         },
         "elasticsearch": {
            "endpoint": "string",
            "id": "string",
            "index": "string",
            "roleArn": "string",
            "type": "string"
         },
         "firehose": {
            "batchMode": boolean,
            "deliveryStreamName": "string",
            "roleArn": "string",
            "separator": "string"
         },
         "http": {
```

```
            "auth": {
               "sigv4": {
                  "roleArn": "string",
                  "serviceName": "string",
                  "signingRegion": "string"
               }
            },
            "batchConfig": {
               "batchAcrossTopics": boolean,
               "maxBatchOpenMs": number,
               "maxBatchSize": number,
               "maxBatchSizeBytes": number
            },
            "confirmationUrl": "string",
            "enableBatching": boolean,
            "headers": [
               {
                  "key": "string",
                  "value": "string"
               }
            ],
            "url": "string"
         },
         "iotAnalytics": {
            "batchMode": boolean,
            "channelArn": "string",
            "channelName": "string",
            "roleArn": "string"
         },
         "iotEvents": {
            "batchMode": boolean,
            "inputName": "string",
            "messageId": "string",
            "roleArn": "string"
         },
         "iotSiteWise": {
            "putAssetPropertyValueEntries": [
               {
                  "assetId": "string",
                  "entryId": "string",
                  "propertyAlias": "string",
                  "propertyId": "string",
                  "propertyValues": [
                     {
```

```
                    "quality": "string",
                    "timestamp": {
                       "offsetInNanos": "string",
                       "timeInSeconds": "string"
                    },
                    "value": {
                       "booleanValue": "string",
                       "doubleValue": "string",
                       "integerValue": "string",
                       "stringValue": "string"
                    }
                 }
              ]
           }
        ],
        "roleArn": "string"
     },
     "kafka": {
        "clientProperties": {
           "string" : "string"
        },
        "destinationArn": "string",
        "headers": [
           {
              "key": "string",
              "value": "string"
           }
        ],
        "key": "string",
        "partition": "string",
        "topic": "string"
     },
     "kinesis": {
        "partitionKey": "string",
        "roleArn": "string",
        "streamName": "string"
     },
     "lambda": {
        "functionArn": "string"
     },
     "location": {
        "deviceId": "string",
        "latitude": "string",
        "longitude": "string",
```

```
            "roleArn": "string",
            "timestamp": {
               "unit": "string",
               "value": "string"
            },
            "trackerName": "string"
         },
         "openSearch": {
            "endpoint": "string",
            "id": "string",
            "index": "string",
            "roleArn": "string",
            "type": "string"
         },
         "republish": {
            "headers": {
               "contentType": "string",
               "correlationData": "string",
               "messageExpiry": "string",
               "payloadFormatIndicator": "string",
               "responseTopic": "string",
               "userProperties": [
                  {
                     "key": "string",
                     "value": "string"
                  }
               ]
            },
            "qos": number,
            "roleArn": "string",
            "topic": "string"
         },
         "s3": {
            "bucketName": "string",
            "cannedAcl": "string",
            "key": "string",
            "roleArn": "string"
         },
         "salesforce": {
            "token": "string",
            "url": "string"
         },
         "sns": {
            "messageFormat": "string",
```

```
            "roleArn": "string",
            "targetArn": "string"
         },
         "sqs": {
            "queueUrl": "string",
            "roleArn": "string",
            "useBase64": boolean
         },
         "stepFunctions": {
            "executionNamePrefix": "string",
            "roleArn": "string",
            "stateMachineName": "string"
         },
         "timestream": {
            "databaseName": "string",
            "dimensions": [
               {
                  "name": "string",
                  "value": "string"
               }
            ],
            "roleArn": "string",
            "tableName": "string",
            "timestamp": {
               "unit": "string",
               "value": "string"
            }
         }
      },
      "ruleDisabled": boolean,
      "ruleName": "string",
      "sql": "string"
   },
   "ruleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**rule**

The rule.

Type: TopicRule object

**ruleArn**

The rule ARN.

Type: String

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetTopicRuleDestination

Service: AWS IoT

Gets information about a topic rule destination.

Requires permission to access the GetTopicRuleDestination action.

## Request Syntax

```
GET /destinations/arn+ HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### arn

The ARN of the topic rule destination.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "topicRuleDestination": {
      "arn": "string",
      "createdAt": number,
      "httpUrlProperties": {
         "confirmationUrl": "string"
      },
      "lastUpdatedAt": number,
      "status": "string",
      "statusReason": "string",
      "vpcProperties": {
```

```
            "roleArn": "string",
            "securityGroups": [ "string" ],
            "subnetIds": [ "string" ],
            "vpcId": "string"
        }
    }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**topicRuleDestination**

The topic rule destination.

Type: TopicRuleDestination object

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetV2LoggingOptions

Service: AWS IoT

Gets the fine grained logging options.

Requires permission to access the GetV2LoggingOptions action.

## Request Syntax

```
GET /v2LoggingOptions?verbose=verbose HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### verbose

The flag is used to get all the event types and their respective configuration that event-based logging supports.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "defaultLogLevel": "string",
   "disableAllLogs": boolean,
   "eventConfigurations": [
      {
         "eventType": "string",
         "logDestination": "string",
         "logLevel": "string"
      }
   ],
   "roleArn": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**defaultLogLevel**

The default log level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

**disableAllLogs**

Disables all logs.

Type: Boolean

**eventConfigurations**

The list of event configurations that override account-level logging.

Type: Array of LogEventConfiguration objects

**roleArn**

The IAM role ARN AWS IoT uses to write to your CloudWatch logs.

Type: String

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**NotConfiguredException**

The resource is not configured.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListActiveViolations

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists the active violations for a given Device Defender security profile.

Requires permission to access the ListActiveViolations action.

## Request Syntax

```
GET /active-violations?
behaviorCriteriaType=behaviorCriteriaType&listSuppressedAlerts=listSuppressedAlerts&maxResults=
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**behaviorCriteriaType**

The criteria for a behavior.

Valid Values: `STATIC | STATISTICAL | MACHINE_LEARNING`

**listSuppressedAlerts**

A list of all suppressed alerts.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**securityProfileName**

The name of the Device Defender security profile for which violations are listed.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**thingName**

The name of the thing whose active violations are listed.

Length Constraints: Minimum length of 1. Maximum length of 128.

**verificationState**

The verification state of the violation (detect alarm).

Valid Values: `FALSE_POSITIVE | BENIGN_POSITIVE | TRUE_POSITIVE | UNKNOWN`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "activeViolations": [
      {
         "behavior": {
            "criteria": {
               "comparisonOperator": "string",
               "consecutiveDatapointsToAlarm": number,
               "consecutiveDatapointsToClear": number,
               "durationSeconds": number,
               "mlDetectionConfig": {
                  "confidenceLevel": "string"
               },
               "statisticalThreshold": {
```

```
                  "statistic": "string"
               },
               "value": {
                  "cidrs": [ "string" ],
                  "count": number,
                  "number": number,
                  "numbers": [ number ],
                  "ports": [ number ],
                  "strings": [ "string" ]
               }
            },
            "exportMetric": boolean,
            "metric": "string",
            "metricDimension": {
               "dimensionName": "string",
               "operator": "string"
            },
            "name": "string",
            "suppressAlerts": boolean
         },
         "lastViolationTime": number,
         "lastViolationValue": {
            "cidrs": [ "string" ],
            "count": number,
            "number": number,
            "numbers": [ number ],
            "ports": [ number ],
            "strings": [ "string" ]
         },
         "securityProfileName": "string",
         "thingName": "string",
         "verificationState": "string",
         "verificationStateDescription": "string",
         "violationEventAdditionalInfo": {
            "confidenceLevel": "string"
         },
         "violationId": "string",
         "violationStartTime": number
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**activeViolations**

The list of active violations.

Type: Array of ActiveViolation objects

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAttachedPolicies

Service: AWS IoT

Lists the policies attached to the specified thing group.

Requires permission to access the ListAttachedPolicies action.

## Request Syntax

```
POST /attached-policies/target?marker=marker&pageSize=pageSize&recursive=recursive
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**marker**

The token to retrieve the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The maximum number of results to be returned per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**recursive**

When true, recursively list attached policies.

**target**

The group or principal for which the policies will be listed. Valid principals are CertificateArn (arn:aws:iot:*region*:*accountId*:cert/*certificateId*), thingGroupArn (arn:aws:iot:*region*:*accountId*:thinggroup/*groupName*) and CognitoId (*region*:*id*).

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextMarker": "string",
   "policies": [
      {
         "policyArn": "string",
         "policyName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

The token to retrieve the next set of results, or ``null`` if there are no more results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**policies**

The policies.

Type: Array of Policy objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAuditFindings

Service: AWS IoT

Lists the findings (results) of a Device Defender audit or of the audits performed during a specified time period. (Findings are retained for 90 days.)

Requires permission to access the ListAuditFindings action.

## Request Syntax

```
POST /audit/findings HTTP/1.1
Content-type: application/json

{
   "checkName": "string",
   "endTime": number,
   "listSuppressedFindings": boolean,
   "maxResults": number,
   "nextToken": "string",
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
      },
      "roleAliasArn": "string"
   },
   "startTime": number,
   "taskId": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**checkName**

A filter to limit results to the findings for the specified audit check.

Type: String

Required: No

**endTime**

A filter to limit results to those found before the specified time. You must specify either the startTime and endTime or the taskId, but not both.

Type: Timestamp

Required: No

**listSuppressedFindings**

Boolean flag indicating whether only the suppressed findings or the unsuppressed findings should be listed. If this parameter isn't provided, the response will list both suppressed and unsuppressed findings.

Type: Boolean

Required: No

**maxResults**

The maximum number of results to return at one time. The default is 25.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

**nextToken**

The token for the next set of results.

Type: String

Required: No

**resourceIdentifier**

Information identifying the noncompliant resource.

Type: ResourceIdentifier object

Required: No

**startTime**

A filter to limit results to those found after the specified time. You must specify either the startTime and endTime or the taskId, but not both.

Type: Timestamp

Required: No

**taskId**

A filter to limit results to the audit with the specified ID. You must specify either the taskId or the startTime and endTime, but not both.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "findings": [
      {
         "checkName": "string",
         "findingId": "string",
         "findingTime": number,
         "isSuppressed": boolean,
```

```
      "nonCompliantResource": {
         "additionalInfo": {
            "string" : "string"
         },
         "resourceIdentifier": {
            "account": "string",
            "caCertificateId": "string",
            "clientId": "string",
            "cognitoIdentityPoolId": "string",
            "deviceCertificateArn": "string",
            "deviceCertificateId": "string",
            "iamRoleArn": "string",
            "issuerCertificateIdentifier": {
               "issuerCertificateSerialNumber": "string",
               "issuerCertificateSubject": "string",
               "issuerId": "string"
            },
            "policyVersionIdentifier": {
               "policyName": "string",
               "policyVersionId": "string"
            },
            "roleAliasArn": "string"
         },
         "resourceType": "string"
      },
      "reasonForNonCompliance": "string",
      "reasonForNonComplianceCode": "string",
      "relatedResources": [
         {
            "additionalInfo": {
               "string" : "string"
            },
            "resourceIdentifier": {
               "account": "string",
               "caCertificateId": "string",
               "clientId": "string",
               "cognitoIdentityPoolId": "string",
               "deviceCertificateArn": "string",
               "deviceCertificateId": "string",
               "iamRoleArn": "string",
               "issuerCertificateIdentifier": {
                  "issuerCertificateSerialNumber": "string",
                  "issuerCertificateSubject": "string",
                  "issuerId": "string"
```

```
                },
                "policyVersionIdentifier": {
                   "policyName": "string",
                   "policyVersionId": "string"
                },
                "roleAliasArn": "string"
             },
             "resourceType": "string"
          }
       ],
       "severity": "string",
       "taskId": "string",
       "taskStartTime": number
    }
 ],
 "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**findings**

The findings (results) of the audit.

Type: Array of AuditFinding objects

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAuditMitigationActionsExecutions

Service: AWS IoT

Gets the status of audit mitigation action tasks that were executed.

Requires permission to access the ListAuditMitigationActionsExecutions action.

## Request Syntax

```
GET /audit/mitigationactions/executions?
actionStatus=actionStatus&findingId=findingId&maxResults=maxResults&nextToken=nextToken&taskId=
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**actionStatus**

Specify this filter to limit results to those with a specific status.

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED | SKIPPED | PENDING`

**findingId**

Specify this filter to limit results to those that were applied to a specific audit finding.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**taskId**

Specify this filter to limit results to actions for a specific audit mitigation actions task.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "actionsExecutions": [
      {
         "actionId": "string",
         "actionName": "string",
         "endTime": number,
         "errorCode": "string",
         "findingId": "string",
         "message": "string",
         "startTime": number,
         "status": "string",
         "taskId": "string"
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**actionsExecutions**

A set of task execution results based on the input parameters. Details include the mitigation action applied, start time, and task status.

Type: Array of AuditMitigationActionExecutionMetadata objects

**nextToken**

The token for the next set of results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAuditMitigationActionsTasks

Service: AWS IoT

Gets a list of audit mitigation action tasks that match the specified filters.

Requires permission to access the ListAuditMitigationActionsTasks action.

## Request Syntax

```
GET /audit/mitigationactions/tasks?
auditTaskId=auditTaskId&endTime=endTime&findingId=findingId&maxResults=maxResults&nextToken=nex
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**auditTaskId**

Specify this filter to limit results to tasks that were applied to results for a specific audit.

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

**endTime**

Specify this filter to limit results to tasks that were completed or canceled on or before a specific date and time.

Required: Yes

**findingId**

Specify this filter to limit results to tasks that were applied to a specific audit finding.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**startTime**

Specify this filter to limit results to tasks that began on or after a specific date and time.

Required: Yes

**taskStatus**

Specify this filter to limit results to tasks that are in a specific state.

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "tasks": [
      {
         "startTime": number,
         "taskId": "string",
         "taskStatus": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token for the next set of results.

Type: String

**tasks**

The collection of audit mitigation tasks that matched the filter criteria.

Type: Array of AuditMitigationActionsTaskMetadata objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAuditSuppressions

Service: AWS IoT

Lists your Device Defender audit listings.

Requires permission to access the ListAuditSuppressions action.

## Request Syntax

```
POST /audit/suppressions/list HTTP/1.1
Content-type: application/json

{
   "ascendingOrder": boolean,
   "checkName": "string",
   "maxResults": number,
   "nextToken": "string",
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
      },
      "roleAliasArn": "string"
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**ascendingOrder**

Determines whether suppressions are listed in ascending order by expiration date or not. If parameter isn't provided, `ascendingOrder=true`.

Type: Boolean

Required: No

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

Required: No

**maxResults**

The maximum number of results to return at one time. The default is 25.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

**nextToken**

The token for the next set of results.

Type: String

Required: No

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "suppressions": [
      {
         "checkName": "string",
         "description": "string",
         "expirationDate": number,
         "resourceIdentifier": {
            "account": "string",
            "caCertificateId": "string",
            "clientId": "string",
            "cognitoIdentityPoolId": "string",
            "deviceCertificateArn": "string",
            "deviceCertificateId": "string",
            "iamRoleArn": "string",
            "issuerCertificateIdentifier": {
               "issuerCertificateSerialNumber": "string",
               "issuerCertificateSubject": "string",
               "issuerId": "string"
            },
            "policyVersionIdentifier": {
               "policyName": "string",
               "policyVersionId": "string"
            },
            "roleAliasArn": "string"
         },
         "suppressIndefinitely": boolean
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**suppressions**

List of audit suppressions.

Type: Array of AuditSuppression objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAuditTasks

Service: AWS IoT

Lists the Device Defender audits that have been performed during a given time period.

Requires permission to access the ListAuditTasks action.

## Request Syntax

```
GET /audit/tasks?
endTime=endTime&maxResults=maxResults&nextToken=nextToken&startTime=startTime&taskStatus=taskSt
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**endTime**

The end of the time period.

Required: Yes

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**startTime**

The beginning of the time period. Audit information is retained for a limited time (90 days). Requesting a start time prior to what is retained results in an "InvalidRequestException".

Required: Yes

**taskStatus**

A filter to limit the output to audits with the specified completion status: can be one of "IN_PROGRESS", "COMPLETED", "FAILED", or "CANCELED".

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED`

**taskType**

A filter to limit the output to the specified type of audit: can be one of "ON_DEMAND_AUDIT_TASK" or "SCHEDULED__AUDIT_TASK".

Valid Values: `ON_DEMAND_AUDIT_TASK | SCHEDULED_AUDIT_TASK`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "tasks": [
      {
         "taskId": "string",
         "taskStatus": "string",
         "taskType": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**tasks**

The audits that were performed during the specified time period.

Type: Array of AuditTaskMetadata objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListAuthorizers

Service: AWS IoT

Lists the authorizers registered in your account.

Requires permission to access the ListAuthorizers action.

## Request Syntax

```
GET /authorizers/?
isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize&status=status HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Return the list of authorizers in ascending alphabetical order.

**marker**

A marker used to get the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**status**

The status of the list authorizers request.

Valid Values: `ACTIVE | INACTIVE`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authorizers": [
      {
         "authorizerArn": "string",
         "authorizerName": "string"
      }
   ],
   "nextMarker": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authorizers**

The authorizers.

Type: Array of AuthorizerSummary objects

**nextMarker**

A marker used to get the next set of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListBillingGroups

Service: AWS IoT

Lists the billing groups you have created.

Requires permission to access the ListBillingGroups action.

## Request Syntax

```
GET /billing-groups?
maxResults=maxResults&namePrefixFilter=namePrefixFilter&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**namePrefixFilter**

Limit the results to billing groups whose names have the given prefix.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "billingGroups": [
      {
         "groupArn": "string",
         "groupName": "string"
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**billingGroups**

The list of billing groups.

Type: Array of GroupNameAndArn objects

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCACertificates

Service: AWS IoT

Lists the CA certificates registered for your AWS account.

The results are paginated with a default page size of 25. You can use the returned marker to retrieve additional results.

Requires permission to access the ListCACertificates action.

## Request Syntax

```
GET /cacertificates?
isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize&templateName=templateName
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Determines the order of the results.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

**templateName**

The name of the provisioning template.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9A-Za-z_-]+$

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificates": [
      {
         "certificateArn": "string",
         "certificateId": "string",
         "creationDate": number,
         "status": "string"
      }
   ],
   "nextMarker": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificates**

The CA certificates registered in your AWS account.

Type: Array of CACertificate objects

**nextMarker**

The current position within the list of CA certificates.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCertificateProviders

Service: AWS IoT

Lists all your certificate providers in your AWS account.

Requires permission to access the ListCertificateProviders action.

## Request Syntax

```
GET /certificate-providers/?isAscendingOrder=ascendingOrder&nextToken=nextToken
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Returns the list of certificate providers in ascending alphabetical order.

**nextToken**

The token for the next set of results, or `null` if there are no more results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateProviders": [
      {
         "certificateProviderArn": "string",
```

```
            "certificateProviderName": "string"
        }
    ],
    "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateProviders**

The list of certificate providers in your AWS account.

Type: Array of CertificateProviderSummary objects

**nextToken**

The token for the next set of results, or `null` if there are no more results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCertificates

Service: AWS IoT

Lists the certificates registered in your AWS account.

The results are paginated with a default page size of 25. You can use the returned marker to retrieve additional results.

Requires permission to access the ListCertificates action.

## Request Syntax

```
GET /certificates?isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Specifies the order for results. If True, the results are returned in ascending order, based on the creation date.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificates": [
      {
         "certificateArn": "string",
         "certificateId": "string",
         "certificateMode": "string",
         "creationDate": number,
         "status": "string"
      }
   ],
   "nextMarker": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificates**

The descriptions of the certificates.

Type: Array of Certificate objects

**nextMarker**

The marker for the next set of results, or null if there are no additional results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCertificatesByCA

Service: AWS IoT

List the device certificates signed by the specified CA certificate.

Requires permission to access the ListCertificatesByCA action.

## Request Syntax

```
GET /certificates-by-ca/caCertificateId?
isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Specifies the order for results. If True, the results are returned in ascending order, based on the creation date.

**caCertificateId**

The ID of the CA certificate. This operation will list all registered device certificate that were signed by this CA certificate.

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificates": [
      {
         "certificateArn": "string",
         "certificateId": "string",
         "certificateMode": "string",
         "creationDate": number,
         "status": "string"
      }
   ],
   "nextMarker": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificates**

The device certificates signed by the specified CA certificate.

Type: Array of Certificate objects

**nextMarker**

The marker for the next set of results, or null if there are no additional results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCommandExecutions

Service: AWS IoT

List all command executions.

**Important**

- You must provide only the `startedTimeFilter` or the `completedTimeFilter` information. If you provide both time filters, the API will generate an error. You can use this information to retrieve a list of command executions within a specific timeframe.
- You must provide only the `commandArn` or the `thingArn` information depending on whether you want to list executions for a specific command or an IoT thing. If you provide both fields, the API will generate an error.

For more information about considerations for using this API, see List command executions in your account (CLI).

## Request Syntax

```
POST /command-executions?maxResults=maxResults&nextToken=nextToken HTTP/1.1
Content-type: application/json

{
   "commandArn": "string",
   "completedTimeFilter": {
      "after": "string",
      "before": "string"
   },
   "namespace": "string",
   "sortOrder": "string",
   "startedTimeFilter": {
      "after": "string",
      "before": "string"
   },
   "status": "string",
   "targetArn": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 100.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise `null` to receive the first set of results.

## Request Body

The request accepts the following data in JSON format.

**commandArn**

The Amazon Resource Number (ARN) of the command. You can use this information to list all command executions for a particular command.

Type: String

Required: No

**completedTimeFilter**

List all command executions that completed any time before or after the date and time that you specify. The date and time uses the format `yyyy-MM-dd'T'HH:mm`.

Type: TimeFilter object

Required: No

**namespace**

The namespace of the command.

Type: String

Valid Values: `AWS-IoT | AWS-IoT-FleetWise`

Required: No

**sortOrder**

Specify whether to list the command executions that were created in the ascending or descending order. By default, the API returns all commands in the descending order based on the start time or completion time of the executions, that are determined by the `startTimeFilter` and `completeTimeFilter` parameters.

Type: String

Valid Values: `ASCENDING | DESCENDING`

Required: No

**startedTimeFilter**

List all command executions that started any time before or after the date and time that you specify. The date and time uses the format `yyyy-MM-dd'T'HH:mm`.

Type: TimeFilter object

Required: No

**status**

List all command executions for the device that have a particular status. For example, you can filter the list to display only command executions that have failed or timed out.

Type: String

Valid Values: `CREATED | IN_PROGRESS | SUCCEEDED | FAILED | REJECTED | TIMED_OUT`

Required: No

**targetArn**

The Amazon Resource Number (ARN) of the target device. You can use this information to list all command executions for a particular device.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "commandExecutions": [
      {
         "commandArn": "string",
         "completedAt": number,
         "createdAt": number,
         "executionId": "string",
         "startedAt": number,
         "status": "string",
         "targetArn": "string"
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**commandExecutions**

The list of command executions.

Type: Array of CommandExecutionSummary objects

**nextToken**

The token to use to get the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCommands

Service: AWS IoT

List all commands in your account.

## Request Syntax

```
GET /commands?
commandParameterName=commandParameterName&maxResults=maxResults&namespace=namespace&nextToken=n
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**commandParameterName**

A filter that can be used to display the list of commands that have a specific command parameter name.

Length Constraints: Minimum length of 1. Maximum length of 192.

Pattern: `^[.$a-zA-Z0-9_-]+$`

**maxResults**

The maximum number of results to return in this operation. By default, the API returns up to a maximum of 25 results. You can override this default value to return up to a maximum of 100 results for this operation.

Valid Range: Minimum value of 1. Maximum value of 100.

**namespace**

The namespace of the command. By default, the API returns all commands that have been created for both `AWS-IoT` and `AWS-IoT-FleetWise` namespaces. You can override this default value if you want to return all commands that have been created only for a specific namespace.

Valid Values: `AWS-IoT | AWS-IoT-FleetWise`

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise `null` to receive the first set of results.

**sortOrder**

Specify whether to list the commands that you have created in the ascending or descending order. By default, the API returns all commands in the descending order based on the time that they were created.

Valid Values: `ASCENDING | DESCENDING`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "commands": [
      {
         "commandArn": "string",
         "commandId": "string",
         "createdAt": number,
         "deprecated": boolean,
         "displayName": "string",
         "lastUpdatedAt": number,
         "pendingDeletion": boolean
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**commands**

The list of commands.

Type: Array of CommandSummary objects

**nextToken**

The token to use to get the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListCustomMetrics

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists your Device Defender detect custom metrics.

Requires permission to access the ListCustomMetrics action.

## Request Syntax

```
GET /custom-metrics?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "metricNames": [ "string" ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**metricNames**

The name of the custom metric.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListDetectMitigationActionsExecutions

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists mitigation actions executions for a Device Defender ML Detect Security Profile.

Requires permission to access the ListDetectMitigationActionsExecutions action.

## Request Syntax

```
GET /detect/mitigationactions/executions?
endTime=endTime&maxResults=maxResults&nextToken=nextToken&startTime=startTime&taskId=taskId&thi
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**endTime**

The end of the time period for which ML Detect mitigation actions executions are returned.

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**startTime**

A filter to limit results to those found after the specified time. You must specify either the startTime and endTime or the taskId, but not both.

**taskId**

The unique identifier of the task.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**thingName**

The name of the thing whose mitigation actions are listed.

Length Constraints: Minimum length of 1. Maximum length of 128.

**violationId**

The unique identifier of the violation.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "actionsExecutions": [
      {
         "actionName": "string",
         "errorCode": "string",
         "executionEndDate": number,
         "executionStartDate": number,
```

```
            "message": "string",
            "status": "string",
            "taskId": "string",
            "thingName": "string",
            "violationId": "string"
        }
    ],
    "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**actionsExecutions**

List of actions executions.

Type: Array of DetectMitigationActionExecution objects

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListDetectMitigationActionsTasks

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

List of Device Defender ML Detect mitigation actions tasks.

Requires permission to access the ListDetectMitigationActionsTasks action.

## Request Syntax

```
GET /detect/mitigationactions/tasks?
endTime=endTime&maxResults=maxResults&nextToken=nextToken&startTime=startTime HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**endTime**

The end of the time period for which ML Detect mitigation actions tasks are returned.

Required: Yes

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**startTime**

A filter to limit results to those found after the specified time. You must specify either the startTime and endTime or the taskId, but not both.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "tasks": [
      {
         "actionsDefinition": [
            {
               "actionParams": {
                  "addThingsToThingGroupParams": {
                     "overrideDynamicGroups": boolean,
                     "thingGroupNames": [ "string" ]
                  },
                  "enableIoTLoggingParams": {
                     "logLevel": "string",
                     "roleArnForLogging": "string"
                  },
                  "publishFindingToSnsParams": {
                     "topicArn": "string"
                  },
                  "replaceDefaultPolicyVersionParams": {
                     "templateName": "string"
                  },
                  "updateCACertificateParams": {
                     "action": "string"
                  },
                  "updateDeviceCertificateParams": {
                     "action": "string"
```

```
                    }
                },
                "id": "string",
                "name": "string",
                "roleArn": "string"
            }
        ],
        "onlyActiveViolationsIncluded": boolean,
        "suppressedAlertsIncluded": boolean,
        "target": {
            "behaviorName": "string",
            "securityProfileName": "string",
            "violationIds": [ "string" ]
        },
        "taskEndTime": number,
        "taskId": "string",
        "taskStartTime": number,
        "taskStatistics": {
            "actionsExecuted": number,
            "actionsFailed": number,
            "actionsSkipped": number
        },
        "taskStatus": "string",
        "violationEventOccurrenceRange": {
            "endTime": number,
            "startTime": number
        }
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### nextToken

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**tasks**

The collection of ML Detect mitigation tasks that matched the filter criteria.

Type: Array of DetectMitigationActionsTaskSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListDimensions

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

List the set of dimensions that are defined for your AWS accounts.

Requires permission to access the ListDimensions action.

## Request Syntax

```
GET /dimensions?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to retrieve at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "dimensionNames": [ "string" ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**dimensionNames**

A list of the names of the defined dimensions. Use `DescribeDimension` to get details for a dimension.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListDomainConfigurations

Service: AWS IoT

Gets a list of domain configurations for the user. This list is sorted alphabetically by domain configuration name.

Requires permission to access the ListDomainConfigurations action.

## Request Syntax

```
GET /domainConfigurations?marker=marker&pageSize=pageSize&serviceType=serviceType
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

**serviceType**

The type of service delivered by the endpoint.

Valid Values: `DATA | CREDENTIAL_PROVIDER | JOBS`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "domainConfigurations": [
      {
         "domainConfigurationArn": "string",
         "domainConfigurationName": "string",
         "serviceType": "string"
      }
   ],
   "nextMarker": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**domainConfigurations**

A list of objects that contain summary information about the user's domain configurations.

Type: Array of DomainConfigurationSummary objects

**nextMarker**

The marker for the next set of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListFleetMetrics

Service: AWS IoT

Lists all your fleet metrics.

Requires permission to access the ListFleetMetrics action.

## Request Syntax

```
GET /fleet-metrics?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise `null` to receive the first set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "fleetMetrics": [
      {
         "metricArn": "string",
         "metricName": "string"
      }
```

```
    ],
    "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**fleetMetrics**

The list of fleet metrics objects.

Type: Array of FleetMetricNameAndArn objects

**nextToken**

The token for the next set of results. Will not be returned if the operation has returned all results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListIndices

Service: AWS IoT

Lists the search indices.

Requires permission to access the ListIndices action.

## Request Syntax

```
GET /indices?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 500.

**nextToken**

The token used to get the next set of results, or `null` if there are no additional results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "indexNames": [ "string" ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**indexNames**

The index names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**nextToken**

The token used to get the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListJobExecutionsForJob

Service: AWS IoT

Lists the job executions for a job.

Requires permission to access the ListJobExecutionsForJob action.

## Request Syntax

```
GET /jobs/jobId/things?maxResults=maxResults&nextToken=nextToken&status=status HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**jobId**

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**maxResults**

The maximum number of results to be returned per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token to retrieve the next set of results.

**status**

The status of the job.

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "executionSummaries": [
      {
         "jobExecutionSummary": {
            "executionNumber": number,
            "lastUpdatedAt": number,
            "queuedAt": number,
            "retryAttempt": number,
            "startedAt": number,
            "status": "string"
         },
         "thingArn": "string"
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**executionSummaries**

A list of job execution summaries.

Type: Array of JobExecutionSummaryForJob objects

**nextToken**

The token for the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListJobExecutionsForThing

Service: AWS IoT

Lists the job executions for the specified thing.

Requires permission to access the ListJobExecutionsForThing action.

## Request Syntax

```
GET /things/thingName/jobs?
jobId=jobId&maxResults=maxResults&namespaceId=namespaceId&nextToken=nextToken&status=status
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**jobId**

The unique identifier you assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

**maxResults**

The maximum number of results to be returned per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**namespaceId**

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/THING_NAME/jobs/JOB_ID/notify-namespace-NAMESPACE_ID/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Pattern: `[a-zA-Z0-9_-]+`

**nextToken**

The token to retrieve the next set of results.

**status**

An optional filter that lets you search for jobs that have the specified status.

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

**thingName**

The thing name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "executionSummaries": [
      {
         "jobExecutionSummary": {
            "executionNumber": number,
            "lastUpdatedAt": number,
            "queuedAt": number,
            "retryAttempt": number,
            "startedAt": number,
            "status": "string"
         },
         "jobId": "string"
```

```
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**executionSummaries**

A list of job execution summaries.

Type: Array of JobExecutionSummaryForThing objects

**nextToken**

The token for the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListJobs

Service: AWS IoT

Lists jobs.

Requires permission to access the ListJobs action.

## Request Syntax

```
GET /jobs?
maxResults=maxResults&namespaceId=namespaceId&nextToken=nextToken&status=status&targetSelection
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**namespaceId**

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/THING_NAME/jobs/JOB_ID/notify-namespace-NAMESPACE_ID/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Pattern: `[a-zA-Z0-9_-]+`

**nextToken**

The token to retrieve the next set of results.

**status**

An optional filter that lets you search for jobs that have the specified status.

Valid Values: `IN_PROGRESS | CANCELED | COMPLETED | DELETION_IN_PROGRESS | SCHEDULED`

**targetSelection**

Specifies whether the job will continue to run (CONTINUOUS), or will be complete after all those things specified as targets have completed the job (SNAPSHOT). If continuous, the job may also be run on a thing when a change is detected in a target. For example, a job will run on a thing when the thing is added to a target group, even after the job was completed by all things originally in the group.

> **Note**
>
> We recommend that you use continuous jobs instead of snapshot jobs for dynamic thing group targets. By using continuous jobs, devices that join the group receive the job execution even after the job has been created.

Valid Values: `CONTINUOUS | SNAPSHOT`

**thingGroupId**

A filter that limits the returned jobs to those for the specified group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

**thingGroupName**

A filter that limits the returned jobs to those for the specified group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "jobs": [
      {
         "completedAt": number,
         "createdAt": number,
         "isConcurrent": boolean,
         "jobArn": "string",
         "jobId": "string",
         "lastUpdatedAt": number,
         "status": "string",
         "targetSelection": "string",
         "thingGroupId": "string"
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**jobs**

A list of jobs.

Type: Array of JobSummary objects

**nextToken**

The token for the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListJobTemplates

Service: AWS IoT

Returns a list of job templates.

Requires permission to access the ListJobTemplates action.

## Request Syntax

```
GET /job-templates?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in the list.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token to use to return the next set of results in the list.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "jobTemplates": [
      {
         "createdAt": number,
         "description": "string",
         "jobTemplateArn": "string",
         "jobTemplateId": "string"
```

```
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**jobTemplates**

A list of objects that contain information about the job templates.

Type: Array of JobTemplateSummary objects

**nextToken**

The token for the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListManagedJobTemplates

Service: AWS IoT

Returns a list of managed job templates.

## Request Syntax

```
GET /managed-job-templates?
maxResults=maxResults&nextToken=nextToken&templateName=templateName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

Maximum number of entries that can be returned.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token to retrieve the next set of results.

**templateName**

An optional parameter for template name. If specified, only the versions of the managed job templates that have the specified template name will be returned.

Length Constraints: Minimum length of 1. Maximum length of 64.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "managedJobTemplates": [
```

```
      {
         "description": "string",
         "environments": [ "string" ],
         "templateArn": "string",
         "templateName": "string",
         "templateVersion": "string"
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**managedJobTemplates**

A list of managed job templates that are returned.

Type: Array of ManagedJobTemplateSummary objects

**nextToken**

The token to retrieve the next set of results.

Type: String

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListMetricValues

Service: AWS IoT

Lists the values reported for an AWS IoT Device Defender metric (device-side metric, cloud-side metric, or custom metric) by the given thing during the specified time period.

## Request Syntax

```
GET /metric-values?
dimensionName=dimensionName&dimensionValueOperator=dimensionValueOperator&endTime=endTime&maxRe
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**dimensionName**

The dimension name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**dimensionValueOperator**

The dimension value operator.

Valid Values: `IN | NOT_IN`

**endTime**

The end of the time period for which metric values are returned.

Required: Yes

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**metricName**

The name of the security profile metric for which values are returned.

Required: Yes

**nextToken**

The token for the next set of results.

**startTime**

The start of the time period for which metric values are returned.

Required: Yes

**thingName**

The name of the thing for which security profile metric values are returned.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "metricDatumList": [
      {
         "timestamp": number,
         "value": {
            "cidrs": [ "string" ],
            "count": number,
            "number": number,
            "numbers": [ number ],
            "ports": [ number ],
            "strings": [ "string" ]
         }
      }
   ],
   "nextToken": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**metricDatumList**

The data the thing reports for the metric during the specified time period.

Type: Array of MetricDatum objects

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListMitigationActions

Service: AWS IoT

Gets a list of all mitigation actions that match the specified filter criteria.

Requires permission to access the ListMitigationActions action.

## Request Syntax

```
GET /mitigationactions/actions?
actionType=actionType&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**actionType**

Specify a value to limit the result to mitigation actions with a specific action type.

Valid Values: `UPDATE_DEVICE_CERTIFICATE | UPDATE_CA_CERTIFICATE | ADD_THINGS_TO_THING_GROUP | REPLACE_DEFAULT_POLICY_VERSION | ENABLE_IOT_LOGGING | PUBLISH_FINDING_TO_SNS`

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "actionIdentifiers": [
      {
         "actionArn": "string",
         "actionName": "string",
         "creationDate": number
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**actionIdentifiers**

A set of actions that matched the specified filter criteria.

Type: Array of MitigationActionIdentifier objects

**nextToken**

The token for the next set of results.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListOTAUpdates

Service: AWS IoT

Lists OTA updates.

Requires permission to access the ListOTAUpdates action.

## Request Syntax

```
GET /otaUpdates?
maxResults=maxResults&nextToken=nextToken&otaUpdateStatus=otaUpdateStatus HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

A token used to retrieve the next set of results.

**otaUpdateStatus**

The OTA update job status.

Valid Values: `CREATE_PENDING | CREATE_IN_PROGRESS | CREATE_COMPLETE | CREATE_FAILED | DELETE_IN_PROGRESS | DELETE_FAILED`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextToken": "string",
   "otaUpdates": [
      {
         "creationDate": number,
         "otaUpdateArn": "string",
         "otaUpdateId": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token to use to get the next set of results.

Type: String

**otaUpdates**

A list of OTA update jobs.

Type: Array of OTAUpdateSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListOutgoingCertificates

Service: AWS IoT

Lists certificates that are being transferred but not yet accepted.

Requires permission to access the ListOutgoingCertificates action.

## Request Syntax

```
GET /certificates-out-going?
isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Specifies the order for results. If True, the results are returned in ascending order, based on the creation date.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextMarker": "string",
   "outgoingCertificates": [
      {
         "certificateArn": "string",
         "certificateId": "string",
         "creationDate": number,
         "transferDate": number,
         "transferMessage": "string",
         "transferredTo": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

The marker for the next set of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**outgoingCertificates**

The certificates that are being transferred but not yet accepted.

Type: Array of OutgoingCertificate objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPackages

Service: AWS IoT

Lists the software packages associated to the account.

Requires permission to access the ListPackages action.

## Request Syntax

```
GET /packages?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results returned at one time.

Valid Range: Minimum value of 1. Maximum value of 100.

**nextToken**

The token for the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "packageSummaries": [
      {
         "creationDate": number,
         "defaultVersionName": "string",
         "lastModifiedDate": number,
```

```
            "packageName": "string"
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token for the next set of results.

Type: String

**packageSummaries**

The software package summary.

Type: Array of PackageSummary objects

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPackageVersions

Service: AWS IoT

Lists the software package versions associated to the account.

Requires permission to access the ListPackageVersions action.

## Request Syntax

```
GET /packages/packageName/versions?
maxResults=maxResults&nextToken=nextToken&status=status HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 100.

**nextToken**

The token for the next set of results.

**packageName**

The name of the target software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**status**

The status of the package version. For more information, see Package version lifecycle.

Valid Values: `DRAFT | PUBLISHED | DEPRECATED`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "packageVersionSummaries": [
      {
         "creationDate": number,
         "lastModifiedDate": number,
         "packageName": "string",
         "status": "string",
         "versionName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token for the next set of results.

Type: String

**packageVersionSummaries**

Lists the package versions associated to the package.

Type: Array of PackageVersionSummary objects

## Errors

### InternalServerException

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPolicies

Service: AWS IoT

Lists your policies.

Requires permission to access the ListPolicies action.

## Request Syntax

```
GET /policies?isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Specifies the order for results. If true, the results are returned in ascending creation order.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextMarker": "string",
   "policies": [
      {
         "policyArn": "string",
         "policyName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

The marker for the next set of results, or null if there are no additional results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**policies**

The descriptions of the policies.

Type: Array of Policy objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPolicyPrincipals

Service: AWS IoT

Lists the principals associated with the specified policy.

**Note:** This action is deprecated and works as expected for backward compatibility, but we won't add enhancements. Use ListTargetsForPolicy instead.

Requires permission to access the ListPolicyPrincipals action.

## Request Syntax

```
GET /policy-principals?isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize
 HTTP/1.1
x-amzn-iot-policy: policyName
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Specifies the order for results. If true, the results are returned in ascending creation order.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

**policyName**

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextMarker": "string",
   "principals": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

The marker for the next set of results, or null if there are no additional results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**principals**

The descriptions of the principals.

Type: Array of strings

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPolicyVersions

Service: AWS IoT

Lists the versions of the specified policy and identifies the default version.

Requires permission to access the ListPolicyVersions action.

## Request Syntax

```
GET /policies/policyName/version HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### policyName

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "policyVersions": [
      {
         "createDate": number,
         "isDefaultVersion": boolean,
         "versionId": "string"
      }
```

```
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**policyVersions**

The policy versions.

Type: Array of PolicyVersion objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPrincipalPolicies

Service: AWS IoT

Lists the policies attached to the specified principal. If you use an Cognito identity, the ID must be in AmazonCognito Identity format.

**Note:** This action is deprecated and works as expected for backward compatibility, but we won't add enhancements. Use ListAttachedPolicies instead.

Requires permission to access the ListPrincipalPolicies action.

## Request Syntax

```
GET /principal-policies?isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize
 HTTP/1.1
x-amzn-iot-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Specifies the order for results. If true, results are returned in ascending creation order.

**marker**

The marker for the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 250.

**principal**

The principal. Valid principals are CertificateArn (arn:aws:iot:*region*:*accountId*:cert/*certificateId*), thingGroupArn (arn:aws:iot:*region*:*accountId*:thinggroup/*groupName*) and CognitoId (*region*:*id*).

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextMarker": "string",
   "policies": [
      {
         "policyArn": "string",
         "policyName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

The marker for the next set of results, or null if there are no additional results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**policies**

The policies.

Type: Array of Policy objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPrincipalThings

Service: AWS IoT

Lists the things associated with the specified principal. A principal can be X.509 certificates, IAM users, groups, and roles, Amazon Cognito identities or federated identities.

Requires permission to access the ListPrincipalThings action.

## Request Syntax

```
GET /principals/things?maxResults=maxResults&nextToken=nextToken HTTP/1.1
x-amzn-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**principal**

The principal.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextToken": "string",
   "things": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**things**

The things.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListPrincipalThingsV2

Service: AWS IoT

Lists the things associated with the specified principal. A principal can be an X.509 certificate or an Amazon Cognito ID.

Requires permission to access the ListPrincipalThings action.

## Request Syntax

```
GET /principals/things-v2?
maxResults=maxResults&nextToken=nextToken&thingPrincipalType=thingPrincipalType
 HTTP/1.1
x-amzn-principal: principal
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**principal**

The principal. A principal can be an X.509 certificate or an Amazon Cognito ID.

Required: Yes

**thingPrincipalType**

The type of the relation you want to filter in the response. If no value is provided in this field, the response will list all things, including both the `EXCLUSIVE_THING` and `NON_EXCLUSIVE_THING` attachment types.

- `EXCLUSIVE_THING` - Attaches the specified principal to the specified thing, exclusively. The thing will be the only thing that's attached to the principal.

- NON_EXCLUSIVE_THING - Attaches the specified principal to the specified thing. Multiple things can be attached to the principal.

Valid Values: EXCLUSIVE_THING | NON_EXCLUSIVE_THING

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "principalThingObjects": [
      {
         "thingName": "string",
         "thingPrincipalType": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**principalThingObjects**

A list of thingPrincipalObject that represents the principal and the type of relation it has with the thing.

Type: Array of PrincipalThingObject objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListProvisioningTemplates

Service: AWS IoT

Lists the provisioning templates in your AWS account.

Requires permission to access the ListProvisioningTemplates action.

## Request Syntax

```
GET /provisioning-templates?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

A token to retrieve the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "templates": [
      {
         "creationDate": number,
         "description": "string",
         "enabled": boolean,
```

```
            "lastModifiedDate": number,
            "templateArn": "string",
            "templateName": "string",
            "type": "string"
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token to retrieve the next set of results.

Type: String

**templates**

A list of provisioning templates

Type: Array of ProvisioningTemplateSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListProvisioningTemplateVersions

Service: AWS IoT

A list of provisioning template versions.

Requires permission to access the ListProvisioningTemplateVersions action.

## Request Syntax

```
GET /provisioning-templates/templateName/versions?
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

A token to retrieve the next set of results.

**templateName**

The name of the provisioning template.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextToken": "string",
   "versions": [
      {
         "creationDate": number,
         "isDefaultVersion": boolean,
         "versionId": number
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token to retrieve the next set of results.

Type: String

**versions**

The list of provisioning template versions.

Type: Array of ProvisioningTemplateVersionSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListRelatedResourcesForAuditFinding

Service: AWS IoT

The related resources of an Audit finding. The following resources can be returned from calling this API:

- DEVICE_CERTIFICATE
- CA_CERTIFICATE
- IOT_POLICY
- COGNITO_IDENTITY_POOL
- CLIENT_ID
- ACCOUNT_SETTINGS
- ROLE_ALIAS
- IAM_ROLE
- ISSUER_CERTIFICATE

> **Note**
>
> This API is similar to DescribeAuditFinding's RelatedResources but provides pagination and is not limited to 10 resources. When calling DescribeAuditFinding for the intermediate CA revoked for active device certificates check, RelatedResources will not be populated. You must use this API, ListRelatedResourcesForAuditFinding, to list the certificates.

## Request Syntax

```
GET /audit/relatedResources?
findingId=findingId&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### findingId

The finding Id.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "relatedResources": [
      {
         "additionalInfo": {
            "string" : "string"
         },
         "resourceIdentifier": {
            "account": "string",
            "caCertificateId": "string",
            "clientId": "string",
            "cognitoIdentityPoolId": "string",
            "deviceCertificateArn": "string",
            "deviceCertificateId": "string",
            "iamRoleArn": "string",
            "issuerCertificateIdentifier": {
               "issuerCertificateSerialNumber": "string",
```

```
                "issuerCertificateSubject": "string",
                "issuerId": "string"
            },
            "policyVersionIdentifier": {
                "policyName": "string",
                "policyVersionId": "string"
            },
            "roleAliasArn": "string"
        },
        "resourceType": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` for the first API call.

Type: String

**relatedResources**

The related resources.

Type: Array of RelatedResource objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListRoleAliases

Service: AWS IoT

Lists the role aliases registered in your account.

Requires permission to access the ListRoleAliases action.

## Request Syntax

```
GET /role-aliases?isAscendingOrder=ascendingOrder&marker=marker&pageSize=pageSize
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Return the list of role aliases in ascending alphabetical order.

**marker**

A marker used to get the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextMarker": "string",
   "roleAliases": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

A marker used to get the next set of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**roleAliases**

The role aliases.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListSbomValidationResults

Service: AWS IoT

The validation results for all software bill of materials (SBOM) attached to a specific software package version.

Requires permission to access the ListSbomValidationResults action.

## Request Syntax

```
GET /packages/packageName/versions/versionName/sbom-validation-results?
maxResults=maxResults&nextToken=nextToken&validationResult=validationResult HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 100.

**nextToken**

A token that can be used to retrieve the next set of results, or null if there are no additional results.

**packageName**

The name of the new software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**validationResult**

The end result of the

Valid Values: `FAILED | SUCCEEDED`

**versionName**

The name of the new package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "validationResultSummaries": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "fileName": "string",
         "validationResult": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or null if there are no additional results.

Type: String

**validationResultSummaries**

A summary of the validation results for each software bill of materials attached to a software package version.

Type: Array of SbomValidationResultSummary objects

## Errors

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListScheduledAudits

Service: AWS IoT

Lists all of your scheduled audits.

Requires permission to access the ListScheduledAudits action.

## Request Syntax

```
GET /audit/scheduledaudits?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time. The default is 25.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "scheduledAudits": [
      {
         "dayOfMonth": "string",
         "dayOfWeek": "string",
         "frequency": "string",
         "scheduledAuditArn": "string",
```

```
            "scheduledAuditName": "string"
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**scheduledAudits**

The list of scheduled audits.

Type: Array of ScheduledAuditMetadata objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListSecurityProfiles

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists the Device Defender security profiles you've created. You can filter security profiles by dimension or custom metric.

Requires permission to access the ListSecurityProfiles action.

> **Note**
>
> `dimensionName` and `metricName` cannot be used in the same request.

## Request Syntax

```
GET /security-profiles?
dimensionName=dimensionName&maxResults=maxResults&metricName=metricName&nextToken=nextToken
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### dimensionName

A filter to limit results to the security profiles that use the defined dimension. Cannot be used with `metricName`

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**metricName**

The name of the custom metric. Cannot be used with `dimensionName`.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**nextToken**

The token for the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "securityProfileIdentifiers": [
      {
         "arn": "string",
         "name": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**securityProfileIdentifiers**

A list of security profile identifiers (names and ARNs).

Type: Array of SecurityProfileIdentifier objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListSecurityProfilesForTarget

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists the Device Defender security profiles attached to a target (thing group).

Requires permission to access the ListSecurityProfilesForTarget action.

## Request Syntax

```
GET /security-profiles-for-target?
maxResults=maxResults&nextToken=nextToken&recursive=recursive&securityProfileTargetArn=security
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**recursive**

If true, return child groups too.

**securityProfileTargetArn**

The ARN of the target (thing group) whose attached security profiles you want to get.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "securityProfileTargetMappings": [
      {
         "securityProfileIdentifier": {
            "arn": "string",
            "name": "string"
         },
         "target": {
            "arn": "string"
         }
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**securityProfileTargetMappings**

A list of security profiles and their associated targets.

Type: Array of SecurityProfileTargetMapping objects

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

### InvalidRequestException

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

### ResourceNotFoundException

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

### ThrottlingException

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListStreams

Service: AWS IoT

Lists all of the streams in your AWS account.

Requires permission to access the ListStreams action.

## Request Syntax

```
GET /streams?isAscendingOrder=ascendingOrder&maxResults=maxResults&nextToken=nextToken
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**ascendingOrder**

Set to true to return the list of streams in ascending order.

**maxResults**

The maximum number of results to return at a time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

A token used to get the next set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "streams": [
      {
```

```
            "description": "string",
            "streamArn": "string",
            "streamId": "string",
            "streamVersion": number
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token used to get the next set of results.

Type: String

**streams**

A list of streams.

Type: Array of StreamSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTagsForResource

Service: AWS IoT

Lists the tags (metadata) you have assigned to the resource.

Requires permission to access the ListTagsForResource action.

## Request Syntax

```
GET /tags?nextToken=nextToken&resourceArn=resourceArn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**resourceArn**

The ARN of the resource.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
```

```
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**tags**

The list of tags assigned to the resource.

Type: Array of Tag objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTargetsForPolicy

Service: AWS IoT

List targets for the specified policy.

Requires permission to access the ListTargetsForPolicy action.

## Request Syntax

```
POST /policy-targets/policyName?marker=marker&pageSize=pageSize HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**marker**

A marker used to get the next set of results.

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**pageSize**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**policyName**

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextMarker": "string",
   "targets": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextMarker**

A marker used to get the next set of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[A-Za-z0-9+/]+={0,2}`

**targets**

The policy targets.

Type: Array of strings

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTargetsForSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists the targets (thing groups) associated with a given Device Defender security profile.

Requires permission to access the ListTargetsForSecurityProfile action.

## Request Syntax

```
GET /security-profiles/securityProfileName/targets?
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**securityProfileName**

The security profile.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "securityProfileTargets": [
      {
         "arn": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**securityProfileTargets**

The thing groups to which the security profile is attached.

Type: Array of SecurityProfileTarget objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingGroups

Service: AWS IoT

List the thing groups in your account.

Requires permission to access the ListThingGroups action.

## Request Syntax

```
GET /thing-groups?
maxResults=maxResults&namePrefixFilter=namePrefixFilter&nextToken=nextToken&parentGroup=parentG
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**namePrefixFilter**

A filter that limits the results to those with the specified name prefix.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**parentGroup**

A filter that limits the results to those with the specified parent group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**recursive**

If true, return child groups as well.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "thingGroups": [
      {
         "groupArn": "string",
         "groupName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results. Will not be returned if operation has returned all results.

Type: String

**thingGroups**

The thing groups.

Type: Array of GroupNameAndArn objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingGroupsForThing

Service: AWS IoT

List the thing groups to which the specified thing belongs.

Requires permission to access the ListThingGroupsForThing action.

## Request Syntax

```
GET /things/thingName/thing-groups?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**thingName**

The thing name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "thingGroups": [
      {
         "groupArn": "string",
         "groupName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**thingGroups**

The thing groups.

Type: Array of GroupNameAndArn objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingPrincipals

Service: AWS IoT

Lists the principals associated with the specified thing. A principal can be X.509 certificates, IAM users, groups, and roles, Amazon Cognito identities or federated identities.

Requires permission to access the ListThingPrincipals action.

## Request Syntax

```
GET /things/thingName/principals?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "principals": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**principals**

The principals associated with the thing.

Type: Array of strings

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingPrincipalsV2

Service: AWS IoT

Lists the principals associated with the specified thing. A principal can be an X.509 certificate or an Amazon Cognito ID.

Requires permission to access the ListThingPrincipals action.

## Request Syntax

```
GET /things/thingName/principals-v2?
maxResults=maxResults&nextToken=nextToken&thingPrincipalType=thingPrincipalType
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**thingPrincipalType**

The type of the relation you want to filter in the response. If no value is provided in this field, the response will list all principals, including both the `EXCLUSIVE_THING` and `NON_EXCLUSIVE_THING` attachment types.

- EXCLUSIVE_THING - Attaches the specified principal to the specified thing, exclusively. The thing will be the only thing that's attached to the principal.
- NON_EXCLUSIVE_THING - Attaches the specified principal to the specified thing. Multiple things can be attached to the principal.

Valid Values: EXCLUSIVE_THING | NON_EXCLUSIVE_THING

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "thingPrincipalObjects": [
      {
         "principal": "string",
         "thingPrincipalType": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**thingPrincipalObjects**

A list of thingPrincipalObject that represents the principal and the type of relation it has with the thing.

Type: Array of ThingPrincipalObject objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingRegistrationTaskReports

Service: AWS IoT

Information about the thing registration tasks.

## Request Syntax

```
GET /thing-registration-tasks/taskId/reports?
maxResults=maxResults&nextToken=nextToken&reportType=reportType HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**reportType**

The type of task report.

Valid Values: `ERRORS | RESULTS`

Required: Yes

**taskId**

The id of the task.

Length Constraints: Maximum length of 40.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "reportType": "string",
   "resourceLinks": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**reportType**

The type of task report.

Type: String

Valid Values: ERRORS | RESULTS

**resourceLinks**

Links to the task resources.

Type: Array of strings

Length Constraints: Maximum length of 65535.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingRegistrationTasks

Service: AWS IoT

List bulk thing provisioning tasks.

Requires permission to access the ListThingRegistrationTasks action.

## Request Syntax

```
GET /thing-registration-tasks?maxResults=maxResults&nextToken=nextToken&status=status
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**status**

The status of the bulk thing provisioning task.

Valid Values: `InProgress | Completed | Failed | Cancelled | Cancelling`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextToken": "string",
   "taskIds": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**taskIds**

A list of bulk thing provisioning task IDs.

Type: Array of strings

Length Constraints: Maximum length of 40.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThings

Service: AWS IoT

Lists your things. Use the **attributeName** and **attributeValue** parameters to filter your things. For example, calling `ListThings` with attributeName=Color and attributeValue=Red retrieves all things in the registry that contain an attribute **Color** with the value **Red**. For more information, see List Things from the *AWS IoT Core Developer Guide*.

Requires permission to access the ListThings action.

> **Note**
>
> You will not be charged for calling this API if an `Access denied` error is returned. You will also not be charged if no attributes or pagination token was provided in request and no pagination token and no results were returned.

## Request Syntax

```
GET /things?
attributeName=attributeName&attributeValue=attributeValue&maxResults=maxResults&nextToken=nextT
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**attributeName**

The attribute name used to search for things.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_.,@/:#-]+`

**attributeValue**

The attribute value used to search for things.

Length Constraints: Maximum length of 800.

Pattern: `[a-zA-Z0-9_.,@/:#=\[\]-]*`

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**thingTypeName**

The name of the thing type used to search for things.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**usePrefixAttributeValue**

When `true`, the action returns the thing resources with attribute values that start with the `attributeValue` provided.

When `false`, or not present, the action returns only the thing resources with attribute values that match the entire `attributeValue` provided.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "things": [
      {
         "attributes": {
            "string" : "string"
```

```
            },
            "thingArn": "string",
            "thingName": "string",
            "thingTypeName": "string",
            "version": number
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results. Will not be returned if operation has returned all results.

Type: String

**things**

The things.

Type: Array of ThingAttribute objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingsInBillingGroup

Service: AWS IoT

Lists the things you have added to the given billing group.

Requires permission to access the ListThingsInBillingGroup action.

## Request Syntax

```
GET /billing-groups/billingGroupName/things?maxResults=maxResults&nextToken=nextToken
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**billingGroupName**

The name of the billing group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**maxResults**

The maximum number of results to return per request.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "things": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results. Will not be returned if operation has returned all results.

Type: String

**things**

A list of things in the billing group.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingsInThingGroup

Service: AWS IoT

Lists the things in the specified group.

Requires permission to access the ListThingsInThingGroup action.

## Request Syntax

```
GET /thing-groups/thingGroupName/things?
maxResults=maxResults&nextToken=nextToken&recursive=recursive HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**recursive**

When true, list things in this thing group and in all child groups as well.

**thingGroupName**

The thing group name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "things": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**things**

The things in the specified thing group.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListThingTypes

Service: AWS IoT

Lists the existing thing types.

Requires permission to access the ListThingTypes action.

## Request Syntax

```
GET /thing-types?maxResults=maxResults&nextToken=nextToken&thingTypeName=thingTypeName
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return in this operation.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**thingTypeName**

The name of the thing type.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "nextToken": "string",
   "thingTypes": [
      {
         "thingTypeArn": "string",
         "thingTypeMetadata": {
            "creationDate": number,
            "deprecated": boolean,
            "deprecationDate": number
         },
         "thingTypeName": "string",
         "thingTypeProperties": {
            "mqtt5Configuration": {
               "propagatingAttributes": [
                  {
                     "connectionAttribute": "string",
                     "thingAttribute": "string",
                     "userPropertyKey": "string"
                  }
               ]
            },
            "searchableAttributes": [ "string" ],
            "thingTypeDescription": "string"
         }
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### nextToken

The token for the next set of results. Will not be returned if operation has returned all results.

Type: String

### thingTypes

The thing types.

Type: Array of ThingTypeDefinition objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTopicRuleDestinations

Service: AWS IoT

Lists all the topic rule destinations in your AWS account.

Requires permission to access the ListTopicRuleDestinations action.

## Request Syntax

```
GET /destinations?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 1000.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "destinationSummaries": [
      {
         "arn": "string",
         "createdAt": number,
         "httpUrlSummary": {
            "confirmationUrl": "string"
```

```
         },
         "lastUpdatedAt": number,
         "status": "string",
         "statusReason": "string",
         "vpcDestinationSummary": {
            "roleArn": "string",
            "securityGroups": [ "string" ],
            "subnetIds": [ "string" ],
            "vpcId": "string"
         }
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**destinationSummaries**

Information about a topic rule destination.

Type: Array of TopicRuleDestinationSummary objects

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTopicRules

Service: AWS IoT

Lists the rules for the specific topic.

Requires permission to access the ListTopicRules action.

## Request Syntax

```
GET /rules?
maxResults=maxResults&nextToken=nextToken&ruleDisabled=ruleDisabled&topic=topic
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return.

Valid Range: Minimum value of 1. Maximum value of 10000.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**ruleDisabled**

Specifies whether the rule is disabled.

**topic**

The topic.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "rules": [
      {
         "createdAt": number,
         "ruleArn": "string",
         "ruleDisabled": boolean,
         "ruleName": "string",
         "topicPattern": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**rules**

The rules.

Type: Array of TopicRuleListItem objects

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListV2LoggingLevels

Service: AWS IoT

Lists logging levels.

Requires permission to access the ListV2LoggingLevels action.

## Request Syntax

```
GET /v2LoggingLevel?maxResults=maxResults&nextToken=nextToken&targetType=targetType
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

**targetType**

The type of resource for which you are configuring logging. Must be `THING_Group`.

Valid Values: `DEFAULT | THING_GROUP | CLIENT_ID | SOURCE_IP | PRINCIPAL_ID`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "logTargetConfigurations": [
      {
         "logLevel": "string",
         "logTarget": {
            "targetName": "string",
            "targetType": "string"
         }
      }
   ],
   "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**logTargetConfigurations**

The logging configuration for a target.

Type: Array of LogTargetConfiguration objects

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**NotConfiguredException**

The resource is not configured.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListViolationEvents

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Lists the Device Defender security profile violations discovered during the given time period. You can use filters to limit the results to those alerts issued for a particular security profile, behavior, or thing (device).

Requires permission to access the ListViolationEvents action.

## Request Syntax

```
GET /violation-events?
behaviorCriteriaType=behaviorCriteriaType&endTime=endTime&listSuppressedAlerts=listSuppressedAl
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### behaviorCriteriaType

The criteria for a behavior.

Valid Values: `STATIC | STATISTICAL | MACHINE_LEARNING`

### endTime

The end time for the alerts to be listed.

Required: Yes

### listSuppressedAlerts

A list of all suppressed alerts.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 250.

**nextToken**

The token for the next set of results.

**securityProfileName**

A filter to limit results to those alerts generated by the specified security profile.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**startTime**

The start time for the alerts to be listed.

Required: Yes

**thingName**

A filter to limit results to those alerts caused by the specified thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

**verificationState**

The verification state of the violation (detect alarm).

Valid Values: `FALSE_POSITIVE | BENIGN_POSITIVE | TRUE_POSITIVE | UNKNOWN`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
```

```
   "violationEvents": [
      {
         "behavior": {
            "criteria": {
               "comparisonOperator": "string",
               "consecutiveDatapointsToAlarm": number,
               "consecutiveDatapointsToClear": number,
               "durationSeconds": number,
               "mlDetectionConfig": {
                  "confidenceLevel": "string"
               },
               "statisticalThreshold": {
                  "statistic": "string"
               },
               "value": {
                  "cidrs": [ "string" ],
                  "count": number,
                  "number": number,
                  "numbers": [ number ],
                  "ports": [ number ],
                  "strings": [ "string" ]
               }
            },
            "exportMetric": boolean,
            "metric": "string",
            "metricDimension": {
               "dimensionName": "string",
               "operator": "string"
            },
            "name": "string",
            "suppressAlerts": boolean
         },
         "metricValue": {
            "cidrs": [ "string" ],
            "count": number,
            "number": number,
            "numbers": [ number ],
            "ports": [ number ],
            "strings": [ "string" ]
         },
         "securityProfileName": "string",
         "thingName": "string",
         "verificationState": "string",
         "verificationStateDescription": "string",
```

```
         "violationEventAdditionalInfo": {
            "confidenceLevel": "string"
         },
         "violationEventTime": number,
         "violationEventType": "string",
         "violationId": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token that can be used to retrieve the next set of results, or `null` if there are no additional results.

Type: String

**violationEvents**

The security profile violation alerts issued for this account during the given time period, potentially filtered by security profile, behavior violated, or thing (device) violating.

Type: Array of ViolationEvent objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# PutVerificationStateOnViolation

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Set a verification state and provide a description of that verification state on a violation (detect alarm).

## Request Syntax

```
POST /violations/verification-state/violationId HTTP/1.1
Content-type: application/json

{
   "verificationState": "string",
   "verificationStateDescription": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### violationId

The violation ID.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**verificationState**

The verification state of the violation.

Type: String

Valid Values: `FALSE_POSITIVE | BENIGN_POSITIVE | TRUE_POSITIVE | UNKNOWN`

Required: Yes

**verificationStateDescription**

The description of the verification state of the violation (detect alarm).

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[^\p{Cntrl}]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RegisterCACertificate

Service: AWS IoT

Registers a CA certificate with AWS IoT Core. There is no limit to the number of CA certificates you can register in your AWS account. You can register up to 10 CA certificates with the same CA `subject field` per AWS account.

Requires permission to access the RegisterCACertificate action.

## Request Syntax

```
POST /cacertificate?allowAutoRegistration=allowAutoRegistration&setAsActive=setAsActive
 HTTP/1.1
Content-type: application/json

{
   "caCertificate": "string",
   "certificateMode": "string",
   "registrationConfig": {
      "roleArn": "string",
      "templateBody": "string",
      "templateName": "string"
   },
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "verificationCertificate": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### allowAutoRegistration

Allows this CA certificate to be used for auto registration of device certificates.

### setAsActive

A boolean value that specifies if the CA certificate is set to active.

Valid values: `ACTIVE | INACTIVE`

## Request Body

The request accepts the following data in JSON format.

**caCertificate**

The CA certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: Yes

**certificateMode**

Describes the certificate mode in which the Certificate Authority (CA) will be registered. If the `verificationCertificate` field is not provided, set `certificateMode` to be `SNI_ONLY`. If the `verificationCertificate` field is provided, set `certificateMode` to be `DEFAULT`. When `certificateMode` is not provided, it defaults to `DEFAULT`. All the device certificates that are registered using this CA will be registered in the same certificate mode as the CA. For more information about certificate mode for device certificates, see certificate mode.

Type: String

Valid Values: `DEFAULT | SNI_ONLY`

Required: No

**registrationConfig**

Information about the registration configuration.

Type: RegistrationConfig object

Required: No

**tags**

Metadata which can be used to manage the CA certificate.

> **Note**
>
> For URI Request parameters use format: ...key1=value1&key2=value2...
> For the CLI command-line parameter use format: &&tags "key1=value1&key2=value2..."
> For the cli-input-json file use format: "tags": "key1=value1&key2=value2..."

Type: Array of Tag objects

Required: No

**verificationCertificate**

The private key verification certificate. If `certificateMode` is `SNI_ONLY`, the `verificationCertificate` field must be empty. If `certificateMode` is `DEFAULT` or not provided, the `verificationCertificate` field must not be empty.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateArn": "string",
   "certificateId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateArn**

The CA certificate ARN.

Type: String

**certificateId**

The CA certificate identifier.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**RegistrationCodeValidationException**

The registration code is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RegisterCertificate

Service: AWS IoT

Registers a device certificate with AWS IoT in the same certificate mode as the signing CA. If you have more than one CA certificate that has the same subject field, you must specify the CA certificate that was used to sign the device certificate being registered.

Requires permission to access the RegisterCertificate action.

## Request Syntax

```
POST /certificate/register?setAsActive=setAsActive HTTP/1.1
Content-type: application/json

{
   "caCertificatePem": "string",
   "certificatePem": "string",
   "status": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### setAsActive

*This parameter has been deprecated.*

A boolean value that specifies if the certificate is set to active.

Valid values: `ACTIVE | INACTIVE`

## Request Body

The request accepts the following data in JSON format.

### caCertificatePem

The CA certificate used to sign the device certificate being registered.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: No

**certificatePem**

The certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: Yes

**status**

The status of the register certificate request. Valid values that you can use include `ACTIVE`, `INACTIVE`, and `REVOKED`.

Type: String

Valid Values: `ACTIVE | INACTIVE | REVOKED | PENDING_TRANSFER | REGISTER_INACTIVE | PENDING_ACTIVATION`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateArn": "string",
   "certificateId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateArn**

The certificate ARN.

Type: String

**certificateId**

The certificate identifier.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

## Errors

**CertificateConflictException**

Unable to verify the CA certificate used to sign the device certificate you are attempting to register. This is happens when you have registered more than one CA certificate that has the same subject field and public key.

**message**

The message for the exception.

HTTP Status Code: 409

**CertificateStateException**

The certificate operation is not allowed.

**message**

The message for the exception.

HTTP Status Code: 406

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RegisterCertificateWithoutCA

Service: AWS IoT

Register a certificate that does not have a certificate authority (CA). For supported certificates, consult Certificate signing algorithms supported by AWS IoT.

## Request Syntax

```
POST /certificate/register-no-ca HTTP/1.1
Content-type: application/json

{
   "certificatePem": "string",
   "status": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**certificatePem**

The certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: Yes

**status**

The status of the register certificate request.

Type: String

Valid Values: `ACTIVE | INACTIVE | REVOKED | PENDING_TRANSFER | REGISTER_INACTIVE | PENDING_ACTIVATION`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateArn": "string",
   "certificateId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateArn**

The Amazon Resource Name (ARN) of the registered certificate.

Type: String

**certificateId**

The ID of the registered certificate. (The last part of the certificate ARN contains the certificate ID.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

## Errors

### CertificateStateException

The certificate operation is not allowed.

**message**

The message for the exception.

HTTP Status Code: 406

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RegisterThing

Service: AWS IoT

Provisions a thing in the device registry. RegisterThing calls other AWS IoT control plane APIs. These calls might exceed your account level AWS IoT Throttling Limits and cause throttle errors. Please contact AWS Customer Support to raise your throttling limits if necessary.

Requires permission to access the RegisterThing action.

## Request Syntax

```
POST /things HTTP/1.1
Content-type: application/json

{
   "parameters": {
      "string" : "string"
   },
   "templateBody": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**parameters**

The parameters for provisioning a thing. See Provisioning Templates for more information.

Type: String to string map

Key Length Constraints: Minimum length of 0. Maximum length of 2048.

Key Pattern: `[\s\S]*`

Value Length Constraints: Minimum length of 0. Maximum length of 4096.

Value Pattern: `[\s\S]*`

Required: No

**templateBody**

The provisioning template. See Provisioning Devices That Have Device Certificates for more information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: [\s\S]*

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificatePem": "string",
   "resourceArns": {
      "string" : "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificatePem**

The certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\s\S]*

**resourceArns**

ARNs for the generated resources.

Type: String to string map

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceRegistrationFailureException**

The resource registration failed.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RejectCertificateTransfer

Service: AWS IoT

Rejects a pending certificate transfer. After AWS IoT rejects a certificate transfer, the certificate status changes from **PENDING_TRANSFER** to **INACTIVE**.

To check for pending certificate transfers, call ListCertificates to enumerate your certificates.

This operation can only be called by the transfer destination. After it is called, the certificate will be returned to the source's account in the INACTIVE state.

Requires permission to access the RejectCertificateTransfer action.

## Request Syntax

```
PATCH /reject-certificate-transfer/certificateId HTTP/1.1
Content-type: application/json

{
   "rejectReason": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### certificateId

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### rejectReason

The reason the certificate transfer was rejected.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**TransferAlreadyCompletedException**

You can't revert the certificate transfer because the transfer is already complete.

**message**

The message for the exception.

HTTP Status Code: 410

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RemoveThingFromBillingGroup

Service: AWS IoT

Removes the given thing from the billing group.

Requires permission to access the RemoveThingFromBillingGroup action.

> **Note**
>
> This call is asynchronous. It might take several seconds for the detachment to propagate.

## Request Syntax

```
PUT /billing-groups/removeThingFromBillingGroup HTTP/1.1
Content-type: application/json

{
   "billingGroupArn": "string",
   "billingGroupName": "string",
   "thingArn": "string",
   "thingName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### billingGroupArn

The ARN of the billing group.

Type: String

Required: No

### billingGroupName

The name of the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingArn**

The ARN of the thing to be removed from the billing group.

Type: String

Required: No

**thingName**

The name of the thing to be removed from the billing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RemoveThingFromThingGroup

Service: AWS IoT

Remove the specified thing from the specified group.

You must specify either a `thingGroupArn` or a `thingGroupName` to identify the thing group and either a `thingArn` or a `thingName` to identify the thing to remove from the thing group.

Requires permission to access the RemoveThingFromThingGroup action.

## Request Syntax

```
PUT /thing-groups/removeThingFromThingGroup HTTP/1.1
Content-type: application/json

{
   "thingArn": "string",
   "thingGroupArn": "string",
   "thingGroupName": "string",
   "thingName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**thingArn**

The ARN of the thing to remove from the group.

Type: String

Required: No

**thingGroupArn**

The group ARN.

Type: String

Required: No

**thingGroupName**

The group name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingName**

The name of the thing to remove from the group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ReplaceTopicRule

Service: AWS IoT

Replaces the rule. You must specify all parameters for the new rule. Creating rules is an administrator-level action. Any user who has permission to create rules will be able to access data processed by the rule.

Requires permission to access the ReplaceTopicRule action.

## Request Syntax

```
PATCH /rules/ruleName HTTP/1.1
Content-type: application/json

{
   "actions": [
      {
         "cloudwatchAlarm": {
            "alarmName": "string",
            "roleArn": "string",
            "stateReason": "string",
            "stateValue": "string"
         },
         "cloudwatchLogs": {
            "batchMode": boolean,
            "logGroupName": "string",
            "roleArn": "string"
         },
         "cloudwatchMetric": {
            "metricName": "string",
            "metricNamespace": "string",
            "metricTimestamp": "string",
            "metricUnit": "string",
            "metricValue": "string",
            "roleArn": "string"
         },
         "dynamoDB": {
            "hashKeyField": "string",
            "hashKeyType": "string",
            "hashKeyValue": "string",
            "operation": "string",
            "payloadField": "string",
            "rangeKeyField": "string",
```

```
            "rangeKeyType": "string",
            "rangeKeyValue": "string",
            "roleArn": "string",
            "tableName": "string"
         },
         "dynamoDBv2": {
            "putItem": {
               "tableName": "string"
            },
            "roleArn": "string"
         },
         "elasticsearch": {
            "endpoint": "string",
            "id": "string",
            "index": "string",
            "roleArn": "string",
            "type": "string"
         },
         "firehose": {
            "batchMode": boolean,
            "deliveryStreamName": "string",
            "roleArn": "string",
            "separator": "string"
         },
         "http": {
            "auth": {
               "sigv4": {
                  "roleArn": "string",
                  "serviceName": "string",
                  "signingRegion": "string"
               }
            },
            "batchConfig": {
               "batchAcrossTopics": boolean,
               "maxBatchOpenMs": number,
               "maxBatchSize": number,
               "maxBatchSizeBytes": number
            },
            "confirmationUrl": "string",
            "enableBatching": boolean,
            "headers": [
               {
                  "key": "string",
                  "value": "string"
```

```
            }
         ],
         "url": "string"
      },
      "iotAnalytics": {
         "batchMode": boolean,
         "channelArn": "string",
         "channelName": "string",
         "roleArn": "string"
      },
      "iotEvents": {
         "batchMode": boolean,
         "inputName": "string",
         "messageId": "string",
         "roleArn": "string"
      },
      "iotSiteWise": {
         "putAssetPropertyValueEntries": [
            {
               "assetId": "string",
               "entryId": "string",
               "propertyAlias": "string",
               "propertyId": "string",
               "propertyValues": [
                  {
                     "quality": "string",
                     "timestamp": {
                        "offsetInNanos": "string",
                        "timeInSeconds": "string"
                     },
                     "value": {
                        "booleanValue": "string",
                        "doubleValue": "string",
                        "integerValue": "string",
                        "stringValue": "string"
                     }
                  }
               ]
            }
         ],
         "roleArn": "string"
      },
      "kafka": {
         "clientProperties": {
```

```
            "string" : "string"
         },
         "destinationArn": "string",
         "headers": [
            {
               "key": "string",
               "value": "string"
            }
         ],
         "key": "string",
         "partition": "string",
         "topic": "string"
      },
      "kinesis": {
         "partitionKey": "string",
         "roleArn": "string",
         "streamName": "string"
      },
      "lambda": {
         "functionArn": "string"
      },
      "location": {
         "deviceId": "string",
         "latitude": "string",
         "longitude": "string",
         "roleArn": "string",
         "timestamp": {
            "unit": "string",
            "value": "string"
         },
         "trackerName": "string"
      },
      "openSearch": {
         "endpoint": "string",
         "id": "string",
         "index": "string",
         "roleArn": "string",
         "type": "string"
      },
      "republish": {
         "headers": {
            "contentType": "string",
            "correlationData": "string",
            "messageExpiry": "string",
```

```
            "payloadFormatIndicator": "string",
            "responseTopic": "string",
            "userProperties": [
               {
                  "key": "string",
                  "value": "string"
               }
            ]
         },
         "qos": number,
         "roleArn": "string",
         "topic": "string"
      },
      "s3": {
         "bucketName": "string",
         "cannedAcl": "string",
         "key": "string",
         "roleArn": "string"
      },
      "salesforce": {
         "token": "string",
         "url": "string"
      },
      "sns": {
         "messageFormat": "string",
         "roleArn": "string",
         "targetArn": "string"
      },
      "sqs": {
         "queueUrl": "string",
         "roleArn": "string",
         "useBase64": boolean
      },
      "stepFunctions": {
         "executionNamePrefix": "string",
         "roleArn": "string",
         "stateMachineName": "string"
      },
      "timestream": {
         "databaseName": "string",
         "dimensions": [
            {
               "name": "string",
               "value": "string"
```

```
            }
         ],
         "roleArn": "string",
         "tableName": "string",
         "timestamp": {
            "unit": "string",
            "value": "string"
         }
      }
   }
],
"awsIotSqlVersion": "string",
"description": "string",
"errorAction": {
   "cloudwatchAlarm": {
      "alarmName": "string",
      "roleArn": "string",
      "stateReason": "string",
      "stateValue": "string"
   },
   "cloudwatchLogs": {
      "batchMode": boolean,
      "logGroupName": "string",
      "roleArn": "string"
   },
   "cloudwatchMetric": {
      "metricName": "string",
      "metricNamespace": "string",
      "metricTimestamp": "string",
      "metricUnit": "string",
      "metricValue": "string",
      "roleArn": "string"
   },
   "dynamoDB": {
      "hashKeyField": "string",
      "hashKeyType": "string",
      "hashKeyValue": "string",
      "operation": "string",
      "payloadField": "string",
      "rangeKeyField": "string",
      "rangeKeyType": "string",
      "rangeKeyValue": "string",
      "roleArn": "string",
      "tableName": "string"
```

```
      },
      "dynamoDBv2": {
         "putItem": {
            "tableName": "string"
         },
         "roleArn": "string"
      },
      "elasticsearch": {
         "endpoint": "string",
         "id": "string",
         "index": "string",
         "roleArn": "string",
         "type": "string"
      },
      "firehose": {
         "batchMode": boolean,
         "deliveryStreamName": "string",
         "roleArn": "string",
         "separator": "string"
      },
      "http": {
         "auth": {
            "sigv4": {
               "roleArn": "string",
               "serviceName": "string",
               "signingRegion": "string"
            }
         },
         "batchConfig": {
            "batchAcrossTopics": boolean,
            "maxBatchOpenMs": number,
            "maxBatchSize": number,
            "maxBatchSizeBytes": number
         },
         "confirmationUrl": "string",
         "enableBatching": boolean,
         "headers": [
            {
               "key": "string",
               "value": "string"
            }
         ],
         "url": "string"
      },
```

```
      "iotAnalytics": {
         "batchMode": boolean,
         "channelArn": "string",
         "channelName": "string",
         "roleArn": "string"
      },
      "iotEvents": {
         "batchMode": boolean,
         "inputName": "string",
         "messageId": "string",
         "roleArn": "string"
      },
      "iotSiteWise": {
         "putAssetPropertyValueEntries": [
            {
               "assetId": "string",
               "entryId": "string",
               "propertyAlias": "string",
               "propertyId": "string",
               "propertyValues": [
                  {
                     "quality": "string",
                     "timestamp": {
                        "offsetInNanos": "string",
                        "timeInSeconds": "string"
                     },
                     "value": {
                        "booleanValue": "string",
                        "doubleValue": "string",
                        "integerValue": "string",
                        "stringValue": "string"
                     }
                  }
               ]
            }
         ],
         "roleArn": "string"
      },
      "kafka": {
         "clientProperties": {
            "string" : "string"
         },
         "destinationArn": "string",
         "headers": [
```

```
            {
               "key": "string",
               "value": "string"
            }
         ],
         "key": "string",
         "partition": "string",
         "topic": "string"
      },
      "kinesis": {
         "partitionKey": "string",
         "roleArn": "string",
         "streamName": "string"
      },
      "lambda": {
         "functionArn": "string"
      },
      "location": {
         "deviceId": "string",
         "latitude": "string",
         "longitude": "string",
         "roleArn": "string",
         "timestamp": {
            "unit": "string",
            "value": "string"
         },
         "trackerName": "string"
      },
      "openSearch": {
         "endpoint": "string",
         "id": "string",
         "index": "string",
         "roleArn": "string",
         "type": "string"
      },
      "republish": {
         "headers": {
            "contentType": "string",
            "correlationData": "string",
            "messageExpiry": "string",
            "payloadFormatIndicator": "string",
            "responseTopic": "string",
            "userProperties": [
               {
```

```
                "key": "string",
                "value": "string"
            }
        ]
    },
    "qos": number,
    "roleArn": "string",
    "topic": "string"
},
"s3": {
    "bucketName": "string",
    "cannedAcl": "string",
    "key": "string",
    "roleArn": "string"
},
"salesforce": {
    "token": "string",
    "url": "string"
},
"sns": {
    "messageFormat": "string",
    "roleArn": "string",
    "targetArn": "string"
},
"sqs": {
    "queueUrl": "string",
    "roleArn": "string",
    "useBase64": boolean
},
"stepFunctions": {
    "executionNamePrefix": "string",
    "roleArn": "string",
    "stateMachineName": "string"
},
"timestream": {
    "databaseName": "string",
    "dimensions": [
        {
            "name": "string",
            "value": "string"
        }
    ],
    "roleArn": "string",
    "tableName": "string",
```

```
            "timestamp": {
               "unit": "string",
               "value": "string"
            }
         }
      },
      "ruleDisabled": boolean,
      "sql": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### ruleName

The name of the rule.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### actions

The actions associated with the rule.

Type: Array of Action objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

### awsIotSqlVersion

The version of the SQL rules engine to use when evaluating the rule.

Type: String

Required: No

**description**

The description of the rule.

Type: String

Required: No

**errorAction**

The action to take when an error occurs.

Type: Action object

Required: No

**ruleDisabled**

Specifies whether the rule is disabled.

Type: Boolean

Required: No

**sql**

The SQL statement used to query the topic. For more information, see AWS IoT SQL Reference in the *AWS IoT Developer Guide*.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**SqlParseException**

The Rule-SQL expression can't be parsed correctly.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SearchIndex

Service: AWS IoT

Searches the specified index.

If a device has never connected to IoT Core or was disconnected for more than 1 hour before fleet indexing's `thingConnectivityIndexingMode` was enabled, the `connectivity` object for this device in the response will have the `connected` field set to `false` with no additional session details.

Requires permission to access the SearchIndex action.

## Request Syntax

```
POST /indices/search HTTP/1.1
Content-type: application/json

{
   "indexName": "string",
   "maxResults": number,
   "nextToken": "string",
   "queryString": "string",
   "queryVersion": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### indexName

The search index name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**maxResults**

The maximum number of results to return per page at one time. This maximum number cannot exceed 100. The response might contain fewer results but will never contain more. You can use `nextToken` to retrieve the next set of results until `nextToken` returns `NULL`.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**nextToken**

The token used to get the next set of results, or `null` if there are no additional results.

Type: String

Required: No

**queryString**

The search query string. For more information about the search query syntax, see Query syntax.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**queryVersion**

The query version.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "thingGroups": [
      {
         "attributes": {
            "string" : "string"
         },
         "parentGroupNames": [ "string" ],
         "thingGroupDescription": "string",
         "thingGroupId": "string",
         "thingGroupName": "string"
      }
   ],
   "things": [
      {
         "attributes": {
            "string" : "string"
         },
         "connectivity": {
            "cleanSession": boolean,
            "clientId": "string",
            "connected": boolean,
            "disconnectReason": "string",
            "keepAliveDuration": number,
            "sessionExpiry": number,
            "timestamp": number
         },
         "deviceDefender": "string",
         "shadow": "string",
         "thingGroupNames": [ "string" ],
         "thingId": "string",
         "thingName": "string",
         "thingTypeName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token used to get the next set of results, or `null` if there are no additional results.

Type: String

**thingGroups**

The thing groups that match the search query.

Type: Array of ThingGroupDocument objects

**things**

The things that match the search query.

Type: Array of ThingDocument objects

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SetDefaultAuthorizer

Service: AWS IoT

Sets the default authorizer. This will be used if a websocket connection is made without specifying an authorizer.

Requires permission to access the SetDefaultAuthorizer action.

## Request Syntax

```
POST /default-authorizer HTTP/1.1
Content-type: application/json

{
   "authorizerName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**authorizerName**

The authorizer name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "authorizerArn": "string",
   "authorizerName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authorizerArn**

The authorizer ARN.

Type: String

Length Constraints: Maximum length of 2048.

**authorizerName**

The authorizer name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceAlreadyExistsException**

The resource already exists.

**message**

The message for the exception.

**resourceArn**

The ARN of the resource that caused the exception.

**resourceId**

The ID of the resource that caused the exception.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SetDefaultPolicyVersion

Service: AWS IoT

Sets the specified version of the specified policy as the policy's default (operative) version. This action affects all certificates to which the policy is attached. To list the principals the policy is attached to, use the ListPrincipalPolicies action.

Requires permission to access the SetDefaultPolicyVersion action.

## Request Syntax

```
PATCH /policies/policyName/version/policyVersionId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**policyName**

The policy name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: Yes

**policyVersionId**

The policy version ID.

Pattern: `[0-9]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SetLoggingOptions

Service: AWS IoT

Sets the logging options.

NOTE: use of this command is not recommended. Use `SetV2LoggingOptions` instead.

Requires permission to access the SetLoggingOptions action.

## Request Syntax

```
POST /loggingOptions HTTP/1.1
Content-type: application/json

{
   "logLevel": "string",
   "roleArn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**logLevel**

The log level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: No

**roleArn**

The ARN of the IAM role that grants access.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SetV2LoggingLevel

Service: AWS IoT

Sets the logging level.

Requires permission to access the SetV2LoggingLevel action.

## Request Syntax

```
POST /v2LoggingLevel HTTP/1.1
Content-type: application/json

{
   "logLevel": "string",
   "logTarget": {
      "targetName": "string",
      "targetType": "string"
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**logLevel**

The log level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: Yes

**logTarget**

The log target.

Type: LogTarget object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**NotConfiguredException**

The resource is not configured.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SetV2LoggingOptions

Service: AWS IoT

Sets the logging options for the V2 logging service.

Requires permission to access the SetV2LoggingOptions action.

## Request Syntax

```
POST /v2LoggingOptions HTTP/1.1
Content-type: application/json

{
   "defaultLogLevel": "string",
   "disableAllLogs": boolean,
   "eventConfigurations": [
      {
         "eventType": "string",
         "logDestination": "string",
         "logLevel": "string"
      }
   ],
   "roleArn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**defaultLogLevel**

The default logging level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: No

**disableAllLogs**

If true all logs are disabled. The default is false.

Type: Boolean

Required: No

**eventConfigurations**

The list of event configurations that override account-level logging.

Type: Array of LogEventConfiguration objects

Required: No

**roleArn**

The ARN of the role that allows IoT to write to Cloudwatch logs.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StartAuditMitigationActionsTask

Service: AWS IoT

Starts a task that applies a set of mitigation actions to the specified target.

Requires permission to access the StartAuditMitigationActionsTask action.

## Request Syntax

```
POST /audit/mitigationactions/tasks/taskId HTTP/1.1
Content-type: application/json

{
   "auditCheckToActionsMapping": {
      "string" : [ "string" ]
   },
   "clientRequestToken": "string",
   "target": {
      "auditCheckToReasonCodeFilter": {
         "string" : [ "string" ]
      },
      "auditTaskId": "string",
      "findingIds": [ "string" ]
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

A unique identifier for the task. You can use this identifier to check the status of the task or to cancel it.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**auditCheckToActionsMapping**

For an audit check, specifies which mitigation actions to apply. Those actions must be defined in your AWS accounts.

Type: String to array of strings map

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**clientRequestToken**

Each audit mitigation task must have a unique client request token. If you try to start a new task with the same token as a task that already exists, an exception occurs. If you omit this value, a unique client request token is generated automatically.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9-_]+$`

Required: Yes

**target**

Specifies the audit findings to which the mitigation actions are applied. You can apply them to a type of audit check, to all findings from an audit, or to a specific set of findings.

Type: AuditMitigationActionsTaskTarget object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "taskId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### taskId

The unique identifier for the audit mitigation task. This matches the `taskId` that you specified in the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

### InvalidRequestException

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**TaskAlreadyExistsException**

This exception occurs if you attempt to start a task with the same task-id as an existing task but with a different clientRequestToken.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)

- AWS SDK for Ruby V3

# StartDetectMitigationActionsTask

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Starts a Device Defender ML Detect mitigation actions task.

Requires permission to access the StartDetectMitigationActionsTask action.

## Request Syntax

```
PUT /detect/mitigationactions/tasks/taskId HTTP/1.1
Content-type: application/json

{
   "actions": [ "string" ],
   "clientRequestToken": "string",
   "includeOnlyActiveViolations": boolean,
   "includeSuppressedAlerts": boolean,
   "target": {
      "behaviorName": "string",
      "securityProfileName": "string",
      "violationIds": [ "string" ]
   },
   "violationEventOccurrenceRange": {
      "endTime": number,
      "startTime": number
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**taskId**

The unique identifier of the task.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**actions**

The actions to be performed when a device has unexpected behavior.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

**clientRequestToken**

Each mitigation action task must have a unique client request token. If you try to create a new task with the same token as a task that already exists, an exception occurs. If you omit this value, AWS SDKs will automatically generate a unique client request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9-_]+$`

Required: Yes

**includeOnlyActiveViolations**

Specifies to list only active violations.

Type: Boolean

Required: No

**includeSuppressedAlerts**

Specifies to include suppressed alerts.

Type: Boolean

Required: No

**target**

Specifies the ML Detect findings to which the mitigation actions are applied.

Type: DetectMitigationActionsTaskTarget object

Required: Yes

**violationEventOccurrenceRange**

Specifies the time period of which violation events occurred between.

Type: ViolationEventOccurrenceRange object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "taskId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**taskId**

The unique identifier of the task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**TaskAlreadyExistsException**

This exception occurs if you attempt to start a task with the same task-id as an existing task but with a different clientRequestToken.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StartOnDemandAuditTask

Service: AWS IoT

Starts an on-demand Device Defender audit.

Requires permission to access the StartOnDemandAuditTask action.

## Request Syntax

```
POST /audit/tasks HTTP/1.1
Content-type: application/json

{
   "targetCheckNames": [ "string" ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**targetCheckNames**

Which checks are performed during the audit. The checks you specify must be enabled for your account or an exception occurs. Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or `UpdateAccountAuditConfiguration` to select which checks are enabled.

Type: Array of strings

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "taskId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**taskId**

The ID of the on-demand audit you started.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StartThingRegistrationTask

Service: AWS IoT

Creates a bulk thing provisioning task.

Requires permission to access the StartThingRegistrationTask action.

## Request Syntax

```
POST /thing-registration-tasks HTTP/1.1
Content-type: application/json

{
   "inputFileBucket": "string",
   "inputFileKey": "string",
   "roleArn": "string",
   "templateBody": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**inputFileBucket**

The S3 bucket that contains the input file.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 256.

Pattern: `[a-zA-Z0-9._-]+`

Required: Yes

**inputFileKey**

The name of input file within the S3 bucket. This file contains a newline delimited JSON file. Each line contains the parameter values to provision one device (thing).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[a-zA-Z0-9!_.*'()-\/]+`

Required: Yes

**roleArn**

The IAM role ARN that grants permission the input file.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**templateBody**

The provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "taskId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**taskId**

The bulk thing provisioning task ID.

Type: String

Length Constraints: Maximum length of 40.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StopThingRegistrationTask

Service: AWS IoT

Cancels a bulk thing provisioning task.

Requires permission to access the StopThingRegistrationTask action.

## Request Syntax

```
PUT /thing-registration-tasks/taskId/cancel HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### taskId

The bulk thing provisioning task ID.

Length Constraints: Maximum length of 40.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# TagResource

Service: AWS IoT

Adds to or modifies the tags of the given resource. Tags are metadata which can be used to manage a resource.

Requires permission to access the TagResource action.

## Request Syntax

```
POST /tags HTTP/1.1
Content-type: application/json

{
   "resourceArn": "string",
   "tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**resourceArn**

The ARN of the resource.

Type: String

Required: Yes

**tags**

The new or modified tags for the resource.

Type: Array of Tag objects

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# TestAuthorization

Service: AWS IoT

Tests if a specified principal is authorized to perform an AWS IoT action on a specified resource. Use this to test and debug the authorization behavior of devices that connect to the AWS IoT device gateway.

Requires permission to access the TestAuthorization action.

## Request Syntax

```
POST /test-authorization?clientId=clientId HTTP/1.1
Content-type: application/json

{
   "authInfos": [
      {
         "actionType": "string",
         "resources": [ "string" ]
      }
   ],
   "cognitoIdentityPoolId": "string",
   "policyNamesToAdd": [ "string" ],
   "policyNamesToSkip": [ "string" ],
   "principal": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientId

The MQTT client ID.

## Request Body

The request accepts the following data in JSON format.

**authInfos**

A list of authorization info objects. Simulating authorization will create a response for each `authInfo` object in the list.

Type: Array of AuthInfo objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

**cognitoIdentityPoolId**

The Cognito identity pool ID.

Type: String

Required: No

**policyNamesToAdd**

When testing custom authorization, the policies specified here are treated as if they are attached to the principal being authorized.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: No

**policyNamesToSkip**

When testing custom authorization, the policies specified here are treated as if they are not attached to the principal being authorized.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: No

**principal**

The principal. Valid principals are CertificateArn (arn:aws:iot:*region*:*accountId*:cert/*certificateId*) and CognitoId (*region*:*id*).

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authResults": [
      {
         "allowed": {
            "policies": [
               {
                  "policyArn": "string",
                  "policyName": "string"
               }
            ]
         },
         "authDecision": "string",
         "authInfo": {
            "actionType": "string",
            "resources": [ "string" ]
         },
         "denied": {
            "explicitDeny": {
               "policies": [
                  {
                     "policyArn": "string",
                     "policyName": "string"
                  }
               ]
            },
            "implicitDeny": {
               "policies": [
                  {
                     "policyArn": "string",
```

```
                    "policyName": "string"
                }
            ]
        }
    },
    "missingContextValues": [ "string" ]
  }
 ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authResults**

The authentication results.

Type: Array of AuthResult objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# TestInvokeAuthorizer

Service: AWS IoT

Tests a custom authorization behavior by invoking a specified custom authorizer. Use this to test and debug the custom authorization behavior of devices that connect to the AWS IoT device gateway.

Requires permission to access the TestInvokeAuthorizer action.

## Request Syntax

```
POST /authorizer/authorizerName/test HTTP/1.1
Content-type: application/json

{
   "httpContext": {
      "headers": {
         "string" : "string"
      },
      "queryString": "string"
   },
   "mqttContext": {
      "clientId": "string",
      "password": blob,
      "username": "string"
   },
   "tlsContext": {
      "serverName": "string"
   },
   "token": "string",
   "tokenSignature": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### authorizerName

The custom authorizer name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**httpContext**

Specifies a test HTTP authorization request.

Type: HttpContext object

Required: No

**mqttContext**

Specifies a test MQTT authorization request.

Type: MqttContext object

Required: No

**tlsContext**

Specifies a test TLS authorization request.

Type: TlsContext object

Required: No

**token**

The token returned by your custom authentication service.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 6144.

Pattern: `[\s\S]*`

Required: No

**tokenSignature**

The signature made with the token and your custom authentication service's private key. This value must be Base-64-encoded.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2560.

Pattern: `[A-Za-z0-9+/]+={0,2}`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "disconnectAfterInSeconds": number,
   "isAuthenticated": boolean,
   "policyDocuments": [ "string" ],
   "principalId": "string",
   "refreshAfterInSeconds": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**disconnectAfterInSeconds**

The number of seconds after which the connection is terminated.

Type: Integer

**isAuthenticated**

True if the token is authenticated, otherwise false.

Type: Boolean

**policyDocuments**

IAM policy documents.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

**principalId**

The principal ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9]+`

**refreshAfterInSeconds**

The number of seconds after which the temporary credentials are refreshed.

Type: Integer

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidResponseException**

The response is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# TransferCertificate

Service: AWS IoT

Transfers the specified certificate to the specified AWS account.

Requires permission to access the TransferCertificate action.

You can cancel the transfer until it is accepted by the recipient.

No notification is sent to the transfer destination's account. The caller is responsible for notifying the transfer target.

The certificate being transferred must not be in the `ACTIVE` state. You can use the UpdateCertificate action to deactivate it.

The certificate must not have any policies attached to it. You can use the DetachPolicy action to detach them.

**Customer managed key behavior:** When you use a customer managed key to encrypt your data and then transfer the certificate to a customer in a different account using the `TransferCertificate` operation, the certificates will no longer be encrypted by their customer managed key configuration. During the transfer process, certificates are encrypted using AWS IoT Core owned keys.

While a certificate is in the **PENDING_TRANSFER** state, it's always protected by AWS IoT Core owned keys, regardless of the customer managed key configuration of either the source or destination account.

Once the transfer is completed through AcceptCertificateTransfer, RejectCertificateTransfer, or CancelCertificateTransfer, the certificate will be protected by the customer managed key configuration of the account that owns the certificate after the transfer operation:

- If the transfer is accepted: The certificate is encrypted by the target account's customer managed key configuration.
- If the transfer is rejected or cancelled: The certificate is protected by the source account's customer managed key configuration.

## Request Syntax

```
PATCH /transfer-certificate/certificateId?targetAwsAccount=targetAwsAccount HTTP/1.1
```

```
Content-type: application/json

{
   "transferMessage": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### certificateId

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

### targetAwsAccount

The AWS account.

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### transferMessage

The transfer message.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "transferredCertificateArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**transferredCertificateArn**

The ARN of the certificate.

Type: String

## Errors

**CertificateStateException**

The certificate operation is not allowed.

**message**

The message for the exception.

HTTP Status Code: 406

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**TransferConflictException**

You can't transfer the certificate because authorization policies are still attached.

**message**

The message for the exception.

HTTP Status Code: 409

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UntagResource

Service: AWS IoT

Removes the given tags (metadata) from the resource.

Requires permission to access the UntagResource action.

## Request Syntax

```
POST /untag HTTP/1.1
Content-type: application/json

{
   "resourceArn": "string",
   "tagKeys": [ "string" ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**resourceArn**

The ARN of the resource.

Type: String

Required: Yes

**tagKeys**

A list of the keys of the tags to be removed from the resource.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateAccountAuditConfiguration

Service: AWS IoT

Configures or reconfigures the Device Defender audit settings for this account. Settings include how audit notifications are sent and which audit checks are enabled or disabled.

Requires permission to access the UpdateAccountAuditConfiguration action.

## Request Syntax

```
PATCH /audit/configuration HTTP/1.1
Content-type: application/json

{
   "auditCheckConfigurations": {
      "string" : {
         "configuration": {
            "string" : "string"
         },
         "enabled": boolean
      }
   },
   "auditNotificationTargetConfigurations": {
      "string" : {
         "enabled": boolean,
         "roleArn": "string",
         "targetArn": "string"
      }
   },
   "roleArn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**auditCheckConfigurations**

Specifies which audit checks are enabled and disabled for this account. Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are currently enabled.

Some data collection might start immediately when certain checks are enabled. When a check is disabled, any data collected so far in relation to the check is deleted.

You cannot disable a check if it's used by any scheduled audit. You must first delete the check from the scheduled audit or delete the scheduled audit itself.

On the first call to `UpdateAccountAuditConfiguration`, this parameter is required and must specify at least one enabled check.

Type: String to AuditCheckConfiguration object map

Required: No

**auditNotificationTargetConfigurations**

Information about the targets to which audit notifications are sent.

Type: String to AuditNotificationTarget object map

Valid Keys: SNS

Required: No

**roleArn**

The Amazon Resource Name (ARN) of the role that grants permission to AWS IoT to access information about your devices, policies, certificates, and other items as required when performing an audit.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateAuditSuppression

Service: AWS IoT

Updates a Device Defender audit suppression.

## Request Syntax

```
PATCH /audit/suppressions/update HTTP/1.1
Content-type: application/json

{
   "checkName": "string",
   "description": "string",
   "expirationDate": number,
   "resourceIdentifier": {
      "account": "string",
      "caCertificateId": "string",
      "clientId": "string",
      "cognitoIdentityPoolId": "string",
      "deviceCertificateArn": "string",
      "deviceCertificateId": "string",
      "iamRoleArn": "string",
      "issuerCertificateIdentifier": {
         "issuerCertificateSerialNumber": "string",
         "issuerCertificateSubject": "string",
         "issuerId": "string"
      },
      "policyVersionIdentifier": {
         "policyName": "string",
         "policyVersionId": "string"
      },
      "roleAliasArn": "string"
   },
   "suppressIndefinitely": boolean
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

Required: Yes

**description**

The description of the audit suppression.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

Required: No

**expirationDate**

The expiration date (epoch timestamp in seconds) that you want the suppression to adhere to.

Type: Timestamp

Required: No

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: Yes

**suppressIndefinitely**

Indicates whether a suppression should exist indefinitely or not.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateAuthorizer

Service: AWS IoT

Updates an authorizer.

Requires permission to access the UpdateAuthorizer action.

## Request Syntax

```
PUT /authorizer/authorizerName HTTP/1.1
Content-type: application/json

{
   "authorizerFunctionArn": "string",
   "enableCachingForHttp": boolean,
   "status": "string",
   "tokenKeyName": "string",
   "tokenSigningPublicKeys": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### authorizerName

The authorizer name.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### authorizerFunctionArn

The ARN of the authorizer's Lambda function.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

**enableCachingForHttp**

When `true`, the result from the authorizer's Lambda function is cached for the time specified in `refreshAfterInSeconds`. The cached result is used while the device reuses the same HTTP connection.

Type: Boolean

Required: No

**status**

The status of the update authorizer request.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Required: No

**tokenKeyName**

The key used to extract the token from the HTTP headers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**tokenSigningPublicKeys**

The public keys used to verify the token signature.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Maximum length of 5120.

Value Pattern: `[\s\S]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authorizerArn": "string",
   "authorizerName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**authorizerArn**

The authorizer ARN.

Type: String

Length Constraints: Maximum length of 2048.

**authorizerName**

The authorizer name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateBillingGroup

Service: AWS IoT

Updates information about the billing group.

Requires permission to access the UpdateBillingGroup action.

## Request Syntax

```
PATCH /billing-groups/billingGroupName HTTP/1.1
Content-type: application/json

{
   "billingGroupProperties": {
      "billingGroupDescription": "string"
   },
   "expectedVersion": number
}
```

## URI Request Parameters

The request uses the following URI parameters.

### billingGroupName

The name of the billing group.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### billingGroupProperties

The properties of the billing group.

Type: BillingGroupProperties object

Required: Yes

**expectedVersion**

The expected version of the billing group. If the version of the billing group does not match the expected version specified in the request, the `UpdateBillingGroup` request is rejected with a `VersionConflictException`.

Type: Long

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**version**

The latest version of the billing group.

Type: Long

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateCACertificate

Service: AWS IoT

Updates a registered CA certificate.

Requires permission to access the UpdateCACertificate action.

## Request Syntax

```
PUT /cacertificate/caCertificateId?
newAutoRegistrationStatus=newAutoRegistrationStatus&newStatus=newStatus HTTP/1.1
Content-type: application/json

{
   "registrationConfig": {
      "roleArn": "string",
      "templateBody": "string",
      "templateName": "string"
   },
   "removeAutoRegistration": boolean
}
```

## URI Request Parameters

The request uses the following URI parameters.

### caCertificateId

The CA certificate identifier.

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

### newAutoRegistrationStatus

The new value for the auto registration status. Valid values are: "ENABLE" or "DISABLE".

Valid Values: `ENABLE | DISABLE`

### newStatus

The updated status of the CA certificate.

**Note:** The status value REGISTER_INACTIVE is deprecated and should not be used.

Valid Values: `ACTIVE | INACTIVE`

## Request Body

The request accepts the following data in JSON format.

**registrationConfig**

Information about the registration configuration.

Type: RegistrationConfig object

Required: No

**removeAutoRegistration**

If true, removes auto registration.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateCertificate

Service: AWS IoT

Updates the status of the specified certificate. This operation is idempotent.

Requires permission to access the UpdateCertificate action.

Certificates must be in the ACTIVE state to authenticate devices that use a certificate to connect to AWS IoT.

Within a few minutes of updating a certificate from the ACTIVE state to any other state, AWS IoT disconnects all devices that used that certificate to connect. Devices cannot use a certificate that is not in the ACTIVE state to reconnect.

## Request Syntax

```
PUT /certificates/certificateId?newStatus=newStatus HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**certificateId**

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: Yes

**newStatus**

The new status.

**Note:** Setting the status to PENDING_TRANSFER or PENDING_ACTIVATION will result in an exception being thrown. PENDING_TRANSFER and PENDING_ACTIVATION are statuses used internally by AWS IoT. They are not intended for developer use.

**Note:** The status value REGISTER_INACTIVE is deprecated and should not be used.

Valid Values: `ACTIVE | INACTIVE | REVOKED | PENDING_TRANSFER | REGISTER_INACTIVE | PENDING_ACTIVATION`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**CertificateStateException**

The certificate operation is not allowed.

**message**

The message for the exception.

HTTP Status Code: 406

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateCertificateProvider

Service: AWS IoT

Updates a certificate provider.

Requires permission to access the UpdateCertificateProvider action.

## Request Syntax

```
PUT /certificate-providers/certificateProviderName HTTP/1.1
Content-type: application/json

{
   "accountDefaultForOperations": [ "string" ],
   "lambdaFunctionArn": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### certificateProviderName

The name of the certificate provider.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### accountDefaultForOperations

A list of the operations that the certificate provider will use to generate certificates. Valid value: `CreateCertificateFromCsr`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `CreateCertificateFromCsr`

Required: No

**lambdaFunctionArn**

The Lambda function ARN that's associated with the certificate provider.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "certificateProviderArn": "string",
   "certificateProviderName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**certificateProviderArn**

The ARN of the certificate provider.

Type: String

Length Constraints: Maximum length of 2048.

**certificateProviderName**

The name of the certificate provider.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateCommand

Service: AWS IoT

Update information about a command or mark a command for deprecation.

## Request Syntax

```
PATCH /commands/commandId HTTP/1.1
Content-type: application/json

{
   "deprecated": boolean,
   "description": "string",
   "displayName": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### commandId

The unique identifier of the command to be updated.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### deprecated

A boolean that you can use to specify whether to deprecate a command.

Type: Boolean

Required: No

### description

A short text description of the command.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]*`

Required: No

### displayName

The new user-friendly name to use in the console for the command.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `[^\p{C}]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "commandId": "string",
   "deprecated": boolean,
   "description": "string",
   "displayName": "string",
   "lastUpdatedAt": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**commandId**

The unique identifier of the command.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

**deprecated**

The boolean that indicates whether the command was deprecated.

Type: Boolean

**description**

The updated text description of the command.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]*`

**displayName**

The updated user-friendly display name in the console for the command.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `[^\p{C}]*`

**lastUpdatedAt**

The date and time (epoch timestamp in seconds) when the command was last updated.

Type: Timestamp

## Errors

### ConflictException

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateCustomMetric

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Updates a Device Defender detect custom metric.

Requires permission to access the UpdateCustomMetric action.

## Request Syntax

```
PATCH /custom-metric/metricName HTTP/1.1
Content-type: application/json

{
   "displayName": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### metricName

The name of the custom metric. Cannot be updated.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### displayName

Field represents a friendly name in the console for the custom metric, it doesn't have to be unique. Don't use this name as the metric identifier in the device metric report. Can be updated.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\p{Graph}\x20]*`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "creationDate": number,
   "displayName": "string",
   "lastModifiedDate": number,
   "metricArn": "string",
   "metricName": "string",
   "metricType": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### creationDate

The creation date of the custom metric in milliseconds since epoch.

Type: Timestamp

**displayName**

A friendly name in the console for the custom metric

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\p{Graph}\x20]*`

**lastModifiedDate**

The time the custom metric was last modified in milliseconds since epoch.

Type: Timestamp

**metricArn**

The Amazon Resource Number (ARN) of the custom metric.

Type: String

**metricName**

The name of the custom metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**metricType**

The type of the custom metric.

> **Important**
>
> The type `number` only takes a single metric value as an input, but while submitting the metrics value in the DeviceMetrics report, it must be passed as an array with a single value.

Type: String

Valid Values: `string-list | ip-address-list | number-list | number`

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateDimension

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Updates the definition for a dimension. You cannot change the type of a dimension after it is created (you can delete it and recreate it).

Requires permission to access the UpdateDimension action.

## Request Syntax

```
PATCH /dimensions/name HTTP/1.1
Content-type: application/json

{
   "stringValues": [ "string" ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### name

A unique identifier for the dimension. Choose something that describes the type and value to make it easy to remember what it does.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**stringValues**

Specifies the value or list of values for the dimension. For `TOPIC_FILTER` dimensions, this is a pattern used to match the MQTT topic (for example, "admin/#").

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "arn": "string",
   "creationDate": number,
   "lastModifiedDate": number,
   "name": "string",
   "stringValues": [ "string" ],
   "type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**arn**

The Amazon Resource Name (ARN)of the created dimension.

Type: String

**creationDate**

The date and time, in milliseconds since epoch, when the dimension was initially created.

Type: Timestamp

**lastModifiedDate**

The date and time, in milliseconds since epoch, when the dimension was most recently updated.

Type: Timestamp

**name**

A unique identifier for the dimension.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**stringValues**

The value or list of values used to scope the dimension. For example, for topic filters, this is the pattern used to match the MQTT topic name.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

**type**

The type of the dimension.

Type: String

Valid Values: `TOPIC_FILTER`

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateDomainConfiguration

Service: AWS IoT

Updates values stored in the domain configuration. Domain configurations for default endpoints can't be updated.

Requires permission to access the UpdateDomainConfiguration action.

## Request Syntax

```
PUT /domainConfigurations/domainConfigurationName HTTP/1.1
Content-type: application/json

{
   "applicationProtocol": "string",
   "authenticationType": "string",
   "authorizerConfig": {
      "allowAuthorizerOverride": boolean,
      "defaultAuthorizerName": "string"
   },
   "clientCertificateConfig": {
      "clientCertificateCallbackArn": "string"
   },
   "domainConfigurationStatus": "string",
   "removeAuthorizerConfig": boolean,
   "serverCertificateConfig": {
      "enableOCSPCheck": boolean,
      "ocspAuthorizedResponderArn": "string",
      "ocspLambdaArn": "string"
   },
   "tlsConfig": {
      "securityPolicy": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### domainConfigurationName

The name of the domain configuration to be updated.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.:-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### applicationProtocol

An enumerated string that specifies the application-layer protocol.

- `SECURE_MQTT` - MQTT over TLS.
- `MQTT_WSS` - MQTT over WebSocket.
- `HTTPS` - HTTP over TLS.
- `DEFAULT` - Use a combination of port and Application Layer Protocol Negotiation (ALPN) to specify application_layer protocol. For more information, see Device communication protocols.

Type: String

Valid Values: `SECURE_MQTT | MQTT_WSS | HTTPS | DEFAULT`

Required: No

### authenticationType

An enumerated string that specifies the authentication type.

- `CUSTOM_AUTH_X509` - Use custom authentication and authorization with additional details from the X.509 client certificate.
- `CUSTOM_AUTH` - Use custom authentication and authorization. For more information, see Custom authentication and authorization.
- `AWS_X509` - Use X.509 client certificates without custom authentication and authorization. For more information, see X.509 client certificates.
- `AWS_SIGV4` - Use AWS Signature Version 4. For more information, see IAM users, groups, and roles.

- `DEFAULT` - Use a combination of port and Application Layer Protocol Negotiation (ALPN) to specify authentication type. For more information, see Device communication protocols.

Type: String

Valid Values: `CUSTOM_AUTH_X509 | CUSTOM_AUTH | AWS_X509 | AWS_SIGV4 | DEFAULT`

Required: No

**authorizerConfig**

An object that specifies the authorization service for a domain.

Type: AuthorizerConfig object

Required: No

**clientCertificateConfig**

An object that specifies the client certificate configuration for a domain.

Type: ClientCertificateConfig object

Required: No

**domainConfigurationStatus**

The status to which the domain configuration should be updated.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

**removeAuthorizerConfig**

Removes the authorization configuration from a domain.

Type: Boolean

Required: No

**serverCertificateConfig**

The server certificate configuration.

Type: ServerCertificateConfig object

Required: No

**tlsConfig**

An object that specifies the TLS configuration for a domain.

Type: TlsConfig object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "domainConfigurationArn": "string",
   "domainConfigurationName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**domainConfigurationArn**

The ARN of the domain configuration that was updated.

Type: String

**domainConfigurationName**

The name of the domain configuration that was updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.:-]+`

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateDynamicThingGroup

Service: AWS IoT

Updates a dynamic thing group.

Requires permission to access the UpdateDynamicThingGroup action.

## Request Syntax

```
PATCH /dynamic-thing-groups/thingGroupName HTTP/1.1
Content-type: application/json

{
   "expectedVersion": number,
   "indexName": "string",
   "queryString": "string",
   "queryVersion": "string",
   "thingGroupProperties": {
      "attributePayload": {
         "attributes": {
            "string" : "string"
         },
         "merge": boolean
      },
      "thingGroupDescription": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingGroupName

The name of the dynamic thing group to update.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**expectedVersion**

The expected version of the dynamic thing group to update.

Type: Long

Required: No

**indexName**

The dynamic thing group index to update.

> **Note**
>
> Currently one index is supported: `AWS_Things`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**queryString**

The dynamic thing group search query string to update.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**queryVersion**

The dynamic thing group query version to update.

> **Note**
>
> Currently one query version is supported: "2017-09-30". If not specified, the query version defaults to this value.

Type: String

Required: No

**thingGroupProperties**

The dynamic thing group properties to update.

Type: ThingGroupProperties object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**version**

The dynamic thing group version.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateEncryptionConfiguration

Service: AWS IoT

Updates the encryption configuration. By default, AWS IoT Core encrypts your data at rest using AWS owned keys. AWS IoT Core also supports symmetric customer managed keys from AWS Key Management Service (AWS KMS). With customer managed keys, you create, own, and manage the KMS keys in your AWS account.

Before using this API, you must set up permissions for AWS IoT Core to access AWS KMS. For more information, see Data encryption at rest in the *AWS IoT Core Developer Guide*.

## Request Syntax

```
PATCH /encryption-configuration HTTP/1.1
Content-type: application/json

{
   "encryptionType": "string",
   "kmsAccessRoleArn": "string",
   "kmsKeyArn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**encryptionType**

The type of the KMS key.

Type: String

Valid Values: `CUSTOMER_MANAGED_KMS_KEY | AWS_OWNED_KMS_KEY`

Required: Yes

**kmsAccessRoleArn**

The Amazon Resource Name (ARN) of the IAM role assumed by AWS IoT Core to call AWS KMS on behalf of the customer.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**kmsKeyArn**

The ARN of the customer managedKMS key.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateEventConfigurations

Service: AWS IoT

Updates the event configurations.

Requires permission to access the UpdateEventConfigurations action.

## Request Syntax

```
PATCH /event-configurations HTTP/1.1
Content-type: application/json

{
   "eventConfigurations": {
      "string" : {
         "Enabled": boolean
      }
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**eventConfigurations**

The new event configuration values.

Type: String to Configuration object map

Valid Keys: THING | THING_GROUP | THING_TYPE | THING_GROUP_MEMBERSHIP | THING_GROUP_HIERARCHY | THING_TYPE_ASSOCIATION | JOB | JOB_EXECUTION | POLICY | CERTIFICATE | CA_CERTIFICATE

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateFleetMetric

Service: AWS IoT

Updates the data for a fleet metric.

Requires permission to access the UpdateFleetMetric action.

## Request Syntax

```
PATCH /fleet-metric/metricName HTTP/1.1
Content-type: application/json

{
   "aggregationField": "string",
   "aggregationType": {
      "name": "string",
      "values": [ "string" ]
   },
   "description": "string",
   "expectedVersion": number,
   "indexName": "string",
   "period": number,
   "queryString": "string",
   "queryVersion": "string",
   "unit": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### metricName

The name of the fleet metric to update.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**aggregationField**

The field to aggregate.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**aggregationType**

The type of the aggregation query.

Type: AggregationType object

Required: No

**description**

The description of the fleet metric.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{Graph}\x20]*`

Required: No

**expectedVersion**

The expected version of the fleet metric record in the registry.

Type: Long

Required: No

**indexName**

The name of the index to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**period**

The time in seconds between fleet metric emissions. Range [60(1 min), 86400(1 day)] and must be multiple of 60.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 86400.

Required: No

**queryString**

The search query string.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**queryVersion**

The version of the query.

Type: String

Required: No

**unit**

Used to support unit transformation such as milliseconds to seconds. The unit must be supported by CW metric.

Type: String

Valid Values: `Seconds | Microseconds | Milliseconds | Bytes | Kilobytes | Megabytes | Gigabytes | Terabytes | Bits | Kilobits | Megabits | Gigabits | Terabits | Percent | Count | Bytes/Second | Kilobytes/Second | Megabytes/Second | Gigabytes/Second | Terabytes/Second | Bits/Second |`

`Kilobits/Second | Megabits/Second | Gigabits/Second | Terabits/Second | Count/Second | None`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**IndexNotReadyException**

The index is not ready.

**message**

The message for the exception.

HTTP Status Code: 400

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidAggregationException**

The aggregation is invalid.

HTTP Status Code: 400

**InvalidQueryException**

The query is invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateIndexingConfiguration

Service: AWS IoT

Updates the search configuration.

Requires permission to access the UpdateIndexingConfiguration action.

## Request Syntax

```
POST /indexing/config HTTP/1.1
Content-type: application/json

{
   "thingGroupIndexingConfiguration": {
      "customFields": [
         {
            "name": "string",
            "type": "string"
         }
      ],
      "managedFields": [
         {
            "name": "string",
            "type": "string"
         }
      ],
      "thingGroupIndexingMode": "string"
   },
   "thingIndexingConfiguration": {
      "customFields": [
         {
            "name": "string",
            "type": "string"
         }
      ],
      "deviceDefenderIndexingMode": "string",
      "filter": {
         "connectivity": {
            "includeSocketInformation": [ "string" ]
         },
         "geoLocations": [
            {
               "name": "string",
```

```
                "order": "string"
             }
          ],
          "namedShadowNames": [ "string" ]
       },
       "managedFields": [
          {
             "name": "string",
             "type": "string"
          }
       ],
       "namedShadowIndexingMode": "string",
       "thingConnectivityIndexingMode": "string",
       "thingIndexingMode": "string"
    }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**thingGroupIndexingConfiguration**

Thing group indexing configuration.

Type: ThingGroupIndexingConfiguration object

Required: No

**thingIndexingConfiguration**

Thing indexing configuration.

Type: ThingIndexingConfiguration object

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateJob

Service: AWS IoT

Updates supported fields of the specified job.

Requires permission to access the UpdateJob action.

## Request Syntax

```
PATCH /jobs/jobId?namespaceId=namespaceId HTTP/1.1
Content-type: application/json

{
   "abortConfig": {
      "criteriaList": [
         {
            "action": "string",
            "failureType": "string",
            "minNumberOfExecutedThings": number,
            "thresholdPercentage": number
         }
      ]
   },
   "description": "string",
   "jobExecutionsRetryConfig": {
      "criteriaList": [
         {
            "failureType": "string",
            "numberOfRetries": number
         }
      ]
   },
   "jobExecutionsRolloutConfig": {
      "exponentialRate": {
         "baseRatePerMinute": number,
         "incrementFactor": number,
         "rateIncreaseCriteria": {
            "numberOfNotifiedThings": number,
            "numberOfSucceededThings": number
         }
      },
      "maximumPerMinute": number
   },
```

```
    "presignedUrlConfig": {
       "expiresInSec": number,
       "roleArn": "string"
    },
    "timeoutConfig": {
       "inProgressTimeoutInMinutes": number
    }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### jobId

The ID of the job to be updated.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

### namespaceId

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/`*`THING_NAME`*`/jobs/`*`JOB_ID`*`/notify-namespace-`*`NAMESPACE_ID`*`/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Pattern: `[a-zA-Z0-9_-]+`

## Request Body

The request accepts the following data in JSON format.

**abortConfig**

Allows you to create criteria to abort a job.

Type: AbortConfig object

Required: No

**description**

A short text description of the job.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**jobExecutionsRetryConfig**

Allows you to create the criteria to retry a job.

Type: JobExecutionsRetryConfig object

Required: No

**jobExecutionsRolloutConfig**

Allows you to create a staged rollout of the job.

Type: JobExecutionsRolloutConfig object

Required: No

**presignedUrlConfig**

Configuration information for pre-signed S3 URLs.

Type: PresignedUrlConfig object

Required: No

**timeoutConfig**

Specifies the amount of time each device has to finish its execution of the job. The timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the time expires, it will be automatically set to `TIMED_OUT`.

Type: TimeoutConfig object

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateMitigationAction

Service: AWS IoT

Updates the definition for the specified mitigation action.

Requires permission to access the UpdateMitigationAction action.

## Request Syntax

```
PATCH /mitigationactions/actions/actionName HTTP/1.1
Content-type: application/json

{
   "actionParams": {
      "addThingsToThingGroupParams": {
         "overrideDynamicGroups": boolean,
         "thingGroupNames": [ "string" ]
      },
      "enableIoTLoggingParams": {
         "logLevel": "string",
         "roleArnForLogging": "string"
      },
      "publishFindingToSnsParams": {
         "topicArn": "string"
      },
      "replaceDefaultPolicyVersionParams": {
         "templateName": "string"
      },
      "updateCACertificateParams": {
         "action": "string"
      },
      "updateDeviceCertificateParams": {
         "action": "string"
      }
   },
   "roleArn": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

**actionName**

The friendly name for the mitigation action. You cannot change the name by using `UpdateMitigationAction`. Instead, you must delete and recreate the mitigation action with the new name.

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**actionParams**

Defines the type of action and the parameters for that action.

Type: MitigationActionParams object

Required: No

**roleArn**

The ARN of the IAM role that is used to apply the mitigation action.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "actionArn": "string",
   "actionId": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**actionArn**

The ARN for the new mitigation action.

Type: String

**actionId**

A unique identifier for the mitigation action.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdatePackage

Service: AWS IoT

Updates the supported fields for a specific software package.

Requires permission to access the UpdatePackage and GetIndexingConfiguration actions.

## Request Syntax

```
PATCH /packages/packageName?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "defaultVersionName": "string",
   "description": "string",
   "unsetDefaultVersion": boolean
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

### packageName

The name of the target software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### defaultVersionName

The name of the default package version.

**Note:** You cannot name a `defaultVersion` and set `unsetDefaultVersion` equal to `true` at the same time.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: No

### description

The package description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

Required: No

### unsetDefaultVersion

Indicates whether you want to remove the named default package version from the software package. Set as `true` to remove the default package version.

**Note:** You cannot name a `defaultVersion` and set `unsetDefaultVersion` equal to `true` at the same time.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdatePackageConfiguration

Service: AWS IoT

Updates the software package configuration.

Requires permission to access the UpdatePackageConfiguration and iam:PassRole actions.

## Request Syntax

```
PATCH /package-configuration?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "versionUpdateByJobsConfig": {
      "enabled": boolean,
      "roleArn": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: `\S{36,64}`

## Request Body

The request accepts the following data in JSON format.

### versionUpdateByJobsConfig

Configuration to manage job's package version reporting. This updates the thing's reserved named shadow that the job targets.

Type: VersionUpdateByJobsConfig object

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdatePackageVersion

Service: AWS IoT

Updates the supported fields for a specific package version.

Requires permission to access the UpdatePackageVersion and GetIndexingConfiguration actions.

## Request Syntax

```
PATCH /packages/packageName/versions/versionName?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "action": "string",
   "artifact": {
      "s3Location": {
         "bucket": "string",
         "key": "string",
         "version": "string"
      }
   },
   "attributes": {
      "string" : "string"
   },
   "description": "string",
   "recipe": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Length Constraints: Minimum length of 36. Maximum length of 64.

Pattern: \S{36,64}

### packageName

The name of the associated software package.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

**versionName**

The name of the target package version.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**action**

The status that the package version should be assigned. For more information, see Package version lifecycle.

Type: String

Valid Values: `PUBLISH | DEPRECATE`

Required: No

**artifact**

The various components that make up a software package version.

Type: PackageVersionArtifact object

Required: No

**attributes**

Metadata that can be used to define a package version's configuration. For example, the Amazon S3 file location, configuration options that are being sent to the device or fleet.

**Note:** Attributes can be updated only when the package version is in a draft state.

The combined size of all the attributes on a package version is limited to 3KB.

Type: String to string map

Key Length Constraints: Minimum length of 1.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

**description**

The package version description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[^\p{C}]+`

Required: No

**recipe**

The inline job document associated with a software package version used for a quick job deployment.

Type: String

Length Constraints: Maximum length of 3072.

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictException**

The request conflicts with the current state of the resource.

**resourceId**

A resource with the same name already exists.

HTTP Status Code: 409

**InternalServerException**

Internal error from the service that indicates an unexpected error or that the service is unavailable.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**ValidationException**

The request is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateProvisioningTemplate

Service: AWS IoT

Updates a provisioning template.

Requires permission to access the UpdateProvisioningTemplate action.

## Request Syntax

```
PATCH /provisioning-templates/templateName HTTP/1.1
Content-type: application/json

{
   "defaultVersionId": number,
   "description": "string",
   "enabled": boolean,
   "preProvisioningHook": {
      "payloadVersion": "string",
      "targetArn": "string"
   },
   "provisioningRoleArn": "string",
   "removePreProvisioningHook": boolean
}
```

## URI Request Parameters

The request uses the following URI parameters.

### templateName

The name of the provisioning template.

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**defaultVersionId**

The ID of the default provisioning template version.

Type: Integer

Required: No

**description**

The description of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[^\p{C}]*`

Required: No

**enabled**

True to enable the provisioning template, otherwise false.

Type: Boolean

Required: No

**preProvisioningHook**

Updates the pre-provisioning hook template. Only supports template of type `FLEET_PROVISIONING`. For more information about provisioning template types, see type.

Type: ProvisioningHook object

Required: No

**provisioningRoleArn**

The ARN of the role associated with the provisioning template. This IoT role grants permission to provision a device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**removePreProvisioningHook**

Removes pre-provisioning hook template.

Type: Boolean

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ConflictingResourceUpdateException**

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateRoleAlias

Service: AWS IoT

Updates a role alias.

Requires permission to access the UpdateRoleAlias action.

> **Important**
>
> The value of `credentialDurationSeconds` must be less than or equal to the maximum session duration of the IAM role that the role alias references. For more information, see Modifying a role maximum session duration (AWS API) from the AWS Identity and Access Management User Guide.

## Request Syntax

```
PUT /role-aliases/roleAlias HTTP/1.1
Content-type: application/json

{
   "credentialDurationSeconds": number,
   "roleArn": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### roleAlias

The role alias to update.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**credentialDurationSeconds**

The number of seconds the credential will be valid.

This value must be less than or equal to the maximum session duration of the IAM role that the role alias references.

Type: Integer

Valid Range: Minimum value of 900. Maximum value of 43200.

Required: No

**roleArn**

The role ARN.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "roleAlias": "string",
   "roleAliasArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**roleAlias**

The role alias.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

**roleAliasArn**

The role alias ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateScheduledAudit

Service: AWS IoT

Updates a scheduled audit, including which checks are performed and how often the audit takes place.

Requires permission to access the UpdateScheduledAudit action.

## Request Syntax

```
PATCH /audit/scheduledaudits/scheduledAuditName HTTP/1.1
Content-type: application/json

{
   "dayOfMonth": "string",
   "dayOfWeek": "string",
   "frequency": "string",
   "targetCheckNames": [ "string" ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### scheduledAuditName

The name of the scheduled audit. (Max. 128 chars)

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### dayOfMonth

The day of the month on which the scheduled audit takes place. This can be 1 through 31 or LAST. This field is required if the `frequency` parameter is set to `MONTHLY`. If days 29-31 are

specified, and the month does not have that many days, the audit takes place on the "LAST" day of the month.

Type: String

Pattern: `^([1-9]|[12][0-9]|3[01])$|^LAST$`

Required: No

**dayOfWeek**

The day of the week on which the scheduled audit takes place. This can be one of `SUN`, `MON`, `TUE`, `WED`, `THU`, `FRI`, or `SAT`. This field is required if the "frequency" parameter is set to `WEEKLY` or `BIWEEKLY`.

Type: String

Valid Values: `SUN | MON | TUE | WED | THU | FRI | SAT`

Required: No

**frequency**

How often the scheduled audit takes place, either `DAILY`, `WEEKLY`, `BIWEEKLY`, or `MONTHLY`. The start time of each audit is determined by the system.

Type: String

Valid Values: `DAILY | WEEKLY | BIWEEKLY | MONTHLY`

Required: No

**targetCheckNames**

Which checks are performed during the scheduled audit. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: Array of strings

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "scheduledAuditArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**scheduledAuditArn**

The ARN of the scheduled audit.

Type: String

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateSecurityProfile

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Updates a Device Defender security profile.

Requires permission to access the UpdateSecurityProfile action.

## Request Syntax

```
PATCH /security-profiles/securityProfileName?expectedVersion=expectedVersion HTTP/1.1
Content-type: application/json

{
   "additionalMetricsToRetain": [ "string" ],
   "additionalMetricsToRetainV2": [
      {
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         }
      }
   ],
   "alertTargets": {
      "string" : {
         "alertTargetArn": "string",
         "roleArn": "string"
      }
   },
   "behaviors": [
      {
         "criteria": {
```

```
            "comparisonOperator": "string",
            "consecutiveDatapointsToAlarm": number,
            "consecutiveDatapointsToClear": number,
            "durationSeconds": number,
            "mlDetectionConfig": {
               "confidenceLevel": "string"
            },
            "statisticalThreshold": {
               "statistic": "string"
            },
            "value": {
               "cidrs": [ "string" ],
               "count": number,
               "number": number,
               "numbers": [ number ],
               "ports": [ number ],
               "strings": [ "string" ]
            }
         },
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         },
         "name": "string",
         "suppressAlerts": boolean
      }
   ],
   "deleteAdditionalMetricsToRetain": boolean,
   "deleteAlertTargets": boolean,
   "deleteBehaviors": boolean,
   "deleteMetricsExportConfig": boolean,
   "metricsExportConfig": {
      "mqttTopic": "string",
      "roleArn": "string"
   },
   "securityProfileDescription": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

**expectedVersion**

The expected version of the security profile. A new version is generated whenever the security profile is updated. If you specify a value that is different from the actual version, a `VersionConflictException` is thrown.

**securityProfileName**

The name of the security profile you want to update.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**additionalMetricsToRetain**

*This parameter has been deprecated.*

*Please use UpdateSecurityProfile:additionalMetricsToRetainV2 instead.*

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's `behaviors`, but it is also retained for any metric specified here. Can be used with custom metrics; cannot be used with dimensions.

Type: Array of strings

Required: No

**additionalMetricsToRetainV2**

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's behaviors, but it is also retained for any metric specified here. Can be used with custom metrics; cannot be used with dimensions.

Type: Array of MetricToRetain objects

Required: No

**alertTargets**

Where the alerts are sent. (Alerts are always sent to the console.)

Type: String to AlertTarget object map

Valid Keys: SNS

Required: No

**behaviors**

Specifies the behaviors that, when violated by a device (thing), cause an alert.

Type: Array of Behavior objects

Array Members: Maximum number of 100 items.

Required: No

**deleteAdditionalMetricsToRetain**

If true, delete all `additionalMetricsToRetain` defined for this security profile. If any `additionalMetricsToRetain` are defined in the current invocation, an exception occurs.

Type: Boolean

Required: No

**deleteAlertTargets**

If true, delete all `alertTargets` defined for this security profile. If any `alertTargets` are defined in the current invocation, an exception occurs.

Type: Boolean

Required: No

**deleteBehaviors**

If true, delete all `behaviors` defined for this security profile. If any `behaviors` are defined in the current invocation, an exception occurs.

Type: Boolean

Required: No

**deleteMetricsExportConfig**

Set the value as true to delete metrics export related configurations.

Type: Boolean

Required: No

**metricsExportConfig**

Specifies the MQTT topic and role ARN required for metric export.

Type: MetricsExportConfig object

Required: No

**securityProfileDescription**

A description of the security profile.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "additionalMetricsToRetain": [ "string" ],
   "additionalMetricsToRetainV2": [
      {
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         }
      }
   ],
```

```
   "alertTargets": {
      "string" : {
         "alertTargetArn": "string",
         "roleArn": "string"
      }
   },
   "behaviors": [
      {
         "criteria": {
            "comparisonOperator": "string",
            "consecutiveDatapointsToAlarm": number,
            "consecutiveDatapointsToClear": number,
            "durationSeconds": number,
            "mlDetectionConfig": {
               "confidenceLevel": "string"
            },
            "statisticalThreshold": {
               "statistic": "string"
            },
            "value": {
               "cidrs": [ "string" ],
               "count": number,
               "number": number,
               "numbers": [ number ],
               "ports": [ number ],
               "strings": [ "string" ]
            }
         },
         "exportMetric": boolean,
         "metric": "string",
         "metricDimension": {
            "dimensionName": "string",
            "operator": "string"
         },
         "name": "string",
         "suppressAlerts": boolean
      }
   ],
   "creationDate": number,
   "lastModifiedDate": number,
   "metricsExportConfig": {
      "mqttTopic": "string",
      "roleArn": "string"
   },
```

```
    "securityProfileArn": "string",
    "securityProfileDescription": "string",
    "securityProfileName": "string",
    "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**additionalMetricsToRetain**

*This parameter has been deprecated.*

*Please use UpdateSecurityProfile:additionalMetricsToRetainV2 instead.*

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the security profile's `behaviors`, but it is also retained for any metric specified here.

Type: Array of strings

**additionalMetricsToRetainV2**

A list of metrics whose data is retained (stored). By default, data is retained for any metric used in the profile's behaviors, but it is also retained for any metric specified here. Can be used with custom metrics; cannot be used with dimensions.

Type: Array of MetricToRetain objects

**alertTargets**

Where the alerts are sent. (Alerts are always sent to the console.)

Type: String to AlertTarget object map

Valid Keys: SNS

**behaviors**

Specifies the behaviors that, when violated by a device (thing), cause an alert.

Type: Array of Behavior objects

Array Members: Maximum number of 100 items.

**creationDate**

The time the security profile was created.

Type: Timestamp

**lastModifiedDate**

The time the security profile was last modified.

Type: Timestamp

**metricsExportConfig**

Specifies the MQTT topic and role ARN required for metric export.

Type: MetricsExportConfig object

**securityProfileArn**

The ARN of the security profile that was updated.

Type: String

**securityProfileDescription**

The description of the security profile.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

**securityProfileName**

The name of the security profile that was updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**version**

The updated version of the security profile.

Type: Long

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateStream

Service: AWS IoT

Updates an existing stream. The stream version will be incremented by one.

Requires permission to access the UpdateStream action.

## Request Syntax

```
PUT /streams/streamId HTTP/1.1
Content-type: application/json

{
   "description": "string",
   "files": [
      {
         "fileId": number,
         "s3Location": {
            "bucket": "string",
            "key": "string",
            "version": "string"
         }
      }
   ],
   "roleArn": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### streamId

The stream ID.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**description**

The description of the stream.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**files**

The files associated with the stream.

Type: Array of StreamFile objects

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: No

**roleArn**

An IAM role that allows the IoT service principal assumes to access your S3 files.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "description": "string",
```

```
    "streamArn": "string",
    "streamId": "string",
    "streamVersion": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**description**

A description of the stream.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

**streamArn**

The stream ARN.

Type: String

**streamId**

The stream ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

**streamVersion**

The stream version.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**LimitExceededException**

A limit has been exceeded.

**message**

The message for the exception.

HTTP Status Code: 410

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateThing

Service: AWS IoT

Updates the data for a thing.

Requires permission to access the UpdateThing action.

## Request Syntax

```
PATCH /things/thingName HTTP/1.1
Content-type: application/json

{
   "attributePayload": {
      "attributes": {
         "string" : "string"
      },
      "merge": boolean
   },
   "expectedVersion": number,
   "removeThingType": boolean,
   "thingTypeName": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The name of the thing to update.

You can't change a thing's name. To change a thing's name, you must create a new thing, give it the new name, and then delete the old thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**attributePayload**

A list of thing attributes, a JSON string containing name-value pairs. For example:

`{\"attributes\":{\"name1\":\"value2\"}}`

This data is used to add new attributes or update existing attributes.

Type: AttributePayload object

Required: No

**expectedVersion**

The expected version of the thing record in the registry. If the version of the record in the registry does not match the expected version specified in the request, the `UpdateThing` request is rejected with a `VersionConflictException`.

Type: Long

Required: No

**removeThingType**

Remove a thing type association. If **true**, the association is removed.

Type: Boolean

Required: No

**thingTypeName**

The name of the thing type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateThingGroup

Service: AWS IoT

Update a thing group.

Requires permission to access the UpdateThingGroup action.

## Request Syntax

```
PATCH /thing-groups/thingGroupName HTTP/1.1
Content-type: application/json

{
   "expectedVersion": number,
   "thingGroupProperties": {
      "attributePayload": {
         "attributes": {
            "string" : "string"
         },
         "merge": boolean
      },
      "thingGroupDescription": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingGroupName

The thing group to update.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**expectedVersion**

The expected version of the thing group. If this does not match the version of the thing group being updated, the update will fail.

Type: Long

Required: No

**thingGroupProperties**

The thing group properties.

Type: ThingGroupProperties object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**version**

The version of the updated thing group.

Type: Long

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**VersionConflictException**

An exception thrown when the version of an entity specified with the `expectedVersion` parameter does not match the latest version in the system.

**message**

The message for the exception.

HTTP Status Code: 409

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateThingGroupsForThing

Service: AWS IoT

Updates the groups to which the thing belongs.

Requires permission to access the UpdateThingGroupsForThing action.

## Request Syntax

```
PUT /thing-groups/updateThingGroupsForThing HTTP/1.1
Content-type: application/json

{
   "overrideDynamicGroups": boolean,
   "thingGroupsToAdd": [ "string" ],
   "thingGroupsToRemove": [ "string" ],
   "thingName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**overrideDynamicGroups**

Override dynamic thing groups with static thing groups when 10-group limit is reached. If a thing belongs to 10 thing groups, and one or more of those groups are dynamic thing groups, adding a thing to a static group removes the thing from the last dynamic group.

Type: Boolean

Required: No

**thingGroupsToAdd**

The groups to which the thing will be added.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingGroupsToRemove**

The groups from which the thing will be removed.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingName**

The thing whose group memberships will be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateThingType

Service: AWS IoT

Updates a thing type.

## Request Syntax

```
PATCH /thing-types/thingTypeName HTTP/1.1
Content-type: application/json

{
   "thingTypeProperties": {
      "mqtt5Configuration": {
         "propagatingAttributes": [
            {
               "connectionAttribute": "string",
               "thingAttribute": "string",
               "userPropertyKey": "string"
            }
         ]
      },
      "searchableAttributes": [ "string" ],
      "thingTypeDescription": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingTypeName

The name of a thing type.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**thingTypeProperties**

The ThingTypeProperties contains information about the thing type including: a thing type description, and a list of searchable thing attribute names.

Type: ThingTypeProperties object

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateTopicRuleDestination

Service: AWS IoT

Updates a topic rule destination. You use this to change the status, endpoint URL, or confirmation URL of the destination.

Requires permission to access the UpdateTopicRuleDestination action.

## Request Syntax

```
PATCH /destinations HTTP/1.1
Content-type: application/json

{
   "arn": "string",
   "status": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**arn**

The ARN of the topic rule destination.

Type: String

Required: Yes

**status**

The status of the topic rule destination. Valid values are:

IN_PROGRESS

A topic rule destination was created but has not been confirmed. You can set `status` to `IN_PROGRESS` by calling `UpdateTopicRuleDestination`. Calling `UpdateTopicRuleDestination` causes a new confirmation challenge to be sent to your confirmation endpoint.

ENABLED

Confirmation was completed, and traffic to this destination is allowed. You can set `status` to `DISABLED` by calling `UpdateTopicRuleDestination`.

DISABLED

Confirmation was completed, and traffic to this destination is not allowed. You can set `status` to `ENABLED` by calling `UpdateTopicRuleDestination`.

ERROR

Confirmation could not be completed, for example if the confirmation timed out. You can call `GetTopicRuleDestination` for details about the error. You can set `status` to `IN_PROGRESS` by calling `UpdateTopicRuleDestination`. Calling `UpdateTopicRuleDestination` causes a new confirmation challenge to be sent to your confirmation endpoint.

Type: String

Valid Values: `ENABLED | IN_PROGRESS | DISABLED | ERROR | DELETING`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### ConflictingResourceUpdateException

A conflicting resource update exception. This exception is thrown when two pending updates cause a conflict.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ValidateSecurityProfileBehaviors

Service: AWS IoT

> **Note**
>
> The AWS IoT Device Defender detect feature will no longer be available to new customers starting August 31, 2026. If you would like to use the detect feature, sign up prior to August 31, 2026. To learn about alternatives to AWS IoT Device Defender detect, see AWS IoT Device Defender detect feature availability change. There is no change to AWS IoT Device Defender audit availability.

Validates a Device Defender security profile behaviors specification.

Requires permission to access the ValidateSecurityProfileBehaviors action.

## Request Syntax

```
POST /security-profile-behaviors/validate HTTP/1.1
Content-type: application/json

{
   "behaviors": [
      {
         "criteria": {
            "comparisonOperator": "string",
            "consecutiveDatapointsToAlarm": number,
            "consecutiveDatapointsToClear": number,
            "durationSeconds": number,
            "mlDetectionConfig": {
               "confidenceLevel": "string"
            },
            "statisticalThreshold": {
               "statistic": "string"
            },
            "value": {
               "cidrs": [ "string" ],
               "count": number,
               "number": number,
               "numbers": [ number ],
               "ports": [ number ],
```

```
                "strings": [ "string" ]
             }
          },
          "exportMetric": boolean,
          "metric": "string",
          "metricDimension": {
             "dimensionName": "string",
             "operator": "string"
          },
          "name": "string",
          "suppressAlerts": boolean
       }
   ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### behaviors

Specifies the behaviors that, when violated by a device (thing), cause an alert.

Type: Array of Behavior objects

Array Members: Maximum number of 100 items.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "valid": boolean,
   "validationErrors": [
      {
```

```
            "errorMessage": "string"
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**valid**

True if the behaviors were valid.

Type: Boolean

**validationErrors**

The list of any errors found in the behaviors.

Type: Array of ValidationError objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

## AWS IoT data

The following actions are supported by AWS IoT data:

- DeleteConnection
- DeleteThingShadow
- GetConnection
- GetRetainedMessage
- GetThingShadow
- ListNamedShadowsForThing

- ListRetainedMessages
- ListSubscriptions
- Publish
- SendDirectMessage
- UpdateThingShadow

# DeleteConnection

Service: AWS IoT data

Disconnects a connected MQTT client from AWS IoT Core. When you disconnect a client, AWS IoT Core closes the client's network connection and optionally cleans the session state.

Requires permission to access the DeleteConnection action.

## Request Syntax

```
DELETE /connections/clientId?
cleanSession=cleanSession&preventWillMessage=preventWillMessage HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### cleanSession

Specifies whether to remove the client's persistent session state when disconnecting. Set to TRUE to delete all session information, including subscriptions and queued messages. Set to FALSE to preserve the session state for persistent sessions. For clean sessions this parameter will be ignored. By default, this is set to FALSE (preserves the session state).

### clientId

The unique identifier of the MQTT client to disconnect. The client ID can't start with a dollar sign ($).

MQTT client IDs must be URL encoded (percent-encoded) when they contain characters that are not valid in HTTP requests, such as spaces, forward slashes (/), and UTF-8 characters.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[^$].*`

Required: Yes

### preventWillMessage

Controls if AWS IoT Core publishes the client's Last Will and Testament (LWT) message upon disconnection. Set to TRUE to prevent publishing the LWT message. Set to FALSE to ensure that LWT is published. By default, this is set to FALSE (LWT message is published).

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**ForbiddenException**

The caller isn't authorized to make the request.

HTTP Status Code: 403

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteThingShadow

Service: AWS IoT data

Deletes the shadow for the specified thing.

Requires permission to access the DeleteThingShadow action.

For more information, see DeleteThingShadow in the AWS IoT Developer Guide.

## Request Syntax

```
DELETE /things/thingName/shadow?name=shadowName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**shadowName**

The name of the shadow.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[$a-zA-Z0-9:_-]+`

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
payload
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following as the HTTP body.

**payload**

The state information, in JSON format.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**UnsupportedDocumentEncodingException**

The document encoding is not supported.

**message**

The message for the exception.

HTTP Status Code: 415

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetConnection

Service: AWS IoT data

Retrieves connection information for the specified MQTT client.

Requires permission to access the GetConnection action.

## Request Syntax

```
GET /connections/clientId?includeSocketInformation=includeSocketInformation HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**clientId**

The unique identifier of the MQTT client to retrieve connection information. The client ID can't start with a dollar sign ($).

MQTT client IDs must be URL encoded (percent-encoded) when they contain characters that are not valid in HTTP requests, such as spaces, forward slashes (/), and UTF-8 characters.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[^$].*`

Required: Yes

**includeSocketInformation**

Specifies if socket information (sourcePort, targetPort, sourceIp, targetIp) should be included in the GetConnection response. Set to TRUE to include socket information. Set to FALSE to omit socket information. By default, this is set to FALSE. See the developer guide for how to authorize this parameter.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "cleanSession": boolean,
   "clientId": "string",
   "connected": boolean,
   "connectedSince": number,
   "disconnectedSince": number,
   "disconnectReason": "string",
   "keepAliveDuration": number,
   "sessionExpiry": number,
   "sourceIp": "string",
   "sourcePort": number,
   "targetIp": "string",
   "targetPort": number,
   "thingName": "string",
   "vpcEndpointId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### cleanSession

Indicates whether the client is using a clean session. Returns `true` for clean sessions or `false` for persistent sessions.

Type: Boolean

### clientId

The unique identifier of the MQTT client. This is the same client ID that was used when the client established the connection.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[^$].*`

**connected**

The connection state of the client. Returns `true` if the client is currently connected, or `false` if the client is not connected.

Type: Boolean

**connectedSince**

Unix timestamp (in milliseconds) indicating when the client connected. Present only when connected is true.

Type: Long

**disconnectedSince**

Unix timestamp (in milliseconds) indicating when the client disconnected. Present only when connected is false. This information is available for 30 minutes after the client disconnects.

Type: Long

**disconnectReason**

The reason for the last disconnection, if the client is currently disconnected. See the developer guide for valid disconnect reasons.

Type: String

**keepAliveDuration**

The keep-alive interval in seconds that the client specified when establishing the connection.

Type: Integer

**sessionExpiry**

The session expiry interval in seconds for the MQTT client connection. This is configured by the user. This value indicates how long the session will remain active after the client disconnects.

Type: Long

**sourceIp**

The IP address of the client that initiated the connection.

Type: String

**sourcePort**

The client's source port.

Type: Integer

**targetIp**

The IP address of the AWS IoT Core endpoint that the client connected to. For clients connected to VPC endpoints, this is the private IP address of the network interface the client is connected to.

Type: String

**targetPort**

The port number of the AWS IoT Core endpoint that the client connected to.

Type: Integer

**thingName**

The name of the thing associated with the principal of the MQTT client, if applicable.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

**vpcEndpointId**

The ID of the VPC endpoint. Present for clients connected to IoT Core via a VPC endpoint.

Type: String

## Errors

### ForbiddenException

The caller isn't authorized to make the request.

HTTP Status Code: 403

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetRetainedMessage

Service: AWS IoT data

Gets the details of a single retained message for the specified topic.

This action returns the message payload of the retained message, which can incur messaging costs. To list only the topic names of the retained messages, call ListRetainedMessages.

Requires permission to access the GetRetainedMessage action.

For more information about messaging costs, see AWS IoT Core pricing - Messaging.

## Request Syntax

```
GET /retainedMessage/topic HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### topic

The topic name of the retained message to retrieve.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "lastModifiedTime": number,
   "payload": blob,
   "qos": number,
   "topic": "string",
   "userProperties": blob
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**lastModifiedTime**

The Epoch date and time, in milliseconds, when the retained message was stored by AWS IoT.

Type: Long

**payload**

The Base64-encoded message payload of the retained message body.

Type: Base64-encoded binary data object

**qos**

The quality of service (QoS) level used to publish the retained message.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1.

**topic**

The topic name to which the retained message was published.

Type: String

**userProperties**

A base64-encoded JSON string that includes an array of JSON objects, or null if the retained message doesn't include any user properties.

The following example `userProperties` parameter is a JSON string that represents two user properties. Note that it will be base64-encoded:

```
[{"deviceName": "alpha"}, {"deviceCnt": "45"}]
```

Type: Base64-encoded binary data object

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetThingShadow

Service: AWS IoT data

Gets the shadow for the specified thing.

Requires permission to access the GetThingShadow action.

For more information, see GetThingShadow in the AWS IoT Developer Guide.

## Request Syntax

```
GET /things/thingName/shadow?name=shadowName HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**shadowName**

The name of the shadow.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[$a-zA-Z0-9:_-]+`

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
payload
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following as the HTTP body.

**payload**

The state information, in JSON format.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**UnsupportedDocumentEncodingException**

The document encoding is not supported.

**message**

The message for the exception.

HTTP Status Code: 415

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListNamedShadowsForThing

Service: AWS IoT data

Lists the shadows for the specified thing.

Requires permission to access the ListNamedShadowsForThing action.

## Request Syntax

```
GET /api/things/shadow/ListNamedShadowsForThing/thingName?
nextToken=nextToken&pageSize=pageSize HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**nextToken**

The token to retrieve the next set of results.

**pageSize**

The result page size.

Valid Range: Minimum value of 1. Maximum value of 100.

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "results": [ "string" ],
   "timestamp": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**results**

The list of shadows for the specified thing.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[$a-zA-Z0-9:_-]+`

**timestamp**

The Epoch date and time the response was generated by AWS IoT.

Type: Long

## Errors

### InternalFailureException

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListRetainedMessages

Service: AWS IoT data

Lists summary information about the retained messages stored for the account.

This action returns only the topic names of the retained messages. It doesn't return any message payloads. Although this action doesn't return a message payload, it can still incur messaging costs.

To get the message payload of a retained message, call GetRetainedMessage with the topic name of the retained message.

Requires permission to access the ListRetainedMessages action.

For more information about messaging costs, see AWS IoT Core pricing - Messaging.

## Request Syntax

```
GET /retainedMessage?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at one time.

Valid Range: Minimum value of 1. Maximum value of 200.

**nextToken**

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "nextToken": "string",
   "retainedTopics": [
      {
         "lastModifiedTime": number,
         "payloadSize": number,
         "qos": number,
         "topic": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token for the next set of results, or null if there are no additional results.

Type: String

**retainedTopics**

A summary list the account's retained messages. The information returned doesn't include the message payloads of the retained messages.

Type: Array of RetainedMessageSummary objects

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListSubscriptions

Service: AWS IoT data

Returns a list of all subscriptions for MQTT clients with active sessions, including offline clients with persistent sessions.

Requires permission to access the ListSubscriptions action.

## Request Syntax

```
GET /connections/clientId/subscriptions?maxResults=maxResults&nextToken=nextToken
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### clientId

The unique identifier of the MQTT client to list subscriptions for. The client ID can't start with a dollar sign ($).

MQTT client IDs must be URL encoded (percent-encoded) when they contain characters that are not valid in HTTP requests, such as spaces, forward slashes (/), and UTF-8 characters.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[^$].*`

Required: Yes

### maxResults

The maximum number of subscriptions to return in a single request. By default, this is set to 20.

Valid Range: Minimum value of 1. Maximum value of 200.

### nextToken

To retrieve the next set of results, the `nextToken` value from a previous response; otherwise **null** to receive the first set of results.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "subscriptions": [
      {
         "qos": number,
         "topicFilter": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

The token to use to get the next set of results, or **null** if there are no additional results.

Type: String

**subscriptions**

A list of topic filters and their associated Quality of Service (QoS) levels that the client is subscribed to.

Type: Array of SubscriptionSummary objects

## Errors

**ForbiddenException**

The caller isn't authorized to make the request.

HTTP Status Code: 403

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# Publish

Service: AWS IoT data

Publishes an MQTT message.

Requires permission to access the Publish action.

For more information about MQTT messages, see MQTT Protocol in the AWS IoT Developer Guide.

For more information about messaging costs, see AWS IoT Core pricing - Messaging.

## Request Syntax

```
POST /topics/topic?
contentType=contentType&messageExpiry=messageExpiry&qos=qos&responseTopic=responseTopic&retain=
 HTTP/1.1
x-amz-mqtt5-user-properties: userProperties
x-amz-mqtt5-payload-format-indicator: payloadFormatIndicator
x-amz-mqtt5-correlation-data: correlationData

payload
```

## URI Request Parameters

The request uses the following URI parameters.

**contentType**

A UTF-8 encoded string that describes the content of the publishing message.

**correlationData**

The base64-encoded binary data used by the sender of the request message to identify which request the response message is for when it's received. `correlationData` is an HTTP header value in the API.

**messageExpiry**

A user-defined integer value that represents the message expiry interval in seconds. If absent, the message doesn't expire. For more information about the limits of `messageExpiry`, see AWS IoT Core message broker and protocol limits and quotas from the AWS Reference Guide.

**payloadFormatIndicator**

An Enum string value that indicates whether the payload is formatted as UTF-8. `payloadFormatIndicator` is an HTTP header value in the API.

Valid Values: `UNSPECIFIED_BYTES | UTF8_DATA`

**qos**

The Quality of Service (QoS) level. The default QoS level is 0.

Valid Range: Minimum value of 0. Maximum value of 1.

**responseTopic**

A UTF-8 encoded string that's used as the topic name for a response message. The response topic is used to describe the topic which the receiver should publish to as part of the request-response flow. The topic must not contain wildcard characters.

**retain**

A Boolean value that determines whether to set the RETAIN flag when the message is published.

Setting the RETAIN flag causes the message to be retained and sent to new subscribers to the topic.

Valid values: `true` | `false`

Default value: `false`

**topic**

The name of the MQTT topic.

Required: Yes

**userProperties**

A JSON string that contains an array of JSON objects. If you don't use AWS SDK or AWS CLI, you must encode the JSON string to base64 format before adding it to the HTTP header. `userProperties` is an HTTP header value in the API.

The following example `userProperties` parameter is a JSON string which represents two User Properties. Note that it needs to be base64-encoded:

```
[{"deviceName": "alpha"}, {"deviceCnt": "45"}]
```

## Request Body

The request accepts the following binary data.

**payload**

The message body. MQTT accepts text, binary, and empty (null) message payloads.

Publishing an empty (null) payload with **retain** = `true` deletes the retained message identified by **topic** from AWS IoT Core.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# SendDirectMessage

Service: AWS IoT data

Sends an MQTT message directly to a specific client identified by its client ID.

`SendDirectMessage` targets a single client ID. The receiving client does not need to subscribe to the topic, but the receiver's policy must allow `iot:Receive` on the specified topic.

Requires permission to access the SendDirectMessage action.

For more information about messaging costs, see AWS IoT Core pricing.

## Request Syntax

```
POST /connections/clientId/messages?
confirmation=confirmation&contentType=contentType&responseTopic=responseTopic&timeout=timeout&t
 HTTP/1.1
x-amz-mqtt5-user-properties: userProperties
x-amz-mqtt5-payload-format-indicator: payloadFormatIndicator
x-amz-mqtt5-correlation-data: correlationData

payload
```

## URI Request Parameters

The request uses the following URI parameters.

### clientId

The unique identifier of the MQTT client to send the message to.

Client IDs must not exceed 128 characters and can't start with a dollar sign ($). MQTT client IDs must be URL encoded (percent-encoded) when they contain characters that are not valid in HTTP requests, such as spaces, forward slashes (/), and UTF-8 characters. For more information, see AWS IoT Core message broker and protocol limits and quotas.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[^$].*`

Required: Yes

**confirmation**

A Boolean value that specifies whether to wait for delivery confirmation from the receiving client.

When set to `true`, the API delivers the message at QoS 1 and waits for the client to send a delivery confirmation (PUBACK) before returning a successful response. If delivery confirmation is not received within the specified `timeout` period, the API returns HTTP 504.

When set to `false`, the API delivers the message at QoS 0 and returns after AWS IoT Core attempts to deliver the message.

Valid values: `true` | `false`

Default value: `false`

**contentType**

The MQTT5 content type property forwarded to the receiving client (for example, `application/json`).

**correlationData**

The base64-encoded binary data used by the sender of the request message to identify which request the response message is for when it's received. `correlationData` is an HTTP header value in the API.

**payloadFormatIndicator**

An `Enum` string value that indicates whether the payload is formatted as UTF-8. `payloadFormatIndicator` is an HTTP header value in the API.

Valid Values: `UNSPECIFIED_BYTES | UTF8_DATA`

**responseTopic**

A UTF-8 encoded string that's used as the topic name for a response message. The response topic describes the topic which the receiver should publish to as part of the request-response flow. The topic must not contain wildcard characters. For more information, see AWS IoT Core message broker and protocol limits and quotas.

**timeout**

An integer that represents the maximum time, in seconds, to wait for a delivery confirmation (PUBACK) from the receiving client after the message has been delivered. This parameter is

only used when `confirmation` is set to `true`. If `confirmation` is `false`, this parameter is ignored.

The total API response time may be higher than this value due to internal processing. Set your HTTP client timeout to a value greater than this parameter.

Valid range: 1 to 15 seconds.

Default value: 5 seconds.

**topic**

The topic of the outbound MQTT Publish message to the receiving client. For more information, see AWS IoT Core message broker and protocol limits and quotas.

Required: Yes

**userProperties**

A JSON string that contains an array of JSON objects. If you don't use AWS SDK or AWS CLI, you must encode the JSON string to base64 format before adding it to the HTTP header. `userProperties` is an HTTP header value in the API.

For MQTT 3.1.1 clients, user properties are silently dropped.

The following example `userProperties` parameter is a JSON string which represents two User Properties. Note that it needs to be base64-encoded:

```
[{"deviceName": "alpha"}, {"deviceCnt": "45"}]
```

## Request Body

The request accepts the following binary data.

**payload**

The message body. MQTT accepts text, binary, and empty (null) message payloads.

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "message": "string",
   "traceId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**message**

The status message indicating the result of the operation.

Type: String

**traceId**

A unique identifier for the request. Include this value when contacting AWS Support for troubleshooting.

Type: String

## Errors

**ForbiddenException**

The caller isn't authorized to make the request.

HTTP Status Code: 403

**GatewayTimeoutException**

The delivery confirmation was not received from the client within the specified timeout period.

**message**

The message for the exception.

HTTP Status Code: 504

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**RequestEntityTooLargeException**

The payload exceeds the maximum size allowed.

**message**

The message for the exception.

HTTP Status Code: 413

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateThingShadow

Service: AWS IoT data

Updates the shadow for the specified thing.

Requires permission to access the UpdateThingShadow action.

For more information, see UpdateThingShadow in the AWS IoT Developer Guide.

## Request Syntax

```
POST /things/thingName/shadow?name=shadowName HTTP/1.1

payload
```

## URI Request Parameters

The request uses the following URI parameters.

**shadowName**

The name of the shadow.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[$a-zA-Z0-9:_-]+`

**thingName**

The name of the thing.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following binary data.

**payload**

The state information, in JSON format.

Required: Yes

## Response Syntax

```
HTTP/1.1 200

payload
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following as the HTTP body.

**payload**

The state information, in JSON format.

## Errors

**ConflictException**

The specified version does not match the version of the document.

**message**

The message for the exception.

HTTP Status Code: 409

**InternalFailureException**

An unexpected error has occurred.

**message**

The message for the exception.

HTTP Status Code: 500

**InvalidRequestException**

The request is not valid.

**message**

The message for the exception.

HTTP Status Code: 400

**MethodNotAllowedException**

The specified combination of HTTP verb and URI is not supported.

**message**

The message for the exception.

HTTP Status Code: 405

**RequestEntityTooLargeException**

The payload exceeds the maximum size allowed.

**message**

The message for the exception.

HTTP Status Code: 413

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message for the exception.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

**message**

The message for the exception.

HTTP Status Code: 401

**UnsupportedDocumentEncodingException**

The document encoding is not supported.

**message**

The message for the exception.

HTTP Status Code: 415

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AWS IoT jobs data

The following actions are supported by AWS IoT jobs data:

- DescribeJobExecution
- GetPendingJobExecutions
- StartCommandExecution
- StartNextPendingJobExecution
- UpdateJobExecution

# DescribeJobExecution

Service: AWS IoT jobs data

Gets details of a job execution.

Requires permission to access the DescribeJobExecution action.

## Request Syntax

```
GET /things/thingName/jobs/jobId?
executionNumber=executionNumber&includeJobDocument=includeJobDocument HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**executionNumber**

Optional. A number that identifies a particular job execution on a particular device. If not specified, the latest job execution is returned.

**includeJobDocument**

Optional. Unless set to false, the response contains the job document. The default is true.

**jobId**

The unique identifier assigned to this job when it was created.

Pattern: `[a-zA-Z0-9_-]+|^\$next`

Required: Yes

**thingName**

The thing name associated with the device the job execution is running on.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "execution": {
      "approximateSecondsBeforeTimedOut": number,
      "executionNumber": number,
      "jobDocument": "string",
      "jobId": "string",
      "lastUpdatedAt": number,
      "queuedAt": number,
      "startedAt": number,
      "status": "string",
      "statusDetails": {
         "string" : "string"
      },
      "thingName": "string",
      "versionNumber": number
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**execution**

Contains data about a job execution.

Type: JobExecution object

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InvalidRequestException**

The contents of the request were invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**TerminalStateException**

The job is in a terminal state.

HTTP Status Code: 410

**ThrottlingException**

The rate exceeds the limit.

**message**

The message associated with the exception.

**payload**

The payload associated with the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetPendingJobExecutions

Service: AWS IoT jobs data

Gets the list of all jobs for a thing that are not in a terminal status.

Requires permission to access the GetPendingJobExecutions action.

## Request Syntax

```
GET /things/thingName/jobs HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The name of the thing that is executing the job.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "inProgressJobs": [
      {
         "executionNumber": number,
         "jobId": "string",
         "lastUpdatedAt": number,
         "queuedAt": number,
         "startedAt": number,
```

```
            "versionNumber": number
        }
    ],
    "queuedJobs": [
        {
            "executionNumber": number,
            "jobId": "string",
            "lastUpdatedAt": number,
            "queuedAt": number,
            "startedAt": number,
            "versionNumber": number
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**inProgressJobs**

A list of JobExecutionSummary objects with status IN_PROGRESS.

Type: Array of JobExecutionSummary objects

**queuedJobs**

A list of JobExecutionSummary objects with status QUEUED.

Type: Array of JobExecutionSummary objects

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InvalidRequestException**

The contents of the request were invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message associated with the exception.

**payload**

The payload associated with the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StartCommandExecution

Service: AWS IoT jobs data

Using the command created with the `CreateCommand` API, start a command execution on a specific device.

> **Note**
>
> The IAM permissions are derived from the `iot:StartCommandExecution` action. For more information on the IAM permissions policy statement, see Start a command execution (AWS CLI) > Sample IAM policy.

## Request Syntax

```
POST /command-executions HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "commandArn": "string",
   "executionTimeoutSeconds": number,
   "parameters": {
      "string" : {
         "B": boolean,
         "BIN": blob,
         "D": number,
         "I": number,
         "L": number,
         "S": "string",
         "UL": "string"
      }
   },
   "targetArn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**clientToken**

The client token is used to implement idempotency. It ensures that the request completes no more than one time. If you retry a request with the same token and the same parameters, the request will complete successfully. However, if you retry the request using the same token but different parameters, an HTTP 409 conflict occurs. If you omit this value, AWS SDKs will automatically generate a unique client request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[\x21-\x7E]+$`

Required: No

**commandArn**

The Amazon Resource Number (ARN) of the command. For example, `arn:aws:iot:<region>:<accountid>:command/<commandName>`

Type: String

Required: Yes

**executionTimeoutSeconds**

Specifies the amount of time in second the device has to finish the command execution. A timer is started as soon as the command execution is created. If the command execution status is not set to another terminal state before the timer expires, it will automatically update to `TIMED_OUT`.

Type: Long

Valid Range: Minimum value of 1.

Required: No

**parameters**

A list of parameters that are required by the `StartCommandExecution` API when performing the command on a device.

Type: String to CommandParameterValue object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 192.

Key Pattern: `^[.$a-zA-Z0-9_-]+$`

Required: No

**targetArn**

The Amazon Resource Number (ARN) of the device where the command execution is occurring.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "executionId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**executionId**

A unique identifier for the command execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

## Errors

### ConflictException

A conflict has occurred when performing the API request.

**resourceId**

A conflict occurred while performing the API request on the resource ID.

HTTP Status Code: 409

### InternalServerException

An internal server error occurred when performing the API request.

HTTP Status Code: 500

### ResourceNotFoundException

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

### ServiceQuotaExceededException

The service quota has been exceeded for this request.

HTTP Status Code: 402

### ThrottlingException

The rate exceeds the limit.

**message**

The message associated with the exception.

**payload**

The payload associated with the exception.

HTTP Status Code: 400

**ValidationException**

A validation error occurred when performing the API request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StartNextPendingJobExecution

Service: AWS IoT jobs data

Gets and starts the next pending (status IN_PROGRESS or QUEUED) job execution for a thing.

Requires permission to access the StartNextPendingJobExecution action.

## Request Syntax

```
PUT /things/thingName/jobs/$next HTTP/1.1
Content-type: application/json

{
   "statusDetails": {
      "string" : "string"
   },
   "stepTimeoutInMinutes": number
}
```

## URI Request Parameters

The request uses the following URI parameters.

### thingName

The name of the thing associated with the device.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### statusDetails

A collection of name/value pairs that describe the status of the job execution. If not specified, the statusDetails are unchanged.

The maximum length of the value in the name/value pair is 1,024 characters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

**stepTimeoutInMinutes**

Specifies the amount of time this device has to finish execution of this job. If the job execution status is not set to a terminal state before this timer expires, or before the timer is reset (by calling `UpdateJobExecution`, setting the status to `IN_PROGRESS`, and specifying a new timeout value in field `stepTimeoutInMinutes`) the job execution status will be automatically set to `TIMED_OUT`. Note that setting the step timeout has no effect on the in progress timeout that may have been specified when the job was created (`CreateJob` using field `timeoutConfig`).

Valid values for this parameter range from 1 to 10080 (1 minute to 7 days).

Type: Long

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "execution": {
      "approximateSecondsBeforeTimedOut": number,
      "executionNumber": number,
      "jobDocument": "string",
      "jobId": "string",
      "lastUpdatedAt": number,
```

```
      "queuedAt": number,
      "startedAt": number,
      "status": "string",
      "statusDetails": {
         "string" : "string"
      },
      "thingName": "string",
      "versionNumber": number
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**execution**

A JobExecution object.

Type: JobExecution object

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InvalidRequestException**

The contents of the request were invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message associated with the exception.

**payload**

The payload associated with the exception.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateJobExecution

Service: AWS IoT jobs data

Updates the status of a job execution.

Requires permission to access the UpdateJobExecution action.

## Request Syntax

```
POST /things/thingName/jobs/jobId HTTP/1.1
Content-type: application/json

{
   "executionNumber": number,
   "expectedVersion": number,
   "includeJobDocument": boolean,
   "includeJobExecutionState": boolean,
   "status": "string",
   "statusDetails": {
      "string" : "string"
   },
   "stepTimeoutInMinutes": number
}
```

## URI Request Parameters

The request uses the following URI parameters.

### jobId

The unique identifier assigned to this job when it was created.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: Yes

### thingName

The name of the thing associated with the device.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**executionNumber**

Optional. A number that identifies a particular job execution on a particular device.

Type: Long

Required: No

**expectedVersion**

Optional. The expected current version of the job execution. Each time you update the job execution, its version is incremented. If the version of the job execution stored in Jobs does not match, the update is rejected with a VersionMismatch error, and an ErrorResponse that contains the current job execution status data is returned. (This makes it unnecessary to perform a separate DescribeJobExecution request in order to obtain the job execution status data.)

Type: Long

Required: No

**includeJobDocument**

Optional. When set to true, the response contains the job document. The default is false.

Type: Boolean

Required: No

**includeJobExecutionState**

Optional. When included and set to true, the response contains the JobExecutionState data. The default is false.

Type: Boolean

Required: No

**status**

The new status for the job execution (IN_PROGRESS, FAILED, SUCCESS, or REJECTED). This must be specified on every update.

Type: String

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

Required: Yes

**statusDetails**

Optional. A collection of name/value pairs that describe the status of the job execution. If not specified, the statusDetails are unchanged.

The maximum length of the value in the name/value pair is 1,024 characters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

**stepTimeoutInMinutes**

Specifies the amount of time this device has to finish execution of this job. If the job execution status is not set to a terminal state before this timer expires, or before the timer is reset (by again calling `UpdateJobExecution`, setting the status to `IN_PROGRESS`, and specifying a new timeout value in this field) the job execution status will be automatically set to `TIMED_OUT`. Note that setting or resetting the step timeout has no effect on the in progress timeout that may have been specified when the job was created (`CreateJob` using field `timeoutConfig`).

Valid values for this parameter range from 1 to 10080 (1 minute to 7 days). A value of -1 is also valid and will cancel the current step timer (created by an earlier use of `UpdateJobExecutionRequest`).

Type: Long

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "executionState": {
      "status": "string",
      "statusDetails": {
         "string" : "string"
      },
      "versionNumber": number
   },
   "jobDocument": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**executionState**

A JobExecutionState object.

Type: JobExecutionState object

**jobDocument**

The contents of the Job Documents.

Type: String

Length Constraints: Maximum length of 32768.

## Errors

**CertificateValidationException**

The certificate is invalid.

**message**

Additional information about the exception.

HTTP Status Code: 400

**InvalidRequestException**

The contents of the request were invalid.

**message**

The message for the exception.

HTTP Status Code: 400

**InvalidStateTransitionException**

An update attempted to change the job execution to a state that is invalid because of the job execution's current state (for example, an attempt to change a request in state SUCCESS to state IN_PROGRESS). In this case, the body of the error message also contains the executionState field.

HTTP Status Code: 409

**ResourceNotFoundException**

The specified resource does not exist.

**message**

The message for the exception.

HTTP Status Code: 404

**ServiceUnavailableException**

The service is temporarily unavailable.

**message**

The message for the exception.

HTTP Status Code: 503

**ThrottlingException**

The rate exceeds the limit.

**message**

The message associated with the exception.

**payload**

The payload associated with the exception.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

## AWS IoT Core Device Advisor

The following actions are supported by AWS IoT Core Device Advisor:

- CreateSuiteDefinition
- DeleteSuiteDefinition
- GetEndpoint
- GetSuiteDefinition
- GetSuiteRun
- GetSuiteRunReport

- ListSuiteDefinitions
- ListSuiteRuns
- ListTagsForResource
- StartSuiteRun
- StopSuiteRun
- TagResource
- UntagResource
- UpdateSuiteDefinition

# CreateSuiteDefinition

Service: AWS IoT Core Device Advisor

Creates a Device Advisor test suite.

Requires permission to access the CreateSuiteDefinition action.

## Request Syntax

```
POST /suiteDefinitions HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "suiteDefinitionConfiguration": {
      "devicePermissionRoleArn": "string",
      "devices": [
         {
            "certificateArn": "string",
            "deviceRoleArn": "string",
            "thingArn": "string"
         }
      ],
      "intendedForQualification": boolean,
      "isLongDurationTest": boolean,
      "protocol": "string",
      "rootGroup": "string",
      "suiteDefinitionName": "string"
   },
   "tags": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**clientToken**

A unique case-sensitive identifier that you can provide to ensure the idempotency of the request. Don't reuse this client token if a new idempotent request is required.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[\u0021-\u007E]+$`

Required: No

**suiteDefinitionConfiguration**

Creates a Device Advisor test suite with suite definition configuration.

Type: SuiteDefinitionConfiguration object

Required: Yes

**tags**

The tags to be attached to the suite definition.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "createdAt": number,
   "suiteDefinitionArn": "string",
   "suiteDefinitionId": "string",
```

```
    "suiteDefinitionName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**createdAt**

The timestamp of when the test suite was created.

Type: Timestamp

**suiteDefinitionArn**

The Amazon Resource Name (ARN) of the test suite.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**suiteDefinitionId**

The UUID of the test suite created.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

**suiteDefinitionName**

The suite definition name of the test suite. This is a required parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

## Errors

### InternalServerException

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DeleteSuiteDefinition

Service: AWS IoT Core Device Advisor

Deletes a Device Advisor test suite.

Requires permission to access the DeleteSuiteDefinition action.

## Request Syntax

```
DELETE /suiteDefinitions/suiteDefinitionId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### suiteDefinitionId

Suite definition ID of the test suite to be deleted.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### InternalServerException

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetEndpoint

Service: AWS IoT Core Device Advisor

Gets information about an Device Advisor endpoint.

## Request Syntax

```
GET /endpoint?
authenticationMethod=authenticationMethod&certificateArn=certificateArn&deviceRoleArn=deviceRol
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**authenticationMethod**

The authentication method used during the device connection.

Valid Values: `X509ClientCertificate | SignatureVersion4`

**certificateArn**

The certificate ARN of the device. This is an optional parameter.

Length Constraints: Minimum length of 20. Maximum length of 2048.

**deviceRoleArn**

The device role ARN of the device. This is an optional parameter.

Length Constraints: Minimum length of 20. Maximum length of 2048.

**thingArn**

The thing ARN of the device. This is an optional parameter.

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "endpoint": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**endpoint**

The response of an Device Advisor endpoint.

Type: String

Length Constraints: Minimum length of 45. Maximum length of 75.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetSuiteDefinition

Service: AWS IoT Core Device Advisor

Gets information about a Device Advisor test suite.

Requires permission to access the GetSuiteDefinition action.

## Request Syntax

```
GET /suiteDefinitions/suiteDefinitionId?suiteDefinitionVersion=suiteDefinitionVersion
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**suiteDefinitionId**

Suite definition ID of the test suite to get.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

**suiteDefinitionVersion**

Suite definition version of the test suite to get.

Length Constraints: Minimum length of 2. Maximum length of 255.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "createdAt": number,
   "lastModifiedAt": number,
```

```
   "latestVersion": "string",
   "suiteDefinitionArn": "string",
   "suiteDefinitionConfiguration": {
      "devicePermissionRoleArn": "string",
      "devices": [
         {
            "certificateArn": "string",
            "deviceRoleArn": "string",
            "thingArn": "string"
         }
      ],
      "intendedForQualification": boolean,
      "isLongDurationTest": boolean,
      "protocol": "string",
      "rootGroup": "string",
      "suiteDefinitionName": "string"
   },
   "suiteDefinitionId": "string",
   "suiteDefinitionVersion": "string",
   "tags": {
      "string" : "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### createdAt

Date (in Unix epoch time) when the suite definition was created.

Type: Timestamp

### lastModifiedAt

Date (in Unix epoch time) when the suite definition was last modified.

Type: Timestamp

### latestVersion

Latest suite definition version of the suite definition.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 255.

**suiteDefinitionArn**

The ARN of the suite definition.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**suiteDefinitionConfiguration**

Suite configuration of the suite definition.

Type: SuiteDefinitionConfiguration object

**suiteDefinitionId**

Suite definition ID of the suite definition.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

**suiteDefinitionVersion**

Suite definition version of the suite definition.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 255.

**tags**

Tags attached to the suite definition.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 1. Maximum length of 256.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetSuiteRun

Service: AWS IoT Core Device Advisor

Gets information about a Device Advisor test suite run.

Requires permission to access the GetSuiteRun action.

## Request Syntax

```
GET /suiteDefinitions/suiteDefinitionId/suiteRuns/suiteRunId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### suiteDefinitionId

Suite definition ID for the test suite run.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

### suiteRunId

Suite run ID for the test suite run.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "endTime": number,
   "errorReason": "string",
```

```
   "startTime": number,
   "status": "string",
   "suiteDefinitionId": "string",
   "suiteDefinitionVersion": "string",
   "suiteRunArn": "string",
   "suiteRunConfiguration": {
      "parallelRun": boolean,
      "primaryDevice": {
         "certificateArn": "string",
         "deviceRoleArn": "string",
         "thingArn": "string"
      },
      "selectedTestList": [ "string" ]
   },
   "suiteRunId": "string",
   "tags": {
      "string" : "string"
   },
   "testResult": {
      "groups": [
         {
            "groupId": "string",
            "groupName": "string",
            "tests": [
               {
                  "endTime": number,
                  "failure": "string",
                  "logUrl": "string",
                  "startTime": number,
                  "status": "string",
                  "testCaseDefinitionId": "string",
                  "testCaseDefinitionName": "string",
                  "testCaseRunId": "string",
                  "testScenarios": [
                     {
                        "failure": "string",
                        "status": "string",
                        "systemMessage": "string",
                        "testCaseScenarioId": "string",
                        "testCaseScenarioType": "string"
                     }
                  ],
                  "warnings": "string"
               }
```

```
            ]
         }
      ]
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**endTime**

Date (in Unix epoch time) when the test suite run ended.

Type: Timestamp

**errorReason**

Error reason for any test suite run failure.

Type: String

**startTime**

Date (in Unix epoch time) when the test suite run started.

Type: Timestamp

**status**

Status for the test suite run.

Type: String

Valid Values: `PASS | FAIL | CANCELED | PENDING | RUNNING | STOPPING | STOPPED | PASS_WITH_WARNINGS | ERROR`

**suiteDefinitionId**

Suite definition ID for the test suite run.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

**suiteDefinitionVersion**

Suite definition version for the test suite run.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 255.

**suiteRunArn**

The ARN of the suite run.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**suiteRunConfiguration**

Suite run configuration for the test suite run.

Type: SuiteRunConfiguration object

**suiteRunId**

Suite run ID for the test suite run.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

**tags**

The tags attached to the suite run.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 1. Maximum length of 256.

**testResult**

Test results for the test suite run.

Type: TestResult object

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# GetSuiteRunReport

Service: AWS IoT Core Device Advisor

Gets a report download link for a successful Device Advisor qualifying test suite run.

Requires permission to access the GetSuiteRunReport action.

## Request Syntax

```
GET /suiteDefinitions/suiteDefinitionId/suiteRuns/suiteRunId/report HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**suiteDefinitionId**

Suite definition ID of the test suite.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

**suiteRunId**

Suite run ID of the test suite run.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "qualificationReportDownloadUrl": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**qualificationReportDownloadUrl**

Download URL of the qualification report.

Type: String

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListSuiteDefinitions

Service: AWS IoT Core Device Advisor

Lists the Device Advisor test suites you have created.

Requires permission to access the ListSuiteDefinitions action.

## Request Syntax

```
GET /suiteDefinitions?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at once.

Valid Range: Minimum value of 1. Maximum value of 50.

**nextToken**

A token used to get the next set of results.

Length Constraints: Maximum length of 2000.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "suiteDefinitionInformationList": [
      {
         "createdAt": number,
         "defaultDevices": [
```

```
            {
               "certificateArn": "string",
               "deviceRoleArn": "string",
               "thingArn": "string"
            }
         ],
         "intendedForQualification": boolean,
         "isLongDurationTest": boolean,
         "protocol": "string",
         "suiteDefinitionId": "string",
         "suiteDefinitionName": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token used to get the next set of results.

Type: String

Length Constraints: Maximum length of 2000.

**suiteDefinitionInformationList**

An array of objects that provide summaries of information about the suite definitions in the list.

Type: Array of SuiteDefinitionInformation objects

## Errors

### InternalServerException

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListSuiteRuns

Service: AWS IoT Core Device Advisor

Lists runs of the specified Device Advisor test suite. You can list all runs of the test suite, or the runs of a specific version of the test suite.

Requires permission to access the ListSuiteRuns action.

## Request Syntax

```
GET /suiteRuns?
maxResults=maxResults&nextToken=nextToken&suiteDefinitionId=suiteDefinitionId&suiteDefinitionVe
 HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**maxResults**

The maximum number of results to return at once.

Valid Range: Minimum value of 1. Maximum value of 50.

**nextToken**

A token to retrieve the next set of results.

Length Constraints: Maximum length of 2000.

**suiteDefinitionId**

Lists the test suite runs of the specified test suite based on suite definition ID.

Length Constraints: Minimum length of 12. Maximum length of 36.

**suiteDefinitionVersion**

Must be passed along with `suiteDefinitionId`. Lists the test suite runs of the specified test suite based on suite definition version.

Length Constraints: Minimum length of 2. Maximum length of 255.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "suiteRunsList": [
      {
         "createdAt": number,
         "endAt": number,
         "failed": number,
         "passed": number,
         "startedAt": number,
         "status": "string",
         "suiteDefinitionId": "string",
         "suiteDefinitionName": "string",
         "suiteDefinitionVersion": "string",
         "suiteRunId": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**nextToken**

A token to retrieve the next set of results.

Type: String

Length Constraints: Maximum length of 2000.

**suiteRunsList**

An array of objects that provide summaries of information about the suite runs in the list.

Type: Array of SuiteRunInformation objects

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTagsForResource

Service: AWS IoT Core Device Advisor

Lists the tags attached to an IoT Device Advisor resource.

Requires permission to access the ListTagsForResource action.

## Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### resourceArn

The resource ARN of the IoT Device Advisor resource. This can be SuiteDefinition ARN or SuiteRun ARN.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "tags": {
      "string" : "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**tags**

The tags attached to the IoT Device Advisor resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 1. Maximum length of 256.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StartSuiteRun

Service: AWS IoT Core Device Advisor

Starts a Device Advisor test suite run.

Requires permission to access the StartSuiteRun action.

## Request Syntax

```
POST /suiteDefinitions/suiteDefinitionId/suiteRuns HTTP/1.1
Content-type: application/json

{
   "suiteDefinitionVersion": "string",
   "suiteRunConfiguration": {
      "parallelRun": boolean,
      "primaryDevice": {
         "certificateArn": "string",
         "deviceRoleArn": "string",
         "thingArn": "string"
      },
      "selectedTestList": [ "string" ]
   },
   "tags": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### suiteDefinitionId

Suite definition ID of the test suite.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**suiteDefinitionVersion**

Suite definition version of the test suite.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 255.

Required: No

**suiteRunConfiguration**

Suite run configuration.

Type: SuiteRunConfiguration object

Required: Yes

**tags**

The tags to be attached to the suite run.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "createdAt": number,
   "endpoint": "string",
```

```
    "suiteRunArn": "string",
    "suiteRunId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**createdAt**

Starts a Device Advisor test suite run based on suite create time.

Type: Timestamp

**endpoint**

The response of an Device Advisor test endpoint.

Type: String

Length Constraints: Minimum length of 45. Maximum length of 75.

**suiteRunArn**

Amazon Resource Name (ARN) of the started suite run.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**suiteRunId**

Suite Run ID of the started suite run.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

## Errors

### ConflictException

Sends a Conflict Exception.

**message**

Sends a Conflict Exception message.

HTTP Status Code: 400

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# StopSuiteRun

Service: AWS IoT Core Device Advisor

Stops a Device Advisor test suite run that is currently running.

Requires permission to access the StopSuiteRun action.

## Request Syntax

```
POST /suiteDefinitions/suiteDefinitionId/suiteRuns/suiteRunId/stop HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**suiteDefinitionId**

Suite definition ID of the test suite run to be stopped.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

**suiteRunId**

Suite run ID of the test suite run to be stopped.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# TagResource

Service: AWS IoT Core Device Advisor

Adds to and modifies existing tags of an IoT Device Advisor resource.

Requires permission to access the TagResource action.

## Request Syntax

```
POST /tags/resourceArn HTTP/1.1
Content-type: application/json

{
   "tags": {
      "string" : "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### resourceArn

The resource ARN of an IoT Device Advisor resource. This can be SuiteDefinition ARN or SuiteRun ARN.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### tags

The tags to be attached to the IoT Device Advisor resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UntagResource

Service: AWS IoT Core Device Advisor

Removes tags from an IoT Device Advisor resource.

Requires permission to access the UntagResource action.

## Request Syntax

```
DELETE /tags/resourceArn?tagKeys=tagKeys HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**resourceArn**

The resource ARN of an IoT Device Advisor resource. This can be SuiteDefinition ARN or SuiteRun ARN.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**tagKeys**

List of tag keys to remove from the IoT Device Advisor resource.

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ResourceNotFoundException**

Sends a Resource Not Found exception.

**message**

Sends a Resource Not Found Exception message.

HTTP Status Code: 404

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UpdateSuiteDefinition

Service: AWS IoT Core Device Advisor

Updates a Device Advisor test suite.

Requires permission to access the UpdateSuiteDefinition action.

## Request Syntax

```
PATCH /suiteDefinitions/suiteDefinitionId HTTP/1.1
Content-type: application/json

{
   "suiteDefinitionConfiguration": {
      "devicePermissionRoleArn": "string",
      "devices": [
         {
            "certificateArn": "string",
            "deviceRoleArn": "string",
            "thingArn": "string"
         }
      ],
      "intendedForQualification": boolean,
      "isLongDurationTest": boolean,
      "protocol": "string",
      "rootGroup": "string",
      "suiteDefinitionName": "string"
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### suiteDefinitionId

Suite definition ID of the test suite to be updated.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

**suiteDefinitionConfiguration**

Updates a Device Advisor test suite with suite definition configuration.

Type: SuiteDefinitionConfiguration object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "createdAt": number,
   "lastUpdatedAt": number,
   "suiteDefinitionArn": "string",
   "suiteDefinitionId": "string",
   "suiteDefinitionName": "string",
   "suiteDefinitionVersion": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**createdAt**

Timestamp of when the test suite was created.

Type: Timestamp

**lastUpdatedAt**

Timestamp of when the test suite was updated.

Type: Timestamp

**suiteDefinitionArn**

Amazon Resource Name (ARN) of the updated test suite.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

**suiteDefinitionId**

Suite definition ID of the updated test suite.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

**suiteDefinitionName**

Updates the suite definition name. This is a required parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

**suiteDefinitionVersion**

Suite definition version of the updated test suite.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 255.

## Errors

**InternalServerException**

Sends an Internal Failure exception.

**message**

Sends an Internal Failure Exception message.

HTTP Status Code: 500

**ValidationException**

Sends a validation exception.

**message**

Sends a Validation Exception message.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

## AWS IoT Secure Tunneling

The following actions are supported by AWS IoT Secure Tunneling:

- CloseTunnel
- DescribeTunnel
- ListTagsForResource
- ListTunnels
- OpenTunnel
- RotateTunnelAccessToken
- TagResource
- UntagResource

# CloseTunnel

Service: AWS IoT Secure Tunneling

Closes a tunnel identified by the unique tunnel id. When a `CloseTunnel` request is received, we close the WebSocket connections between the client and proxy server so no data can be transmitted.

Requires permission to access the CloseTunnel action.

## Request Syntax

```
{
   "delete": boolean,
   "tunnelId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**delete**

When set to true, AWS IoT Secure Tunneling deletes the tunnel data immediately.

Type: Boolean

Required: No

**tunnelId**

The ID of the tunnel to close.

Type: String

Pattern: `[a-zA-Z0-9_\-+=:]{1,128}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### ResourceNotFoundException

Thrown when an operation is attempted on a resource that does not exist.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeTunnel

Service: AWS IoT Secure Tunneling

Gets information about a tunnel identified by the unique tunnel id.

Requires permission to access the DescribeTunnel action.

## Request Syntax

```
{
   "tunnelId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**tunnelId**

The tunnel to describe.

Type: String

Pattern: `[a-zA-Z0-9_\-+=:]{1,128}`

Required: Yes

## Response Syntax

```
{
   "tunnel": {
      "createdAt": number,
      "description": "string",
      "destinationConfig": {
         "services": [ "string" ],
         "thingName": "string"
      },
      "destinationConnectionState": {
```

```
         "lastUpdatedAt": number,
         "status": "string"
      },
      "lastUpdatedAt": number,
      "sourceConnectionState": {
         "lastUpdatedAt": number,
         "status": "string"
      },
      "status": "string",
      "tags": [
         {
            "key": "string",
            "value": "string"
         }
      ],
      "timeoutConfig": {
         "maxLifetimeTimeoutMinutes": number
      },
      "tunnelArn": "string",
      "tunnelId": "string"
   }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**tunnel**

The tunnel being described.

Type: Tunnel object

## Errors

**ResourceNotFoundException**

Thrown when an operation is attempted on a resource that does not exist.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTagsForResource

Service: AWS IoT Secure Tunneling

Lists the tags for the specified resource.

## Request Syntax

```
{
   "resourceArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**resourceArn**

The resource ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

## Response Syntax

```
{
   "tags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**tags**

The tags for the specified resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 200 items.

## Errors

**ResourceNotFoundException**

Thrown when an operation is attempted on a resource that does not exist.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# ListTunnels

Service: AWS IoT Secure Tunneling

List all tunnels for an AWS account. Tunnels are listed by creation time in descending order, newer tunnels will be listed before older tunnels.

Requires permission to access the ListTunnels action.

## Request Syntax

```
{
   "maxResults": number,
   "nextToken": "string",
   "thingName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**maxResults**

The maximum number of results to return at once.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**nextToken**

To retrieve the next set of results, the nextToken value from a previous response; otherwise null to receive the first set of results.

Type: String

Pattern: `[a-zA-Z0-9_=-]{1,4096}`

Required: No

### thingName

The name of the IoT thing associated with the destination device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## Response Syntax

```
{
   "nextToken": "string",
   "tunnelSummaries": [
      {
         "createdAt": number,
         "description": "string",
         "lastUpdatedAt": number,
         "status": "string",
         "tunnelArn": "string",
         "tunnelId": "string"
      }
   ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### nextToken

The token to use to get the next set of results, or null if there are no additional results.

Type: String

Pattern: `[a-zA-Z0-9_=-]{1,4096}`

**tunnelSummaries**

A short description of the tunnels in an AWS account.

Type: Array of TunnelSummary objects

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# OpenTunnel

Service: AWS IoT Secure Tunneling

Creates a new tunnel, and returns two client access tokens for clients to use to connect to the AWS IoT Secure Tunneling proxy server.

Requires permission to access the OpenTunnel action.

## Request Syntax

```
{
   "description": "string",
   "destinationConfig": {
      "services": [ "string" ],
      "thingName": "string"
   },
   "tags": [
      {
         "key": "string",
         "value": "string"
      }
   ],
   "timeoutConfig": {
      "maxLifetimeTimeoutMinutes": number
   }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

### description

A short text description of the tunnel.

Type: String

Pattern: `[^\p{C}]{1,2048}`

Required: No

**destinationConfig**

The destination configuration for the OpenTunnel request.

Type: DestinationConfig object

Required: No

**tags**

A collection of tag metadata.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Required: No

**timeoutConfig**

Timeout configuration for a tunnel.

Type: TimeoutConfig object

Required: No

## Response Syntax

```
{
   "destinationAccessToken": "string",
   "sourceAccessToken": "string",
   "tunnelArn": "string",
   "tunnelId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**destinationAccessToken**

The access token the destination local proxy uses to connect to AWS IoT Secure Tunneling.

Type: String

**sourceAccessToken**

The access token the source local proxy uses to connect to AWS IoT Secure Tunneling.

Type: String

**tunnelArn**

The Amazon Resource Name for the tunnel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

**tunnelId**

A unique alpha-numeric tunnel ID.

Type: String

Pattern: `[a-zA-Z0-9_\-+=:]{1,128}`

## Errors

### LimitExceededException

Thrown when a tunnel limit is exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# RotateTunnelAccessToken

Service: AWS IoT Secure Tunneling

Revokes the current client access token (CAT) and returns new CAT for clients to use when reconnecting to secure tunneling to access the same tunnel.

Requires permission to access the RotateTunnelAccessToken action.

> **Note**
>
> Rotating the CAT doesn't extend the tunnel duration. For example, say the tunnel duration is 12 hours and the tunnel has already been open for 4 hours. When you rotate the access tokens, the new tokens that are generated can only be used for the remaining 8 hours.

## Request Syntax

```
{
   "clientMode": "string",
   "destinationConfig": {
      "services": [ "string" ],
      "thingName": "string"
   },
   "tunnelId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**clientMode**

The mode of the client that will use the client token, which can be either the source or destination, or both source and destination.

Type: String

Valid Values: `SOURCE | DESTINATION | ALL`

Required: Yes

**destinationConfig**

The destination configuration. You can not use `DestinationConfig` with source `clientMode`.

Type: DestinationConfig object

Required: No

**tunnelId**

The tunnel for which you want to rotate the access tokens.

Type: String

Pattern: `[a-zA-Z0-9_\-+=:]{1,128}`

Required: Yes

## Response Syntax

```
{
   "destinationAccessToken": "string",
   "sourceAccessToken": "string",
   "tunnelArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**destinationAccessToken**

The client access token that the destination local proxy uses to connect to AWS IoT Secure Tunneling.

Type: String

**sourceAccessToken**

The client access token that the source local proxy uses to connect to AWS IoT Secure Tunneling.

Type: String

**tunnelArn**

The Amazon Resource Name for the tunnel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

## Errors

**ResourceNotFoundException**

Thrown when an operation is attempted on a resource that does not exist.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# TagResource

Service: AWS IoT Secure Tunneling

A resource tag.

## Request Syntax

```
{
   "resourceArn": "string",
   "tags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**resourceArn**

The ARN of the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

**tags**

The tags for the resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### ResourceNotFoundException

Thrown when an operation is attempted on a resource that does not exist.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# UntagResource

Service: AWS IoT Secure Tunneling

Removes a tag from a resource.

## Request Syntax

```
{
   "resourceArn": "string",
   "tagKeys": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

**resourceArn**

The resource ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

**tagKeys**

The keys of the tags to remove.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

### ResourceNotFoundException

Thrown when an operation is attempted on a resource that does not exist.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# Data Types

The following data types are supported by AWS IoT:

- AbortConfig
- AbortCriteria
- Action
- ActiveViolation
- AddThingsToThingGroupParams
- AggregationType
- AlertTarget
- Allowed
- AssetPropertyTimestamp
- AssetPropertyValue
- AssetPropertyVariant
- AttributePayload
- AuditCheckConfiguration
- AuditCheckDetails
- AuditFinding
- AuditMitigationActionExecutionMetadata
- AuditMitigationActionsTaskMetadata
- AuditMitigationActionsTaskTarget
- AuditNotificationTarget
- AuditSuppression
- AuditTaskMetadata
- AuthInfo
- AuthorizerConfig
- AuthorizerDescription
- AuthorizerSummary
- AuthResult
- AwsJobAbortConfig

- AwsJobAbortCriteria
- AwsJobExecutionsRolloutConfig
- AwsJobExponentialRolloutRate
- AwsJobPresignedUrlConfig
- AwsJobRateIncreaseCriteria
- AwsJobTimeoutConfig
- AwsJsonSubstitutionCommandPreprocessorConfig
- BatchConfig
- Behavior
- BehaviorCriteria
- BehaviorModelTrainingSummary
- BillingGroupMetadata
- BillingGroupProperties
- Bucket
- BucketsAggregationType
- CACertificate
- CACertificateDescription
- Certificate
- CertificateDescription
- CertificateProviderSummary
- CertificateValidity
- ClientCertificateConfig
- CloudwatchAlarmAction
- CloudwatchLogsAction
- CloudwatchMetricAction
- CodeSigning
- CodeSigningCertificateChain
- CodeSigningSignature
- CommandExecutionResult
- CommandExecutionSummary

- CommandParameter
- CommandParameterValue
- CommandParameterValueComparisonOperand
- CommandParameterValueCondition
- CommandParameterValueNumberRange
- CommandPayload
- CommandPreprocessor
- CommandSummary
- Configuration
- ConfigurationDetails
- ConnectivityFilter
- CustomCodeSigning
- Denied
- Destination
- DetectMitigationActionExecution
- DetectMitigationActionsTaskStatistics
- DetectMitigationActionsTaskSummary
- DetectMitigationActionsTaskTarget
- DocumentParameter
- DomainConfigurationSummary
- DynamoDBAction
- DynamoDBv2Action
- EffectivePolicy
- ElasticsearchAction
- EnableIoTLoggingParams
- ErrorInfo
- ExplicitDeny
- ExponentialRolloutRate
- Field
- FileLocation

- FirehoseAction
- FleetMetricNameAndArn
- GeoLocationTarget
- GroupNameAndArn
- HttpAction
- HttpActionHeader
- HttpAuthorization
- HttpContext
- HttpUrlDestinationConfiguration
- HttpUrlDestinationProperties
- HttpUrlDestinationSummary
- ImplicitDeny
- IndexingFilter
- IotAnalyticsAction
- IotEventsAction
- IotSiteWiseAction
- IssuerCertificateIdentifier
- Job
- JobExecution
- JobExecutionsRetryConfig
- JobExecutionsRolloutConfig
- JobExecutionStatusDetails
- JobExecutionSummary
- JobExecutionSummaryForJob
- JobExecutionSummaryForThing
- JobProcessDetails
- JobSummary
- JobTemplateSummary
- KafkaAction
- KafkaActionHeader

- KeyPair
- KinesisAction
- LambdaAction
- LocationAction
- LocationTimestamp
- LogEventConfiguration
- LoggingOptionsPayload
- LogTarget
- LogTargetConfiguration
- MachineLearningDetectionConfig
- MaintenanceWindow
- ManagedJobTemplateSummary
- MetricDatum
- MetricDimension
- MetricsExportConfig
- MetricToRetain
- MetricValue
- MitigationAction
- MitigationActionIdentifier
- MitigationActionParams
- Mqtt5Configuration
- MqttContext
- MqttHeaders
- NonCompliantResource
- OpenSearchAction
- OTAUpdateFile
- OTAUpdateInfo
- OTAUpdateSummary
- OutgoingCertificate
- PackageSummary

- PackageVersionArtifact
- PackageVersionSummary
- PercentPair
- Policy
- PolicyVersion
- PolicyVersionIdentifier
- PresignedUrlConfig
- PrincipalThingObject
- PropagatingAttribute
- ProvisioningHook
- ProvisioningTemplateSummary
- ProvisioningTemplateVersionSummary
- PublishFindingToSnsParams
- PutAssetPropertyValueEntry
- PutItemInput
- RateIncreaseCriteria
- RegistrationConfig
- RelatedResource
- ReplaceDefaultPolicyVersionParams
- RepublishAction
- ResourceIdentifier
- RetryCriteria
- RoleAliasDescription
- S3Action
- S3Destination
- S3Location
- SalesforceAction
- Sbom
- SbomValidationResultSummary
- ScheduledAuditMetadata

- ScheduledJobRollout
- SchedulingConfig
- SecurityProfileIdentifier
- SecurityProfileTarget
- SecurityProfileTargetMapping
- ServerCertificateConfig
- ServerCertificateSummary
- SigningProfileParameter
- SigV4Authorization
- SnsAction
- SqsAction
- StartSigningJobParameter
- StatisticalThreshold
- Statistics
- StatusReason
- StepFunctionsAction
- Stream
- StreamFile
- StreamInfo
- StreamSummary
- Tag
- TaskStatistics
- TaskStatisticsForAuditCheck
- TermsAggregation
- ThingAttribute
- ThingConnectivity
- ThingDocument
- ThingGroupDocument
- ThingGroupIndexingConfiguration
- ThingGroupMetadata

- ThingGroupProperties
- ThingIndexingConfiguration
- ThingPrincipalObject
- ThingTypeDefinition
- ThingTypeMetadata
- ThingTypeProperties
- TimeFilter
- TimeoutConfig
- TimestreamAction
- TimestreamDimension
- TimestreamTimestamp
- TlsConfig
- TlsContext
- TopicRule
- TopicRuleDestination
- TopicRuleDestinationConfiguration
- TopicRuleDestinationSummary
- TopicRuleListItem
- TopicRulePayload
- TransferData
- UpdateCACertificateParams
- UpdateDeviceCertificateParams
- UserProperty
- ValidationError
- VersionUpdateByJobsConfig
- ViolationEvent
- ViolationEventAdditionalInfo
- ViolationEventOccurrenceRange
- VpcDestinationConfiguration
- VpcDestinationProperties

- VpcDestinationSummary

The following data types are supported by AWS IoT data:

- RetainedMessageSummary
- SubscriptionSummary

The following data types are supported by AWS IoT jobs data:

- CommandParameterValue
- JobExecution
- JobExecutionState
- JobExecutionSummary

The following data types are supported by AWS IoT Core Device Advisor:

- DeviceUnderTest
- GroupResult
- SuiteDefinitionConfiguration
- SuiteDefinitionInformation
- SuiteRunConfiguration
- SuiteRunInformation
- TestCaseRun
- TestCaseScenario
- TestResult

The following data types are supported by AWS IoT Secure Tunneling:

- ConnectionState
- DestinationConfig
- Tag
- TimeoutConfig
- Tunnel

- TunnelSummary

# AWS IoT

The following data types are supported by AWS IoT:

- AbortConfig
- AbortCriteria
- Action
- ActiveViolation
- AddThingsToThingGroupParams
- AggregationType
- AlertTarget
- Allowed
- AssetPropertyTimestamp
- AssetPropertyValue
- AssetPropertyVariant
- AttributePayload
- AuditCheckConfiguration
- AuditCheckDetails
- AuditFinding
- AuditMitigationActionExecutionMetadata
- AuditMitigationActionsTaskMetadata
- AuditMitigationActionsTaskTarget
- AuditNotificationTarget
- AuditSuppression
- AuditTaskMetadata
- AuthInfo
- AuthorizerConfig
- AuthorizerDescription
- AuthorizerSummary

- AuthResult
- AwsJobAbortConfig
- AwsJobAbortCriteria
- AwsJobExecutionsRolloutConfig
- AwsJobExponentialRolloutRate
- AwsJobPresignedUrlConfig
- AwsJobRateIncreaseCriteria
- AwsJobTimeoutConfig
- AwsJsonSubstitutionCommandPreprocessorConfig
- BatchConfig
- Behavior
- BehaviorCriteria
- BehaviorModelTrainingSummary
- BillingGroupMetadata
- BillingGroupProperties
- Bucket
- BucketsAggregationType
- CACertificate
- CACertificateDescription
- Certificate
- CertificateDescription
- CertificateProviderSummary
- CertificateValidity
- ClientCertificateConfig
- CloudwatchAlarmAction
- CloudwatchLogsAction
- CloudwatchMetricAction
- CodeSigning
- CodeSigningCertificateChain
- CodeSigningSignature

- CommandExecutionResult
- CommandExecutionSummary
- CommandParameter
- CommandParameterValue
- CommandParameterValueComparisonOperand
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- CommandParameterValueNumberRange
- CommandPayload
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- DetectMitigationActionsTaskSummary
- DetectMitigationActionsTaskTarget
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- Field
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- HttpUrlDestinationProperties
- HttpUrlDestinationSummary
- ImplicitDeny
- IndexingFilter
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- IotEventsAction
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- Job
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- JobExecutionsRolloutConfig
- JobExecutionStatusDetails
- JobExecutionSummary
- JobExecutionSummaryForJob
- JobExecutionSummaryForThing
- JobProcessDetails
- JobSummary
- JobTemplateSummary

- KafkaAction
- KafkaActionHeader
- KeyPair
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- LambdaAction
- LocationAction
- LocationTimestamp
- LogEventConfiguration
- LoggingOptionsPayload
- LogTarget
- LogTargetConfiguration
- MachineLearningDetectionConfig
- MaintenanceWindow
- ManagedJobTemplateSummary
- MetricDatum
- MetricDimension
- MetricsExportConfig
- MetricToRetain
- MetricValue
- MitigationAction
- MitigationActionIdentifier
- MitigationActionParams
- Mqtt5Configuration
- MqttContext
- MqttHeaders
- NonCompliantResource
- OpenSearchAction
- OTAUpdateFile
- OTAUpdateInfo
- OTAUpdateSummary

- OutgoingCertificate
- PackageSummary
- PackageVersionArtifact
- PackageVersionSummary
- PercentPair
- Policy
- PolicyVersion
- PolicyVersionIdentifier
- PresignedUrlConfig
- PrincipalThingObject
- PropagatingAttribute
- ProvisioningHook
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- ProvisioningTemplateVersionSummary
- PublishFindingToSnsParams
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- RateIncreaseCriteria
- RegistrationConfig
- RelatedResource
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- RepublishAction
- ResourceIdentifier
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- RoleAliasDescription
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- S3Destination
- S3Location
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- Sbom

- SbomValidationResultSummary
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- ScheduledJobRollout
- SchedulingConfig
- SecurityProfileIdentifier
- SecurityProfileTarget
- SecurityProfileTargetMapping
- ServerCertificateConfig
- ServerCertificateSummary
- SigningProfileParameter
- SigV4Authorization
- SnsAction
- SqsAction
- StartSigningJobParameter
- StatisticalThreshold
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- ThingConnectivity
- ThingDocument
- ThingGroupDocument

- ThingGroupIndexingConfiguration
- ThingGroupMetadata
- ThingGroupProperties
- ThingIndexingConfiguration
- ThingPrincipalObject
- ThingTypeDefinition
- ThingTypeMetadata
- ThingTypeProperties
- TimeFilter
- TimeoutConfig
- TimestreamAction
- TimestreamDimension
- TimestreamTimestamp
- TlsConfig
- TlsContext
- TopicRule
- TopicRuleDestination
- TopicRuleDestinationConfiguration
- TopicRuleDestinationSummary
- TopicRuleListItem
- TopicRulePayload
- TransferData
- UpdateCACertificateParams
- UpdateDeviceCertificateParams
- UserProperty
- ValidationError
- VersionUpdateByJobsConfig
- ViolationEvent
- ViolationEventAdditionalInfo
- ViolationEventOccurrenceRange

- VpcDestinationConfiguration
- VpcDestinationProperties
- VpcDestinationSummary

# AbortConfig

Service: AWS IoT

The criteria that determine when and how a job abort takes place.

## Contents

### criteriaList

The list of criteria that determine when and how to abort the job.

Type: Array of AbortCriteria objects

Array Members: Minimum number of 1 item.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AbortCriteria

Service: AWS IoT

The criteria that determine when and how a job abort takes place.

## Contents

**action**

The type of job action to take to initiate the job abort.

Type: String

Valid Values: `CANCEL`

Required: Yes

**failureType**

The type of job execution failures that can initiate a job abort.

Type: String

Valid Values: `FAILED | REJECTED | TIMED_OUT | ALL`

Required: Yes

**minNumberOfExecutedThings**

The minimum number of things which must receive job execution notifications before the job can be aborted.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

**thresholdPercentage**

The minimum percentage of job execution failures that must occur to initiate the job abort.

AWS IoT Core supports up to two digits after the decimal (for example, 10.9 and 10.99, but not 10.999).

Type: Double

Valid Range: Maximum value of 100.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Action

Service: AWS IoT

Describes the actions associated with a rule.

## Contents

**cloudwatchAlarm**

Change the state of a CloudWatch alarm.

Type: CloudwatchAlarmAction object

Required: No

**cloudwatchLogs**

Send data to CloudWatch Logs.

Type: CloudwatchLogsAction object

Required: No

**cloudwatchMetric**

Capture a CloudWatch metric.

Type: CloudwatchMetricAction object

Required: No

**dynamoDB**

Write to a DynamoDB table.

Type: DynamoDBAction object

Required: No

**dynamoDBv2**

Write to a DynamoDB table. This is a new version of the DynamoDB action. It allows you to write each attribute in an MQTT message payload into a separate DynamoDB column.

Type: DynamoDBv2Action object

Required: No

**elasticsearch**

Write data to an Amazon OpenSearch Service domain.

> **Note**
>
> The `Elasticsearch` action can only be used by existing rule actions. To create a new rule action or to update an existing rule action, use the `OpenSearch` rule action instead. For more information, see OpenSearchAction.

Type: ElasticsearchAction object

Required: No

**firehose**

Write to an Amazon Kinesis Firehose stream.

Type: FirehoseAction object

Required: No

**http**

Send data to an HTTPS endpoint.

Type: HttpAction object

Required: No

**iotAnalytics**

Sends message data to an AWS IoT Analytics channel.

Type: IotAnalyticsAction object

Required: No

**iotEvents**

Sends an input to an AWS IoT Events detector.

Type: IotEventsAction object

Required: No

**iotSiteWise**

Sends data from the MQTT message that triggered the rule to AWS IoT SiteWise asset properties.

Type: IotSiteWiseAction object

Required: No

**kafka**

Send messages to an Amazon Managed Streaming for Apache Kafka (Amazon MSK) or self-managed Apache Kafka cluster.

Type: KafkaAction object

Required: No

**kinesis**

Write data to an Amazon Kinesis stream.

Type: KinesisAction object

Required: No

**lambda**

Invoke a Lambda function.

Type: LambdaAction object

Required: No

**location**

The Amazon Location Service rule action sends device location updates from an MQTT message to an Amazon Location tracker resource.

Type: LocationAction object

Required: No

**openSearch**

Write data to an Amazon OpenSearch Service domain.

Type: OpenSearchAction object

Required: No

**republish**

Publish to another MQTT topic.

Type: RepublishAction object

Required: No

**s3**

Write to an Amazon S3 bucket.

Type: S3Action object

Required: No

**salesforce**

Send a message to a Salesforce IoT Cloud Input Stream.

Type: SalesforceAction object

Required: No

**sns**

Publish to an Amazon SNS topic.

Type: SnsAction object

Required: No

**sqs**

Publish to an Amazon SQS queue.

Type: SqsAction object

Required: No

**stepFunctions**

Starts execution of a Step Functions state machine.

Type: StepFunctionsAction object

Required: No

**timestream**

The Timestream rule action writes attributes (measures) from an MQTT message into an Amazon Timestream table. For more information, see the Timestream topic rule action documentation.

Type: TimestreamAction object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ActiveViolation

Service: AWS IoT

Information about an active Device Defender security profile behavior violation.

## Contents

**behavior**

The behavior that is being violated.

Type: Behavior object

Required: No

**lastViolationTime**

The time the most recent violation occurred.

Type: Timestamp

Required: No

**lastViolationValue**

The value of the metric (the measurement) that caused the most recent violation.

Type: MetricValue object

Required: No

**securityProfileName**

The security profile with the behavior is in violation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingName**

The name of the thing responsible for the active violation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**verificationState**

The verification state of the violation (detect alarm).

Type: String

Valid Values: `FALSE_POSITIVE | BENIGN_POSITIVE | TRUE_POSITIVE | UNKNOWN`

Required: No

**verificationStateDescription**

The description of the verification state of the violation.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[^\p{Cntrl}]*`

Required: No

**violationEventAdditionalInfo**

The details of a violation event.

Type: ViolationEventAdditionalInfo object

Required: No

**violationId**

The ID of the active violation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

**violationStartTime**

The time the violation started.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AddThingsToThingGroupParams

Service: AWS IoT

Parameters used when defining a mitigation action that move a set of things to a thing group.

## Contents

**thingGroupNames**

The list of groups to which you want to add the things that triggered the mitigation action. You can add a thing to a maximum of 10 groups, but you can't add a thing to more than one group in the same hierarchy.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**overrideDynamicGroups**

Specifies if this mitigation action can move the things that triggered the mitigation action even if they are part of one or more dynamic thing groups.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AggregationType

Service: AWS IoT

The type of aggregation queries.

## Contents

**name**

The name of the aggregation type.

Type: String

Valid Values: `Statistics | Percentiles | Cardinality`

Required: Yes

**values**

A list of the values of aggregation types.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 12.

Pattern: `[a-zA-Z0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AlertTarget

Service: AWS IoT

A structure containing the alert target ARN and the role ARN.

## Contents

**alertTargetArn**

The Amazon Resource Name (ARN) of the notification target to which alerts are sent.

Type: String

Required: Yes

**roleArn**

The ARN of the role that grants permission to send alerts to the notification target.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Allowed

Service: AWS IoT

Contains information that allowed the authorization.

## Contents

### policies

A list of policies that allowed the authentication.

Type: Array of Policy objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AssetPropertyTimestamp

Service: AWS IoT

An asset property timestamp entry containing the following information.

## Contents

**timeInSeconds**

A string that contains the time in seconds since epoch. Accepts substitution templates.

Type: String

Required: Yes

**offsetInNanos**

Optional. A string that contains the nanosecond time offset. Accepts substitution templates.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AssetPropertyValue

Service: AWS IoT

An asset property value entry containing the following information.

## Contents

**timestamp**

The asset property value timestamp.

Type: AssetPropertyTimestamp object

Required: Yes

**value**

The value of the asset property.

Type: AssetPropertyVariant object

Required: Yes

**quality**

Optional. A string that describes the quality of the value. Accepts substitution templates. Must be `GOOD`, `BAD`, or `UNCERTAIN`.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AssetPropertyVariant

Service: AWS IoT

Contains an asset property value (of a single type).

## Contents

**booleanValue**

Optional. A string that contains the boolean value (`true` or `false`) of the value entry. Accepts substitution templates.

Type: String

Required: No

**doubleValue**

Optional. A string that contains the double value of the value entry. Accepts substitution templates.

Type: String

Required: No

**integerValue**

Optional. A string that contains the integer value of the value entry. Accepts substitution templates.

Type: String

Required: No

**stringValue**

Optional. The string value of the value entry. Accepts substitution templates.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AttributePayload

Service: AWS IoT

The attribute payload.

## Contents

**attributes**

A JSON string containing up to three key-value pair in JSON format. For example:

`{\"attributes\":{\"string1\":\"string2\"}}`

Type: String to string map

Key Length Constraints: Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Value Length Constraints: Maximum length of 800.

Value Pattern: `[a-zA-Z0-9_.,@/:#=\[\]-]*`

Required: No

**merge**

Specifies whether the list of attributes provided in the `AttributePayload` is merged with the attributes stored in the registry, instead of overwriting them.

To remove an attribute, call `UpdateThing` with an empty attribute value.

> **Note**
>
> The `merge` attribute is only valid when calling `UpdateThing` or `UpdateThingGroup`.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditCheckConfiguration

Service: AWS IoT

Which audit checks are enabled and disabled for this account.

## Contents

**configuration**

A structure containing the configName and corresponding configValue for configuring audit checks.

Type: String to string map

Valid Keys: `CERT_AGE_THRESHOLD_IN_DAYS | CERT_EXPIRATION_THRESHOLD_IN_DAYS`

Value Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

**enabled**

True if this audit check is enabled for this account.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditCheckDetails

Service: AWS IoT

Information about the audit check.

## Contents

**checkCompliant**

True if the check is complete and found all resources compliant.

Type: Boolean

Required: No

**checkRunStatus**

The completion status of this check. One of "IN_PROGRESS", "WAITING_FOR_DATA_COLLECTION", "CANCELED", "COMPLETED_COMPLIANT", "COMPLETED_NON_COMPLIANT", or "FAILED".

Type: String

Valid Values: `IN_PROGRESS | WAITING_FOR_DATA_COLLECTION | CANCELED | COMPLETED_COMPLIANT | COMPLETED_NON_COMPLIANT | FAILED`

Required: No

**errorCode**

The code of any error encountered when this check is performed during this audit. One of "INSUFFICIENT_PERMISSIONS" or "AUDIT_CHECK_DISABLED".

Type: String

Required: No

**message**

The message associated with any error encountered when this check is performed during this audit.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**nonCompliantResourcesCount**

The number of resources that were found noncompliant during the check.

Type: Long

Required: No

**suppressedNonCompliantResourcesCount**

Describes how many of the non-compliant resources created during the evaluation of an audit check were marked as suppressed.

Type: Long

Required: No

**totalResourcesCount**

The number of resources on which the check was performed.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditFinding

Service: AWS IoT

The findings (results) of the audit.

## Contents

**checkName**

The audit check that generated this result.

Type: String

Required: No

**findingId**

A unique identifier for this set of audit findings. This identifier is used to apply mitigation tasks to one or more sets of findings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**findingTime**

The time the result (finding) was discovered.

Type: Timestamp

Required: No

**isSuppressed**

Indicates whether the audit finding was suppressed or not during reporting.

Type: Boolean

Required: No

**nonCompliantResource**

The resource that was found to be noncompliant with the audit check.

Type: NonCompliantResource object

Required: No

**reasonForNonCompliance**

The reason the resource was noncompliant.

Type: String

Required: No

**reasonForNonComplianceCode**

A code that indicates the reason that the resource was noncompliant.

Type: String

Required: No

**relatedResources**

The list of related resources.

Type: Array of RelatedResource objects

Required: No

**severity**

The severity of the result (finding).

Type: String

Valid Values: `CRITICAL | HIGH | MEDIUM | LOW`

Required: No

**taskId**

The ID of the audit that generated this result (finding).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

**taskStartTime**

The time the audit started.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditMitigationActionExecutionMetadata

Service: AWS IoT

Returned by ListAuditMitigationActionsTask, this object contains information that describes a mitigation action that has been started.

## Contents

**actionId**

The unique identifier for the mitigation action being applied by the task.

Type: String

Required: No

**actionName**

The friendly name of the mitigation action being applied by the task.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**endTime**

The date and time when the task was completed or canceled. Blank if the task is still running.

Type: Timestamp

Required: No

**errorCode**

If an error occurred, the code that indicates which type of error occurred.

Type: String

Required: No

**findingId**

The unique identifier for the findings to which the task and associated mitigation action are applied.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**message**

If an error occurred, a message that describes the error.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**startTime**

The date and time when the task was started.

Type: Timestamp

Required: No

**status**

The current status of the task being executed.

Type: String

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED | SKIPPED | PENDING`

Required: No

**taskId**

The unique identifier for the task that applies the mitigation action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditMitigationActionsTaskMetadata

Service: AWS IoT

Information about an audit mitigation actions task that is returned by `ListAuditMitigationActionsTasks`.

## Contents

**startTime**

The time at which the audit mitigation actions task was started.

Type: Timestamp

Required: No

**taskId**

The unique identifier for the task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**taskStatus**

The current state of the audit mitigation actions task.

Type: String

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditMitigationActionsTaskTarget

Service: AWS IoT

Used in MitigationActionParams, this information identifies the target findings to which the mitigation actions are applied. Only one entry appears.

## Contents

**auditCheckToReasonCodeFilter**

Specifies a filter in the form of an audit check and set of reason codes that identify the findings from the audit to which the audit mitigation actions task apply.

Type: String to array of strings map

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: No

**auditTaskId**

If the task will apply a mitigation action to findings from a specific audit, this value uniquely identifies the audit.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

**findingIds**

If the task will apply a mitigation action to one or more listed findings, this value uniquely identifies those findings.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditNotificationTarget

Service: AWS IoT

Information about the targets to which audit notifications are sent.

## Contents

**enabled**

True if notifications to the target are enabled.

Type: Boolean

Required: No

**roleArn**

The ARN of the role that grants permission to send notifications to the target.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**targetArn**

The ARN of the target (SNS topic) to which audit notifications are sent.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditSuppression

Service: AWS IoT

Filters out specific findings of a Device Defender audit.

## Contents

**checkName**

An audit check name. Checks must be enabled for your account. (Use `DescribeAccountAuditConfiguration` to see the list of all checks, including those that are enabled or use `UpdateAccountAuditConfiguration` to select which checks are enabled.)

Type: String

Required: Yes

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: Yes

**description**

The description of the audit suppression.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

Required: No

**expirationDate**

The expiration date (epoch timestamp in seconds) that you want the suppression to adhere to.

Type: Timestamp

Required: No

**suppressIndefinitely**

Indicates whether a suppression should exist indefinitely or not.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuditTaskMetadata

Service: AWS IoT

The audits that were performed.

## Contents

**taskId**

The ID of this audit.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

**taskStatus**

The status of this audit. One of "IN_PROGRESS", "COMPLETED", "FAILED", or "CANCELED".

Type: String

Valid Values: `IN_PROGRESS | COMPLETED | FAILED | CANCELED`

Required: No

**taskType**

The type of this audit. One of "ON_DEMAND_AUDIT_TASK" or "SCHEDULED_AUDIT_TASK".

Type: String

Valid Values: `ON_DEMAND_AUDIT_TASK | SCHEDULED_AUDIT_TASK`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuthInfo

Service: AWS IoT

A collection of authorization information.

## Contents

**resources**

The resources for which the principal is being authorized to perform the specified action.

Type: Array of strings

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: Yes

**actionType**

The type of action for which the principal is being authorized.

Type: String

Valid Values: `PUBLISH | SUBSCRIBE | RECEIVE | CONNECT`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuthorizerConfig

Service: AWS IoT

An object that specifies the authorization service for a domain.

## Contents

**allowAuthorizerOverride**

A Boolean that specifies whether the domain configuration's authorization service can be overridden.

Type: Boolean

Required: No

**defaultAuthorizerName**

The name of the authorization service for a domain configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuthorizerDescription

Service: AWS IoT

The authorizer description.

## Contents

**authorizerArn**

The authorizer ARN.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**authorizerFunctionArn**

The authorizer's Lambda function ARN.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

**authorizerName**

The authorizer name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: No

**creationDate**

The UNIX timestamp of when the authorizer was created.

Type: Timestamp

Required: No

**enableCachingForHttp**

When `true`, the result from the authorizer's Lambda function is cached for the time specified in `refreshAfterInSeconds`. The cached result is used while the device reuses the same HTTP connection.

Type: Boolean

Required: No

**lastModifiedDate**

The UNIX timestamp of when the authorizer was last updated.

Type: Timestamp

Required: No

**signingDisabled**

Specifies whether AWS IoT validates the token signature in an authorization request.

Type: Boolean

Required: No

**status**

The status of the authorizer.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Required: No

**tokenKeyName**

The key used to extract the token from the HTTP headers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**tokenSigningPublicKeys**

The public keys used to validate the token signature returned by your custom authentication service.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Maximum length of 5120.

Value Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuthorizerSummary

Service: AWS IoT

The authorizer summary.

## Contents

**authorizerArn**

The authorizer ARN.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**authorizerName**

The authorizer name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AuthResult

Service: AWS IoT

The authorizer result.

## Contents

**allowed**

The policies and statements that allowed the specified action.

Type: Allowed object

Required: No

**authDecision**

The final authorization decision of this scenario. Multiple statements are taken into account when determining the authorization decision. An explicit deny statement can override multiple allow statements.

Type: String

Valid Values: `ALLOWED | EXPLICIT_DENY | IMPLICIT_DENY`

Required: No

**authInfo**

Authorization information.

Type: AuthInfo object

Required: No

**denied**

The policies and statements that denied the specified action.

Type: Denied object

Required: No

**missingContextValues**

Contains any missing context values found while evaluating policy.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobAbortConfig

Service: AWS IoT

The criteria that determine when and how a job abort takes place.

## Contents

### abortCriteriaList

The list of criteria that determine when and how to abort the job.

Type: Array of AwsJobAbortCriteria objects

Array Members: Minimum number of 1 item.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobAbortCriteria

Service: AWS IoT

The criteria that determine when and how a job abort takes place.

## Contents

**action**

The type of job action to take to initiate the job abort.

Type: String

Valid Values: `CANCEL`

Required: Yes

**failureType**

The type of job execution failures that can initiate a job abort.

Type: String

Valid Values: `FAILED | REJECTED | TIMED_OUT | ALL`

Required: Yes

**minNumberOfExecutedThings**

The minimum number of things which must receive job execution notifications before the job can be aborted.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

**thresholdPercentage**

The minimum percentage of job execution failures that must occur to initiate the job abort.

AWS IoT Core supports up to two digits after the decimal (for example, 10.9 and 10.99, but not 10.999).

Type: Double

Valid Range: Maximum value of 100.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobExecutionsRolloutConfig

Service: AWS IoT

Configuration for the rollout of OTA updates.

## Contents

**exponentialRate**

The rate of increase for a job rollout. This parameter allows you to define an exponential rate increase for a job rollout.

Type: AwsJobExponentialRolloutRate object

Required: No

**maximumPerMinute**

The maximum number of OTA update job executions started per minute.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobExponentialRolloutRate

Service: AWS IoT

The rate of increase for a job rollout. This parameter allows you to define an exponential rate increase for a job rollout.

## Contents

**baseRatePerMinute**

The minimum number of things that will be notified of a pending job, per minute, at the start of the job rollout. This is the initial rate of the rollout.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: Yes

**incrementFactor**

The rate of increase for a job rollout. The number of things notified is multiplied by this factor.

Type: Double

Required: Yes

**rateIncreaseCriteria**

The criteria to initiate the increase in rate of rollout for a job.

AWS IoT Core supports up to one digit after the decimal (for example, 1.5, but not 1.55).

Type: AwsJobRateIncreaseCriteria object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobPresignedUrlConfig

Service: AWS IoT

Configuration information for pre-signed URLs. Valid when `protocols` contains HTTP.

## Contents

**expiresInSec**

How long (in seconds) pre-signed URLs are valid. Valid values are 60 - 3600, the default value is 1800 seconds. Pre-signed URLs are generated when a request for the job document is received.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobRateIncreaseCriteria

Service: AWS IoT

The criteria to initiate the increase in rate of rollout for a job.

## Contents

**numberOfNotifiedThings**

When this number of things have been notified, it will initiate an increase in the rollout rate.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**numberOfSucceededThings**

When this number of things have succeeded in their job execution, it will initiate an increase in the rollout rate.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJobTimeoutConfig

Service: AWS IoT

Specifies the amount of time each device has to finish its execution of the job. A timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the timer expires, it will be automatically set to `TIMED_OUT`.

## Contents

### inProgressTimeoutInMinutes

Specifies the amount of time, in minutes, this device has to finish execution of this job. The timeout interval can be anywhere between 1 minute and 7 days (1 to 10080 minutes). The in progress timer can't be updated and will apply to all job executions for the job. Whenever a job execution remains in the IN_PROGRESS status for longer than this interval, the job execution will fail and switch to the terminal `TIMED_OUT` status.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AwsJsonSubstitutionCommandPreprocessorConfig

Service: AWS IoT

Configures the command to treat the `payloadTemplate` as a JSON document for preprocessing. This preprocessor substitutes placeholders with parameter values to generate the command execution request payload.

## Contents

**outputFormat**

Converts the command preprocessor result to the format defined by this parameter, before sending it to the device.

Type: String

Valid Values: `JSON` | `CBOR`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# BatchConfig

Service: AWS IoT

Configuration settings for batching.

## Contents

### batchAcrossTopics

Whether to allow batching messages from different MQTT topics into a single HTTP request. By default, only messages from the same topic are batched together. The default value is `false`.

> **Note**
>
> When `batchAcrossTopics` is enabled, the error payload format changes: the `topic` field moves from the top level to inside each entry in the `payloadsWithMetadata` array, since each message in the batch may originate from a different topic.

> **Note**
>
> Messages are always batched within the scope of the same account, rule name, target HTTP endpoint URL, and billing group. Messages that differ in any of these attributes are never combined into the same batch, regardless of the `batchAcrossTopics` setting.

Type: Boolean

Required: No

### maxBatchOpenMs

The maximum amount of time (in milliseconds) that an outgoing call waits for other calls with which it batches messages of the same type. The higher the setting, the longer the latency of the batched HTTP Action will be.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 200.

Required: No

**maxBatchSize**

The maximum number of messages that are batched together in a single action execution.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 10.

Required: No

**maxBatchSizeBytes**

Maximum size of a message batch, in bytes.

Type: Integer

Valid Range: Minimum value of 100. Maximum value of 131072.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Behavior

Service: AWS IoT

A Device Defender security profile behavior.

## Contents

**name**

The name you've given to the behavior.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**criteria**

The criteria that determine if a device is behaving normally in regard to the `metric`.

> **Note**
>
> In the AWS IoT console, you can choose to be sent an alert through Amazon SNS when AWS IoT Device Defender detects that a device is behaving anomalously.

Type: BehaviorCriteria object

Required: No

**exportMetric**

Value indicates exporting metrics related to the behavior when it is true.

Type: Boolean

Required: No

**metric**

What is measured by the behavior.

Type: String

Required: No

**metricDimension**

The dimension for a metric in your behavior. For example, using a `TOPIC_FILTER` dimension, you can narrow down the scope of the metric to only MQTT topics where the name matches the pattern specified in the dimension. This can't be used with custom metrics.

Type: MetricDimension object

Required: No

**suppressAlerts**

Suppresses alerts.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# BehaviorCriteria

Service: AWS IoT

The criteria by which the behavior is determined to be normal.

## Contents

**comparisonOperator**

The operator that relates the thing measured (`metric`) to the criteria (containing a `value` or `statisticalThreshold`). Valid operators include:

- `string-list`: `in-set` and `not-in-set`
- `number-list`: `in-set` and `not-in-set`
- `ip-address-list`: `in-cidr-set` and `not-in-cidr-set`
- `number`: `less-than`, `less-than-equals`, `greater-than`, and `greater-than-equals`

Type: String

Valid Values: `less-than | less-than-equals | greater-than | greater-than-equals | in-cidr-set | not-in-cidr-set | in-port-set | not-in-port-set | in-set | not-in-set`

Required: No

**consecutiveDatapointsToAlarm**

If a device is in violation of the behavior for the specified number of consecutive datapoints, an alarm occurs. If not specified, the default is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

**consecutiveDatapointsToClear**

If an alarm has occurred and the offending device is no longer in violation of the behavior for the specified number of consecutive datapoints, the alarm is cleared. If not specified, the default is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

**durationSeconds**

Use this to specify the time duration over which the behavior is evaluated, for those criteria that have a time dimension (for example, `NUM_MESSAGES_SENT`). For a `statisticalThreshhold` metric comparison, measurements from all devices are accumulated over this time duration before being used to calculate percentiles, and later, measurements from an individual device are also accumulated over this time duration before being given a percentile rank. Cannot be used with list-based metric datatypes.

Type: Integer

Required: No

**mlDetectionConfig**

The configuration of an ML Detect

Type: MachineLearningDetectionConfig object

Required: No

**statisticalThreshold**

A statistical ranking (percentile)that indicates a threshold value by which a behavior is determined to be in compliance or in violation of the behavior.

Type: StatisticalThreshold object

Required: No

**value**

The value to be compared with the `metric`.

Type: MetricValue object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# BehaviorModelTrainingSummary

Service: AWS IoT

The summary of an ML Detect behavior model.

## Contents

**behaviorName**

The name of the behavior.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**datapointsCollectionPercentage**

The percentage of datapoints collected.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

**lastModelRefreshDate**

The date the model was last refreshed.

Type: Timestamp

Required: No

**modelStatus**

The status of the behavior model.

Type: String

Valid Values: `PENDING_BUILD | ACTIVE | EXPIRED`

Required: No

**securityProfileName**

The name of the security profile.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**trainingDataCollectionStartDate**

The date a training model started collecting data.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# BillingGroupMetadata

Service: AWS IoT

Additional information about the billing group.

## Contents

### creationDate

The date the billing group was created.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# BillingGroupProperties

Service: AWS IoT

The properties of a billing group.

## Contents

### billingGroupDescription

The description of the billing group.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[\p{Graph}\x20]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Bucket

Service: AWS IoT

A count of documents that meets a specific aggregation criteria.

## Contents

**count**

The number of documents that have the value counted for the particular bucket.

Type: Integer

Required: No

**keyValue**

The value counted for the particular bucket.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# BucketsAggregationType

Service: AWS IoT

The type of bucketed aggregation performed.

## Contents

### termsAggregation

Performs an aggregation that will return a list of buckets. The list of buckets is a ranked list of the number of occurrences of an aggregation field value.

Type: TermsAggregation object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CACertificate

Service: AWS IoT

A CA certificate.

## Contents

**certificateArn**

The ARN of the CA certificate.

Type: String

Required: No

**certificateId**

The ID of the CA certificate.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**creationDate**

The date the CA certificate was created.

Type: Timestamp

Required: No

**status**

The status of the CA certificate.

The status value REGISTER_INACTIVE is deprecated and should not be used.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CACertificateDescription

Service: AWS IoT

Describes a CA certificate.

## Contents

**autoRegistrationStatus**

Whether the CA certificate configured for auto registration of device certificates. Valid values are "ENABLE" and "DISABLE"

Type: String

Valid Values: `ENABLE | DISABLE`

Required: No

**certificateArn**

The CA certificate ARN.

Type: String

Required: No

**certificateId**

The CA certificate ID.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**certificateMode**

The mode of the CA.

All the device certificates that are registered using this CA will be registered in the same mode as the CA. For more information about certificate mode for device certificates, see certificate mode.

Type: String

Valid Values: `DEFAULT | SNI_ONLY`

Required: No

**certificatePem**

The CA certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: No

**creationDate**

The date the CA certificate was created.

Type: Timestamp

Required: No

**customerVersion**

The customer version of the CA certificate.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**generationId**

The generation ID of the CA certificate.

Type: String

Required: No

**lastModifiedDate**

The date the CA certificate was last modified.

Type: Timestamp

Required: No

**ownedBy**

The owner of the CA certificate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

**status**

The status of a CA certificate.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Required: No

**validity**

When the CA certificate is valid.

Type: CertificateValidity object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Certificate

Service: AWS IoT

Information about a certificate.

## Contents

**certificateArn**

The ARN of the certificate.

Type: String

Required: No

**certificateId**

The ID of the certificate. (The last part of the certificate ARN contains the certificate ID.)

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**certificateMode**

The mode of the certificate.

`DEFAULT`: A certificate in `DEFAULT` mode is either generated by AWS IoT Core or registered with an issuer certificate authority (CA) in `DEFAULT` mode. Devices with certificates in `DEFAULT` mode aren't required to send the Server Name Indication (SNI) extension when connecting to AWS IoT Core. However, to use features such as custom domains and VPC endpoints, we recommend that you use the SNI extension when connecting to AWS IoT Core.

`SNI_ONLY`: A certificate in `SNI_ONLY` mode is registered without an issuer CA. Devices with certificates in `SNI_ONLY` mode must send the SNI extension when connecting to AWS IoT Core.

Type: String

Valid Values: `DEFAULT | SNI_ONLY`

Required: No

**creationDate**

The date and time the certificate was created.

Type: Timestamp

Required: No

**status**

The status of the certificate.

The status value REGISTER_INACTIVE is deprecated and should not be used.

Type: String

Valid Values: `ACTIVE | INACTIVE | REVOKED | PENDING_TRANSFER | REGISTER_INACTIVE | PENDING_ACTIVATION`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CertificateDescription

Service: AWS IoT

Describes a certificate.

## Contents

**caCertificateId**

The certificate ID of the CA certificate used to sign this certificate.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**certificateArn**

The ARN of the certificate.

Type: String

Required: No

**certificateId**

The ID of the certificate.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**certificateMode**

The mode of the certificate.

`DEFAULT`: A certificate in `DEFAULT` mode is either generated by AWS IoT Core or registered with an issuer certificate authority (CA) in `DEFAULT` mode. Devices with certificates in `DEFAULT`

mode aren't required to send the Server Name Indication (SNI) extension when connecting to AWS IoT Core. However, to use features such as custom domains and VPC endpoints, we recommend that you use the SNI extension when connecting to AWS IoT Core.

`SNI_ONLY`: A certificate in `SNI_ONLY` mode is registered without an issuer CA. Devices with certificates in `SNI_ONLY` mode must send the SNI extension when connecting to AWS IoT Core.

For more information about the value for SNI extension, see Transport security in AWS IoT.

Type: String

Valid Values: `DEFAULT | SNI_ONLY`

Required: No

**certificatePem**

The certificate data, in PEM format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\s\S]*`

Required: No

**creationDate**

The date and time the certificate was created.

Type: Timestamp

Required: No

**customerVersion**

The customer version of the certificate.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**generationId**

The generation ID of the certificate.

Type: String

Required: No

**lastModifiedDate**

The date and time the certificate was last modified.

Type: Timestamp

Required: No

**ownedBy**

The ID of the AWS account that owns the certificate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

**previousOwnedBy**

The ID of the AWS account of the previous owner of the certificate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

**status**

The status of the certificate.

Type: String

Valid Values: `ACTIVE | INACTIVE | REVOKED | PENDING_TRANSFER | REGISTER_INACTIVE | PENDING_ACTIVATION`

Required: No

**transferData**

The transfer data.

Type: TransferData object

Required: No

**validity**

When the certificate is valid.

Type: CertificateValidity object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CertificateProviderSummary

Service: AWS IoT

The certificate provider summary.

## Contents

**certificateProviderArn**

The ARN of the certificate provider.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**certificateProviderName**

The name of the certificate provider.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CertificateValidity

Service: AWS IoT

When the certificate is valid.

## Contents

**notAfter**

The certificate is not valid after this date.

Type: Timestamp

Required: No

**notBefore**

The certificate is not valid before this date.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ClientCertificateConfig

Service: AWS IoT

An object that specifies the client certificate configuration for a domain.

## Contents

### clientCertificateCallbackArn

The ARN of the Lambda function that AWS IoT invokes after mutual TLS authentication during the connection.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CloudwatchAlarmAction

Service: AWS IoT

Describes an action that updates a CloudWatch alarm.

## Contents

**alarmName**

The CloudWatch alarm name.

Type: String

Required: Yes

**roleArn**

The IAM role that allows access to the CloudWatch alarm.

Type: String

Required: Yes

**stateReason**

The reason for the alarm change.

Type: String

Required: Yes

**stateValue**

The value of the alarm state. Acceptable values are: OK, ALARM, INSUFFICIENT_DATA.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CloudwatchLogsAction

Service: AWS IoT

Describes an action that sends data to CloudWatch Logs.

## Contents

**logGroupName**

The CloudWatch log group to which the action sends data.

Type: String

Required: Yes

**roleArn**

The IAM role that allows access to the CloudWatch log.

Type: String

Required: Yes

**batchMode**

Indicates whether batches of log records will be extracted and uploaded into CloudWatch. Values include `true` or `false` *(default)*.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CloudwatchMetricAction

Service: AWS IoT

Describes an action that captures a CloudWatch metric.

## Contents

**metricName**

The CloudWatch metric name.

Type: String

Required: Yes

**metricNamespace**

The CloudWatch metric namespace name.

Type: String

Required: Yes

**metricUnit**

The metric unit supported by CloudWatch.

Type: String

Required: Yes

**metricValue**

The CloudWatch metric value.

Type: String

Required: Yes

**roleArn**

The IAM role that allows access to the CloudWatch metric.

Type: String

Required: Yes

**metricTimestamp**

An optional Unix timestamp.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CodeSigning

Service: AWS IoT

Describes the method to use when code signing a file.

## Contents

**awsSignerJobId**

The ID of the `AWSSignerJob` which was created to sign the file.

Type: String

Required: No

**customCodeSigning**

A custom method for code signing a file.

Type: CustomCodeSigning object

Required: No

**startSigningJobParameter**

Describes the code-signing job.

Type: StartSigningJobParameter object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CodeSigningCertificateChain

Service: AWS IoT

Describes the certificate chain being used when code signing a file.

## Contents

**certificateName**

The name of the certificate.

Type: String

Required: No

**inlineDocument**

A base64 encoded binary representation of the code signing certificate chain.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CodeSigningSignature

Service: AWS IoT

Describes the signature for a file.

## Contents

### inlineDocument

A base64 encoded binary representation of the code signing signature.

Type: Base64-encoded binary data object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandExecutionResult

Service: AWS IoT

The result value of the command execution. The device can use the result field to share additional details about the execution such as a return value of a remote function call.

> **Note**
>
> This field is not applicable if you use the `AWS-IoT-FleetWise` namespace.

## Contents

**B**

An attribute of type Boolean. For example:

`"BOOL": true`

Type: Boolean

Required: No

**BIN**

An attribute of type Binary.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1.

Required: No

**S**

An attribute of type String. For example:

`"S": "Hello"`

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandExecutionSummary

Service: AWS IoT

Summary information about a particular command execution.

## Contents

**commandArn**

The Amazon Resource Name (ARN) of the command execution.

Type: String

Required: No

**completedAt**

The date and time at which the command completed executing on the target device.

Type: Timestamp

Required: No

**createdAt**

The date and time at which the command execution was created for the target device.

Type: Timestamp

Required: No

**executionId**

The unique identifier of the command execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**startedAt**

The date and time at which the command started executing on the target device.

Type: Timestamp

Required: No

**status**

The status of the command executions.

Type: String

Valid Values: `CREATED | IN_PROGRESS | SUCCEEDED | FAILED | REJECTED | TIMED_OUT`

Required: No

**targetArn**

The Amazon Resource Name (ARN) of the target device for which the command is being executed.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandParameter

Service: AWS IoT

A map of key-value pairs that describe the command.

## Contents

**name**

The name of a specific parameter used in a command and command execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 192.

Pattern: `^[.$a-zA-Z0-9_-]+$`

Required: Yes

**defaultValue**

The default value used to describe the command. This is the value assumed by the parameter if no other value is assigned to it.

Type: CommandParameterValue object

Required: No

**description**

The description of the command parameter.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]*`

Required: No

**type**

The type of the command parameter.

Type: String

Valid Values: `STRING | INTEGER | DOUBLE | LONG | UNSIGNEDLONG | BOOLEAN | BINARY`

Required: No

**value**

Parameter value that overrides the default value, if set.

Type: CommandParameterValue object

Required: No

**valueConditions**

The list of conditions that a command parameter value must satisfy to create a command execution.

Type: Array of CommandParameterValueCondition objects

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandParameterValue

Service: AWS IoT

The value of a command parameter used to create a command execution.

> **Note**
>
> The `commandParameterValue` can only have one of the below fields listed.

## Contents

**B**

An attribute of type Boolean. For example:

`"BOOL": true`

Type: Boolean

Required: No

**BIN**

An attribute of type Binary. For example:

`"B": "dGhpcyB0ZXh0IGlzIGJhc2U2NC1lbmNvZGVk"`

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1.

Required: No

**D**

An attribute of type Double (Sixty-Four Bits).

Type: Double

Required: No

**I**

An attribute of type Integer (Thirty-Two Bits).

Type: Integer

Required: No

**L**

An attribute of type Long.

Type: Long

Required: No

**S**

An attribute of type String. For example:

`"S": "Hello"`

Type: String

Length Constraints: Minimum length of 1.

Required: No

**UL**

An attribute of type unsigned long.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[0-9]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandParameterValueComparisonOperand

Service: AWS IoT

The comparison operand used to compare the defined value against the value supplied in request.

## Contents

**number**

An operand of number value type, defined as a string.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**numberRange**

An operand of numerical range value type.

Type: CommandParameterValueNumberRange object

Required: No

**numbers**

A List of operands of numerical value type, defined as strings.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1.

Required: No

**string**

An operand of string value type.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**strings**

A List of operands of string value type.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandParameterValueCondition

Service: AWS IoT

A condition for the command parameter that must be evaluated to true for successful creation of a command execution.

## Contents

**comparisonOperator**

The comparison operator for the command parameter.

> **Note**
>
> IN_RANGE, and NOT_IN_RANGE operators include boundary values.

Type: String

Valid Values: `EQUALS | NOT_EQUALS | LESS_THAN | LESS_THAN_EQUALS | GREATER_THAN | GREATER_THAN_EQUALS | IN_SET | NOT_IN_SET | IN_RANGE | NOT_IN_RANGE`

Required: Yes

**operand**

The comparison operand for the command parameter.

Type: CommandParameterValueComparisonOperand object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# CommandParameterValueNumberRange

Service: AWS IoT

The numerical range value type to compare a command parameter value against.

## Contents

**max**

The maximum value of a numerical range of a command parameter value.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**min**

The minimum value of a numerical range of a command parameter value.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandPayload

Service: AWS IoT

The command payload object that contains the instructions for the device to process.

## Contents

**content**

The static payload file for the command.

Type: Base64-encoded binary data object

Required: No

**contentType**

The content type that specifies the format type of the payload file. This field must use a type/subtype format, such as `application/json`. For information about various content types, see Common MIME types.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandPreprocessor

Service: AWS IoT

Configuration that determines how the `payloadTemplate` is processed by the service to generate the final payload sent to devices at `StartCommandExecution` API invocation.

## Contents

### awsJsonSubstitution

Configuration for the JSON substitution preprocessor.

Type: AwsJsonSubstitutionCommandPreprocessorConfig object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CommandSummary

Service: AWS IoT

Summary information about a particular command resource.

## Contents

**commandArn**

The Amazon Resource Name (ARN) of the command.

Type: String

Required: No

**commandId**

The unique identifier of the command.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**createdAt**

The timestamp, when the command was created.

Type: Timestamp

Required: No

**deprecated**

Indicates whether the command has been deprecated.

Type: Boolean

Required: No

**displayName**

The display name of the command.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `[^\p{C}]*`

Required: No

**lastUpdatedAt**

The timestamp, when the command was last updated.

Type: Timestamp

Required: No

**pendingDeletion**

Indicates whether the command is pending deletion.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Configuration

Service: AWS IoT

Configuration.

## Contents

### Enabled

True to enable the configuration.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ConfigurationDetails

Service: AWS IoT

The encryption configuration details that include the status information of the AWS Key Management Service (AWS KMS) key and the AWS KMS access role.

## Contents

**configurationStatus**

The health status of KMS key and AWS KMS access role. If either KMS key or AWS KMS access role is `UNHEALTHY`, the return value will be `UNHEALTHY`. To use a customer managed KMS key, the value of `configurationStatus` must be `HEALTHY`.

Type: String

Valid Values: `HEALTHY | UNHEALTHY`

Required: No

**errorCode**

The error code that indicates either the KMS key or the AWS KMS access role is `UNHEALTHY`. Valid values: `KMS_KEY_VALIDATION_ERROR` and `ROLE_VALIDATION_ERROR`.

Type: String

Required: No

**errorMessage**

The detailed error message that corresponds to the `errorCode`.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ConnectivityFilter

Service: AWS IoT

Provides connectivity filter selections for the fleet indexing configuration.

## Contents

### includeSocketInformation

A list of fleet indexing APIs for which to enable socket information retrieval. Currently, the only supported value is `GET_THING_CONNECTIVITY_DATA`.

Type: Array of strings

Valid Values: `GET_THING_CONNECTIVITY_DATA`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# CustomCodeSigning

Service: AWS IoT

Describes a custom method used to code sign a file.

## Contents

**certificateChain**

The certificate chain.

Type: CodeSigningCertificateChain object

Required: No

**hashAlgorithm**

The hash algorithm used to code sign the file. You can use a string as the algorithm name if the target over-the-air (OTA) update devices are able to verify the signature that was generated using the same signature algorithm. For example, FreeRTOS uses SHA256 or SHA1, so you can pass either of them based on which was used for generating the signature.

Type: String

Required: No

**signature**

The signature for the file.

Type: CodeSigningSignature object

Required: No

**signatureAlgorithm**

The signature algorithm used to code sign the file. You can use a string as the algorithm name if the target over-the-air (OTA) update devices are able to verify the signature that was generated using the same signature algorithm. For example, FreeRTOS uses ECDSA or RSA, so you can pass either of them based on which was used for generating the signature.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Denied

Service: AWS IoT

Contains information that denied the authorization.

## Contents

**explicitDeny**

Information that explicitly denies the authorization.

Type: ExplicitDeny object

Required: No

**implicitDeny**

Information that implicitly denies the authorization. When a policy doesn't explicitly deny or allow an action on a resource it is considered an implicit deny.

Type: ImplicitDeny object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Destination

Service: AWS IoT

Describes the location of the updated firmware.

## Contents

### s3Destination

Describes the location in S3 of the updated firmware.

Type: S3Destination object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DetectMitigationActionExecution

Service: AWS IoT

Describes which mitigation actions should be executed.

## Contents

**actionName**

The friendly name that uniquely identifies the mitigation action.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**errorCode**

The error code of a mitigation action.

Type: String

Required: No

**executionEndDate**

The date a mitigation action ended.

Type: Timestamp

Required: No

**executionStartDate**

The date a mitigation action was started.

Type: Timestamp

Required: No

**message**

The message of a mitigation action.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

**status**

The status of a mitigation action.

Type: String

Valid Values: `IN_PROGRESS | SUCCESSFUL | FAILED | SKIPPED`

Required: No

**taskId**

The unique identifier of the task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**thingName**

The name of the thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**violationId**

The unique identifier of the violation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DetectMitigationActionsTaskStatistics

Service: AWS IoT

The statistics of a mitigation action task.

## Contents

**actionsExecuted**

The actions that were performed.

Type: Long

Required: No

**actionsFailed**

The actions that failed.

Type: Long

Required: No

**actionsSkipped**

The actions that were skipped.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DetectMitigationActionsTaskSummary

Service: AWS IoT

The summary of the mitigation action tasks.

## Contents

**actionsDefinition**

The definition of the actions.

Type: Array of MitigationAction objects

Required: No

**onlyActiveViolationsIncluded**

Includes only active violations.

Type: Boolean

Required: No

**suppressedAlertsIncluded**

Includes suppressed alerts.

Type: Boolean

Required: No

**target**

Specifies the ML Detect findings to which the mitigation actions are applied.

Type: DetectMitigationActionsTaskTarget object

Required: No

**taskEndTime**

The date the task ended.

Type: Timestamp

Required: No

**taskId**

The unique identifier of the task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**taskStartTime**

The date the task started.

Type: Timestamp

Required: No

**taskStatistics**

The statistics of a mitigation action task.

Type: DetectMitigationActionsTaskStatistics object

Required: No

**taskStatus**

The status of the task.

Type: String

Valid Values: `IN_PROGRESS | SUCCESSFUL | FAILED | CANCELED`

Required: No

**violationEventOccurrenceRange**

Specifies the time period of which violation events occurred between.

Type: ViolationEventOccurrenceRange object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DetectMitigationActionsTaskTarget

Service: AWS IoT

The target of a mitigation action task.

## Contents

**behaviorName**

The name of the behavior.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**securityProfileName**

The name of the security profile.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**violationIds**

The unique identifiers of the violations.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DocumentParameter

Service: AWS IoT

A map of key-value pairs containing the patterns that need to be replaced in a managed template job document schema. You can use the description of each key as a guidance to specify the inputs during runtime when creating a job.

> **Note**
>
> `documentParameters` can only be used when creating jobs from AWS managed templates. This parameter can't be used with custom job templates or to create jobs from them.

## Contents

**description**

Description of the map field containing the patterns that need to be replaced in a managed template job document schema.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**example**

An example illustrating a pattern that need to be replaced in a managed template job document schema.

Type: String

Pattern: `[^\p{C}]+`

Required: No

**key**

Key of the map field containing the patterns that need to be replaced in a managed template job document schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**optional**

Specifies whether a pattern that needs to be replaced in a managed template job document schema is optional or required.

Type: Boolean

Required: No

**regex**

A regular expression of the patterns that need to be replaced in a managed template job document schema.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DomainConfigurationSummary

Service: AWS IoT

The summary of a domain configuration. A domain configuration specifies custom IoT-specific information about a domain. A domain configuration can be associated with an AWS-managed domain (for example, dbc123defghijk.iot.us-west-2.amazonaws.com), a customer managed domain, or a default endpoint.

- Data
- Jobs
- CredentialProvider

## Contents

**domainConfigurationArn**

The ARN of the domain configuration.

Type: String

Required: No

**domainConfigurationName**

The name of the domain configuration. This value must be unique to a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w.:-]+`

Required: No

**serviceType**

The type of service delivered by the endpoint.

Type: String

Valid Values: `DATA | CREDENTIAL_PROVIDER | JOBS`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DynamoDBAction

Service: AWS IoT

Describes an action to write to a DynamoDB table.

The `tableName`, `hashKeyField`, and `rangeKeyField` values must match the values used when you created the table.

The `hashKeyValue` and `rangeKeyvalue` fields use a substitution template syntax. These templates provide data at runtime. The syntax is as follows: ${*sql-expression*}.

You can specify any valid expression in a WHERE or SELECT clause, including JSON properties, comparisons, calculations, and functions. For example, the following field uses the third level of the topic:

```
"hashKeyValue": "${topic(3)}"
```

The following field uses the timestamp:

```
"rangeKeyValue": "${timestamp()}"
```

## Contents

**hashKeyField**

The hash key name.

Type: String

Required: Yes

**hashKeyValue**

The hash key value.

Type: String

Required: Yes

**roleArn**

The ARN of the IAM role that grants access to the DynamoDB table.

Type: String

Required: Yes

**tableName**

The name of the DynamoDB table.

Type: String

Required: Yes

**hashKeyType**

The hash key type. Valid values are "STRING" or "NUMBER"

Type: String

Valid Values: `STRING | NUMBER`

Required: No

**operation**

The type of operation to be performed. This follows the substitution template, so it can be `${operation}`, but the substitution must result in one of the following: `INSERT`, `UPDATE`, or `DELETE`.

Type: String

Required: No

**payloadField**

The action payload. This name can be customized.

Type: String

Required: No

**rangeKeyField**

The range key name.

Type: String

Required: No

**rangeKeyType**

The range key type. Valid values are "STRING" or "NUMBER"

Type: String

Valid Values: `STRING | NUMBER`

Required: No

**rangeKeyValue**

The range key value.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DynamoDBv2Action

Service: AWS IoT

Describes an action to write to a DynamoDB table.

This DynamoDB action writes each attribute in the message payload into it's own column in the DynamoDB table.

## Contents

**putItem**

Specifies the DynamoDB table to which the message data will be written. For example:

```
{ "dynamoDBv2": { "roleArn": "aws:iam:12341251:my-role" "putItem":
{ "tableName": "my-table" } } }
```

Each attribute in the message payload will be written to a separate column in the DynamoDB database.

Type: PutItemInput object

Required: Yes

**roleArn**

The ARN of the IAM role that grants access to the DynamoDB table.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# EffectivePolicy

Service: AWS IoT

The policy that has the effect on the authorization results.

## Contents

**policyArn**

The policy ARN.

Type: String

Required: No

**policyDocument**

The IAM policy document.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 404600.

Pattern: `[\s\S]*`

Required: No

**policyName**

The policy name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ElasticsearchAction

Service: AWS IoT

Describes an action that writes data to an Amazon OpenSearch Service domain.

> **Note**
>
> The `Elasticsearch` action can only be used by existing rule actions. To create a new rule action or to update an existing rule action, use the `OpenSearch` rule action instead. For more information, see OpenSearchAction.

## Contents

**endpoint**

The endpoint of your OpenSearch domain.

Type: String

Pattern: `https?://.*`

Required: Yes

**id**

The unique identifier for the document you are storing.

Type: String

Required: Yes

**index**

The index where you want to store your data.

Type: String

Required: Yes

**roleArn**

The IAM role ARN that has access to OpenSearch.

Type: String

Required: Yes

**type**

The type of document you are storing.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# EnableIoTLoggingParams

Service: AWS IoT

Parameters used when defining a mitigation action that enable AWS IoT Core logging.

## Contents

**logLevel**

Specifies the type of information to be logged.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: Yes

**roleArnForLogging**

The Amazon Resource Name (ARN) of the IAM role used for logging.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ErrorInfo

Service: AWS IoT

Error information.

## Contents

**code**

The error code.

Type: String

Required: No

**message**

The error message.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ExplicitDeny

Service: AWS IoT

Information that explicitly denies authorization.

## Contents

### policies

The policies that denied the authorization.

Type: Array of Policy objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ExponentialRolloutRate

Service: AWS IoT

Allows you to create an exponential rate of rollout for a job.

## Contents

**baseRatePerMinute**

The minimum number of things that will be notified of a pending job, per minute at the start of job rollout. This parameter allows you to define the initial rate of rollout.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: Yes

**incrementFactor**

The exponential factor to increase the rate of rollout for a job.

AWS IoT Core supports up to one digit after the decimal (for example, 1.5, but not 1.55).

Type: Double

Valid Range: Minimum value of 1.1. Maximum value of 5.

Required: Yes

**rateIncreaseCriteria**

The criteria to initiate the increase in rate of rollout for a job.

Type: RateIncreaseCriteria object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Field

Service: AWS IoT

Describes the name and data type at a field.

## Contents

**name**

The name of the field.

Type: String

Required: No

**type**

The data type of the field.

Type: String

Valid Values: `Number | String | Boolean`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# FileLocation

Service: AWS IoT

The location of the OTA update.

## Contents

**s3Location**

The location of the updated firmware in S3.

Type: S3Location object

Required: No

**stream**

The stream that contains the OTA update.

Type: Stream object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# FirehoseAction

Service: AWS IoT

Describes an action that writes data to an Amazon Kinesis Firehose stream.

## Contents

**deliveryStreamName**

The delivery stream name.

Type: String

Required: Yes

**roleArn**

The IAM role that grants access to the Amazon Kinesis Firehose stream.

Type: String

Required: Yes

**batchMode**

Whether to deliver the Kinesis Data Firehose stream as a batch by using `PutRecordBatch`. The default value is `false`.

When `batchMode` is `true` and the rule's SQL statement evaluates to an Array, each Array element forms one record in the `PutRecordBatch` request. The resulting array can't have more than 500 records.

Type: Boolean

Required: No

**separator**

A character separator that will be used to separate records written to the Firehose stream. Valid values are: '\n' (newline), '\t' (tab), '\r\n' (Windows newline), ',' (comma).

Type: String

Pattern: `([\n\t])|(\r\n)|(,)`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# FleetMetricNameAndArn

Service: AWS IoT

The name and ARN of a fleet metric.

## Contents

**metricArn**

The fleet metric ARN.

Type: String

Required: No

**metricName**

The fleet metric name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\-\.]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# GeoLocationTarget

Service: AWS IoT

A geolocation target that you select to index. Each geolocation target contains a `name` and `order` key-value pair that specifies the geolocation target fields.

## Contents

**name**

The `name` of the geolocation target field. If the target field is part of a named shadow, you must select the named shadow using the `namedShadow` filter.

Type: String

Required: No

**order**

The `order` of the geolocation target field. This field is optional. The default value is `LatLon`.

Type: String

Valid Values: `LatLon | LonLat`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# GroupNameAndArn

Service: AWS IoT

The name and ARN of a group.

## Contents

**groupArn**

The group ARN.

Type: String

Required: No

**groupName**

The group name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpAction

Service: AWS IoT

Send data to an HTTPS endpoint.

## Contents

**url**

The endpoint URL. If substitution templates are used in the URL, you must also specify a `confirmationUrl`. If this is a new destination, a new `TopicRuleDestination` is created if possible.

Type: String

Length Constraints: Maximum length of 2000.

Required: Yes

**auth**

The authentication method to use when sending data to an HTTPS endpoint.

Type: HttpAuthorization object

Required: No

**batchConfig**

The configuration settings for batching. For more information, see Batching HTTP action messages.

Type: BatchConfig object

Required: No

**confirmationUrl**

The URL to which AWS IoT sends a confirmation message. The value of the confirmation URL must be a prefix of the endpoint URL. If you do not specify a confirmation URL AWS IoT uses the endpoint URL as the confirmation URL. If you use substitution templates in the confirmationUrl, you must create and enable topic rule destinations that match each possible value of the substitution template before traffic is allowed to your endpoint URL.

Type: String

Length Constraints: Maximum length of 2000.

Required: No

**enableBatching**

Whether to process the HTTP action messages into a single request. Value can be true or false.

Type: Boolean

Required: No

**headers**

The HTTP headers to send with the message data.

Type: Array of HttpActionHeader objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpActionHeader

Service: AWS IoT

The HTTP action header.

## Contents

**key**

The HTTP header key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

**value**

The HTTP header value. Substitution templates are supported.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpAuthorization

Service: AWS IoT

The authorization method used to send messages.

## Contents

### sigv4

Use Sig V4 authorization. For more information, see Signature Version 4 Signing Process.

Type: SigV4Authorization object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpContext

Service: AWS IoT

Specifies the HTTP context to use for the test authorizer request.

## Contents

### headers

The header keys and values in an HTTP authorization request.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 8192.

Key Pattern: `[\s\S]*`

Value Length Constraints: Minimum length of 1. Maximum length of 8192.

Value Pattern: `[\s\S]*`

Required: No

### queryString

The query string keys and values in an HTTP authorization request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# HttpUrlDestinationConfiguration

Service: AWS IoT

HTTP URL destination configuration used by the topic rule's HTTP action.

## Contents

### confirmationUrl

The URL AWS IoT uses to confirm ownership of or access to the topic rule destination URL.

Type: String

Length Constraints: Maximum length of 2000.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpUrlDestinationProperties

Service: AWS IoT

HTTP URL destination properties.

## Contents

### confirmationUrl

The URL used to confirm the HTTP topic rule destination URL.

Type: String

Length Constraints: Maximum length of 2000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# HttpUrlDestinationSummary

Service: AWS IoT

Information about an HTTP URL destination.

## Contents

### confirmationUrl

The URL used to confirm ownership of or access to the HTTP topic rule destination URL.

Type: String

Length Constraints: Maximum length of 2000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ImplicitDeny

Service: AWS IoT

Information that implicitly denies authorization. When policy doesn't explicitly deny or allow an action on a resource it is considered an implicit deny.

## Contents

### policies

Policies that don't contain a matching allow or deny statement for the specified action on the specified resource.

Type: Array of Policy objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# IndexingFilter

Service: AWS IoT

Provides additional selections for named shadows and geolocation data.

To add named shadows to your fleet indexing configuration, set `namedShadowIndexingMode` to be ON and specify your shadow names in `namedShadowNames` filter.

To add geolocation data to your fleet indexing configuration:

- If you store geolocation data in a class/unnamed shadow, set `thingIndexingMode` to be `REGISTRY_AND_SHADOW` and specify your geolocation data in `geoLocations` filter.
- If you store geolocation data in a named shadow, set `namedShadowIndexingMode` to be `ON`, add the shadow name in `namedShadowNames` filter, and specify your geolocation data in `geoLocations` filter. For more information, see Managing fleet indexing.

## Contents

**connectivity**

Provides additional connectivity filter selections for the fleet indexing configuration.

Type: ConnectivityFilter object

Required: No

**geoLocations**

The list of geolocation targets that you select to index. The default maximum number of geolocation targets for indexing is 1. To increase the limit, see AWS IoT Device Management Quotas in the *AWS General Reference*.

Type: Array of GeoLocationTarget objects

Required: No

**namedShadowNames**

The shadow names that you select to index. The default maximum number of shadow names for indexing is 10. To increase the limit, see AWS IoT Device Management Quotas in the *AWS General Reference*.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[$a-zA-Z0-9:_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# IotAnalyticsAction

Service: AWS IoT

Sends message data to an AWS IoT Analytics channel.

## Contents

**batchMode**

Whether to process the action as a batch. The default value is `false`.

When `batchMode` is `true` and the rule SQL statement evaluates to an Array, each Array element is delivered as a separate message when passed by `BatchPutMessage` to the AWS IoT Analytics channel. The resulting array can't have more than 100 messages.

Type: Boolean

Required: No

**channelArn**

(deprecated) The ARN of the IoT Analytics channel to which message data will be sent.

Type: String

Required: No

**channelName**

The name of the IoT Analytics channel to which message data will be sent.

Type: String

Required: No

**roleArn**

The ARN of the role which has a policy that grants IoT Analytics permission to send message data via IoT Analytics (iotanalytics:BatchPutMessage).

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# IotEventsAction

Service: AWS IoT

Sends an input to an AWS IoT Events detector.

## Contents

**inputName**

The name of the AWS IoT Events input.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**roleArn**

The ARN of the role that grants AWS IoT permission to send an input to an AWS IoT Events detector. ("Action":"iotevents:BatchPutMessage").

Type: String

Required: Yes

**batchMode**

Whether to process the event actions as a batch. The default value is `false`.

When `batchMode` is `true`, you can't specify a `messageId`.

When `batchMode` is `true` and the rule SQL statement evaluates to an Array, each Array element is treated as a separate message when it's sent to AWS IoT Events by calling `BatchPutMessage`. The resulting array can't have more than 10 messages.

Type: Boolean

Required: No

**messageId**

The ID of the message. The default `messageId` is a new UUID value.

When `batchMode` is `true`, you can't specify a `messageId`--a new UUID value will be assigned.

Assign a value to this property to ensure that only one input (message) with a given `messageId` will be processed by an AWS IoT Events detector.

Type: String

Length Constraints: Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# IotSiteWiseAction

Service: AWS IoT

Describes an action to send data from an MQTT message that triggered the rule to AWS IoT SiteWise asset properties.

## Contents

**putAssetPropertyValueEntries**

A list of asset property value entries.

Type: Array of PutAssetPropertyValueEntry objects

Array Members: Minimum number of 1 item.

Required: Yes

**roleArn**

The ARN of the role that grants AWS IoT permission to send an asset property value to AWS IoT SiteWise. (`"Action": "iotsitewise:BatchPutAssetPropertyValue"`). The trust policy can restrict access to specific asset hierarchy paths.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# IssuerCertificateIdentifier

Service: AWS IoT

The certificate issuer indentifier.

## Contents

### issuerCertificateSerialNumber

The issuer certificate serial number.

Type: String

Length Constraints: Maximum length of 20.

Pattern: `[a-fA-F0-9:]+`

Required: No

### issuerCertificateSubject

The subject of the issuer certificate.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[\p{Graph}\x20]*`

Required: No

### issuerId

The issuer ID.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Job

Service: AWS IoT

The `Job` object contains details about a job.

## Contents

**abortConfig**

Configuration for criteria to abort the job.

Type: AbortConfig object

Required: No

**comment**

If the job was updated, describes the reason for the update.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**completedAt**

The time, in seconds since the epoch, when the job was completed.

Type: Timestamp

Required: No

**createdAt**

The time, in seconds since the epoch, when the job was created.

Type: Timestamp

Required: No

**description**

A short text description of the job.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**destinationPackageVersions**

The package version Amazon Resource Names (ARNs) that are installed on the device when the job successfully completes. The package version must be in either the Published or Deprecated state when the job deploys. For more information, see Package version lifecycle.The package version must be in either the Published or Deprecated state when the job deploys. For more information, see Package version lifecycle.

**Note:**The following Length Constraints relates to a single ARN. Up to 25 package version ARNs are allowed.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

**documentParameters**

A key-value map that pairs the patterns that need to be replaced in a managed template job document schema. You can use the description of each key as a guidance to specify the inputs during runtime when creating a job.

> **Note**
>
> `documentParameters` can only be used when creating jobs from AWS managed templates. This parameter can't be used with custom job templates or to create jobs from them.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_-]+`

Value Length Constraints: Minimum length of 1. Maximum length of 30720.

Value Pattern: `[^\p{C}]+`

Required: No

**forceCanceled**

Will be `true` if the job was canceled with the optional `force` parameter set to `true`.

Type: Boolean

Required: No

**isConcurrent**

Indicates whether a job is concurrent. Will be true when a job is rolling out new job executions or canceling previously created executions, otherwise false.

Type: Boolean

Required: No

**jobArn**

An ARN identifying the job with format "arn:aws:iot:region:account:job/jobId".

Type: String

Required: No

**jobExecutionsRetryConfig**

The configuration for the criteria to retry the job.

Type: JobExecutionsRetryConfig object

Required: No

**jobExecutionsRolloutConfig**

Allows you to create a staged rollout of a job.

Type: JobExecutionsRolloutConfig object

Required: No

**jobId**

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**jobProcessDetails**

Details about the job process.

Type: JobProcessDetails object

Required: No

**jobTemplateArn**

The ARN of the job template used to create the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

**lastUpdatedAt**

The time, in seconds since the epoch, when the job was last updated.

Type: Timestamp

Required: No

**namespaceId**

The namespace used to indicate that a job is a customer-managed job.

When you specify a value for this parameter, AWS IoT Core sends jobs notifications to MQTT topics that contain the value in the following format.

`$aws/things/THING_NAME/jobs/JOB_ID/notify-namespace-NAMESPACE_ID/`

> **Note**
>
> The `namespaceId` feature is only supported by AWS IoT Greengrass at this time. For more information, see Setting up AWS IoT Greengrass core devices.

Type: String

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**presignedUrlConfig**

Configuration for pre-signed S3 URLs.

Type: PresignedUrlConfig object

Required: No

**reasonCode**

If the job was updated, provides the reason code for the update.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\p{Upper}\p{Digit}_]+`

Required: No

**scheduledJobRollouts**

Displays the next seven maintenance window occurrences and their start times.

Type: Array of ScheduledJobRollout objects

Required: No

**schedulingConfig**

The configuration that allows you to schedule a job for a future date and time in addition to specifying the end behavior for each job execution.

Type: SchedulingConfig object

Required: No

**status**

The status of the job, one of `IN_PROGRESS`, `CANCELED`, `DELETION_IN_PROGRESS` or `COMPLETED`.

Type: String

Valid Values: `IN_PROGRESS | CANCELED | COMPLETED | DELETION_IN_PROGRESS | SCHEDULED`

Required: No

**targets**

A list of IoT things and thing groups to which the job should be sent.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Maximum length of 2048.

Required: No

**targetSelection**

Specifies whether the job will continue to run (CONTINUOUS), or will be complete after all those things specified as targets have completed the job (SNAPSHOT). If continuous, the job may also be run on a thing when a change is detected in a target. For example, a job will run on a device when the thing representing the device is added to a target group, even after the job was completed by all things originally in the group.

> **Note**
>
> We recommend that you use continuous jobs instead of snapshot jobs for dynamic thing group targets. By using continuous jobs, devices that join the group receive the job execution even after the job has been created.

Type: String

Valid Values: `CONTINUOUS` | `SNAPSHOT`

Required: No

**timeoutConfig**

Specifies the amount of time each device has to finish its execution of the job. A timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the timer expires, it will be automatically set to `TIMED_OUT`.

Type: TimeoutConfig object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecution

Service: AWS IoT

The job execution object represents the execution of a job on a particular device.

## Contents

**approximateSecondsBeforeTimedOut**

The estimated number of seconds that remain before the job execution status will be changed to `TIMED_OUT`. The timeout interval can be anywhere between 1 minute and 7 days (1 to 10080 minutes). The actual job execution timeout can occur up to 60 seconds later than the estimated duration. This value will not be included if the job execution has reached a terminal status.

Type: Long

Required: No

**executionNumber**

A string (consisting of the digits "0" through "9") which identifies this particular job execution on this particular device. It can be used in commands which return or update job execution information.

Type: Long

Required: No

**forceCanceled**

Will be `true` if the job execution was canceled with the optional `force` parameter set to `true`.

Type: Boolean

Required: No

**jobId**

The unique identifier you assigned to the job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**lastUpdatedAt**

The time, in seconds since the epoch, when the job execution was last updated.

Type: Timestamp

Required: No

**queuedAt**

The time, in seconds since the epoch, when the job execution was queued.

Type: Timestamp

Required: No

**startedAt**

The time, in seconds since the epoch, when the job execution started.

Type: Timestamp

Required: No

**status**

The status of the job execution (IN_PROGRESS, QUEUED, FAILED, SUCCEEDED, TIMED_OUT, CANCELED, or REJECTED).

Type: String

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

Required: No

**statusDetails**

A collection of name/value pairs that describe the status of the job execution.

Type: JobExecutionStatusDetails object

Required: No

**thingArn**

The ARN of the thing on which the job execution is running.

Type: String

Required: No

**versionNumber**

The version of the job execution. Job execution versions are incremented each time they are updated by a device.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionsRetryConfig

Service: AWS IoT

The configuration that determines how many retries are allowed for each failure type for a job.

## Contents

### criteriaList

The list of criteria that determines how many retries are allowed for each failure type for a job.

Type: Array of RetryCriteria objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionsRolloutConfig

Service: AWS IoT

Allows you to create a staged rollout of a job.

## Contents

**exponentialRate**

The rate of increase for a job rollout. This parameter allows you to define an exponential rate for a job rollout.

Type: ExponentialRolloutRate object

Required: No

**maximumPerMinute**

The maximum number of things that will be notified of a pending job, per minute. This parameter allows you to create a staged rollout.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionStatusDetails

Service: AWS IoT

Details of the job execution status.

## Contents

### detailsMap

The job execution status.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionSummary

Service: AWS IoT

The job execution summary.

## Contents

**executionNumber**

A string (consisting of the digits "0" through "9") which identifies this particular job execution on this particular device. It can be used later in commands which return or update job execution information.

Type: Long

Required: No

**lastUpdatedAt**

The time, in seconds since the epoch, when the job execution was last updated.

Type: Timestamp

Required: No

**queuedAt**

The time, in seconds since the epoch, when the job execution was queued.

Type: Timestamp

Required: No

**retryAttempt**

The number that indicates how many retry attempts have been completed for this job on this device.

Type: Integer

Required: No

**startedAt**

The time, in seconds since the epoch, when the job execution started.

Type: Timestamp

Required: No

**status**

The status of the job execution.

Type: String

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionSummaryForJob

Service: AWS IoT

Contains a summary of information about job executions for a specific job.

## Contents

**jobExecutionSummary**

Contains a subset of information about a job execution.

Type: JobExecutionSummary object

Required: No

**thingArn**

The ARN of the thing on which the job execution is running.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionSummaryForThing

Service: AWS IoT

The job execution summary for a thing.

## Contents

### jobExecutionSummary

Contains a subset of information about a job execution.

Type: JobExecutionSummary object

Required: No

### jobId

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobProcessDetails

Service: AWS IoT

The job process details.

## Contents

**numberOfCanceledThings**

The number of things that cancelled the job.

Type: Integer

Required: No

**numberOfFailedThings**

The number of things that failed executing the job.

Type: Integer

Required: No

**numberOfInProgressThings**

The number of things currently executing the job.

Type: Integer

Required: No

**numberOfQueuedThings**

The number of things that are awaiting execution of the job.

Type: Integer

Required: No

**numberOfRejectedThings**

The number of things that rejected the job.

Type: Integer

Required: No

**numberOfRemovedThings**

The number of things that are no longer scheduled to execute the job because they have been deleted or have been removed from the group that was a target of the job.

Type: Integer

Required: No

**numberOfSucceededThings**

The number of things which successfully completed the job.

Type: Integer

Required: No

**numberOfTimedOutThings**

The number of things whose job execution status is `TIMED_OUT`.

Type: Integer

Required: No

**processingTargets**

The target devices to which the job execution is being rolled out. This value will be null after the job execution has finished rolling out to all the target devices.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobSummary

Service: AWS IoT

The job summary.

## Contents

**completedAt**

The time, in seconds since the epoch, when the job completed.

Type: Timestamp

Required: No

**createdAt**

The time, in seconds since the epoch, when the job was created.

Type: Timestamp

Required: No

**isConcurrent**

Indicates whether a job is concurrent. Will be true when a job is rolling out new job executions or canceling previously created executions, otherwise false.

Type: Boolean

Required: No

**jobArn**

The job ARN.

Type: String

Required: No

**jobId**

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**lastUpdatedAt**

The time, in seconds since the epoch, when the job was last updated.

Type: Timestamp

Required: No

**status**

The job summary status.

Type: String

Valid Values: `IN_PROGRESS | CANCELED | COMPLETED | DELETION_IN_PROGRESS | SCHEDULED`

Required: No

**targetSelection**

Specifies whether the job will continue to run (CONTINUOUS), or will be complete after all those things specified as targets have completed the job (SNAPSHOT). If continuous, the job may also be run on a thing when a change is detected in a target. For example, a job will run on a thing when the thing is added to a target group, even after the job was completed by all things originally in the group.

> **Note**
>
> We recommend that you use continuous jobs instead of snapshot jobs for dynamic thing group targets. By using continuous jobs, devices that join the group receive the job execution even after the job has been created.

Type: String

Valid Values: `CONTINUOUS | SNAPSHOT`

Required: No

**thingGroupId**

The ID of the thing group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobTemplateSummary

Service: AWS IoT

An object that contains information about the job template.

## Contents

**createdAt**

The time, in seconds since the epoch, when the job template was created.

Type: Timestamp

Required: No

**description**

A description of the job template.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**jobTemplateArn**

The ARN of the job template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

**jobTemplateId**

The unique identifier of the job template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# KafkaAction

Service: AWS IoT

Send messages to an Amazon Managed Streaming for Apache Kafka (Amazon MSK) or self-managed Apache Kafka cluster.

## Contents

**clientProperties**

Properties of the Apache Kafka producer client.

Type: String to string map

Required: Yes

**destinationArn**

The ARN of Kafka action's VPC `TopicRuleDestination`.

Type: String

Required: Yes

**topic**

The Kafka topic for messages to be sent to the Kafka broker.

Type: String

Required: Yes

**headers**

The list of Kafka headers that you specify.

Type: Array of KafkaActionHeader objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

**key**

The Kafka message key.

Type: String

Required: No

**partition**

The Kafka message partition.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# KafkaActionHeader

Service: AWS IoT

Specifies a Kafka header using key-value pairs when you create a Rule's Kafka Action. You can use these headers to route data from IoT clients to downstream Kafka clusters without modifying your message payload.

For more information about Rule's Kafka action, see Apache Kafka.

## Contents

**key**

The key of the Kafka header.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16384.

Required: Yes

**value**

The value of the Kafka header.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16384.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# KeyPair

Service: AWS IoT

Describes a key pair.

## Contents

**PrivateKey**

The private key.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**PublicKey**

The public key.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# KinesisAction

Service: AWS IoT

Describes an action to write data to an Amazon Kinesis stream.

## Contents

**roleArn**

The ARN of the IAM role that grants access to the Amazon Kinesis stream.

Type: String

Required: Yes

**streamName**

The name of the Amazon Kinesis stream.

Type: String

Required: Yes

**partitionKey**

The partition key.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LambdaAction

Service: AWS IoT

Describes an action to invoke a Lambda function.

## Contents

### functionArn

The ARN of the Lambda function.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LocationAction

Service: AWS IoT

The Amazon Location rule action sends device location updates from an MQTT message to an Amazon Location tracker resource.

## Contents

**deviceId**

The unique ID of the device providing the location data.

Type: String

Required: Yes

**latitude**

A string that evaluates to a double value that represents the latitude of the device's location.

Type: String

Required: Yes

**longitude**

A string that evaluates to a double value that represents the longitude of the device's location.

Type: String

Required: Yes

**roleArn**

The IAM role that grants permission to write to the Amazon Location resource.

Type: String

Required: Yes

**trackerName**

The name of the tracker resource in Amazon Location in which the location is updated.

Type: String

Required: Yes

**timestamp**

The time that the location data was sampled. The default value is the time the MQTT message was processed.

Type: LocationTimestamp object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LocationTimestamp

Service: AWS IoT

Describes how to interpret an application-defined timestamp value from an MQTT message payload and the precision of that value.

## Contents

**value**

An expression that returns a long epoch time value.

Type: String

Required: Yes

**unit**

The precision of the timestamp value that results from the expression described in `value`.

Valid values: `SECONDS` | `MILLISECONDS` | `MICROSECONDS` | `NANOSECONDS`. The default is `MILLISECONDS`.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogEventConfiguration

Service: AWS IoT

Configuration for event-based logging that specifies which event types to log and their logging settings. Used for account-level logging overrides.

## Contents

**eventType**

The type of event to log. These include event types like Connect, Publish, and Disconnect.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: Yes

**logDestination**

CloudWatch Log Group for event-based logging. Specifies where log events should be sent. The log destination for event-based logging overrides default Log Group for the specified event type and applies to all resources associated with that event.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `^[.\-_/#A-Za-z0-9]+$`

Required: No

**logLevel**

The logging level for the specified event type. Determines the verbosity of log messages generated for this event type.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LoggingOptionsPayload

Service: AWS IoT

Describes the logging options payload.

## Contents

**roleArn**

The ARN of the IAM role that grants access.

Type: String

Required: Yes

**logLevel**

The log level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogTarget

Service: AWS IoT

A log target.

## Contents

**targetType**

The target type.

Type: String

Valid Values: `DEFAULT | THING_GROUP | CLIENT_ID | SOURCE_IP | PRINCIPAL_ID`

Required: Yes

**targetName**

The target name.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogTargetConfiguration

Service: AWS IoT

The target configuration.

## Contents

**logLevel**

The logging level.

Type: String

Valid Values: `DEBUG | INFO | ERROR | WARN | DISABLED`

Required: No

**logTarget**

A log target

Type: LogTarget object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MachineLearningDetectionConfig

Service: AWS IoT

The configuration of an ML Detect Security Profile.

## Contents

### confidenceLevel

The sensitivity of anomalous behavior evaluation. Can be `Low`, `Medium`, or `High`.

Type: String

Valid Values: `LOW | MEDIUM | HIGH`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MaintenanceWindow

Service: AWS IoT

An optional configuration within the `SchedulingConfig` to setup a recurring maintenance window with a predetermined start time and duration for the rollout of a job document to all devices in a target group for a job.

## Contents

**durationInMinutes**

Displays the duration of the next maintenance window.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1430.

Required: Yes

**startTime**

Displays the start time of the next maintenance window.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ManagedJobTemplateSummary

Service: AWS IoT

An object that contains information about the managed template.

## Contents

**description**

The description for a managed template.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**environments**

A list of environments that are supported with the managed job template.

Type: Array of strings

Pattern: `[^\p{C}]+`

Required: No

**templateArn**

The Amazon Resource Name (ARN) for a managed template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `^arn:[!-~]+$`

Required: No

**templateName**

The unique Name for a managed template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

**templateVersion**

The version for a managed template.

Type: String

Pattern: `^[1-9]+.[0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MetricDatum

Service: AWS IoT

A metric.

## Contents

**timestamp**

The time the metric value was reported.

Type: Timestamp

Required: No

**value**

The value reported for the metric.

Type: MetricValue object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MetricDimension

Service: AWS IoT

The dimension of a metric.

## Contents

**dimensionName**

A unique identifier for the dimension.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**operator**

Defines how the `dimensionValues` of a dimension are interpreted. For example, for dimension type TOPIC_FILTER, the `IN` operator, a message will be counted only if its topic matches one of the topic filters. With `NOT_IN` operator, a message will be counted only if it doesn't match any of the topic filters. The operator is optional: if it's not provided (is `null`), it will be interpreted as `IN`.

Type: String

Valid Values: `IN | NOT_IN`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MetricsExportConfig

Service: AWS IoT

Set configurations for metrics export.

## Contents

**mqttTopic**

The MQTT topic that Device Defender Detect should publish messages to for metrics export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: Yes

**roleArn**

This role ARN has permission to publish MQTT messages, after which Device Defender Detect can assume the role and publish messages on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MetricToRetain

Service: AWS IoT

The metric you want to retain. Dimensions are optional.

## Contents

**metric**

What is measured by the behavior.

Type: String

Required: Yes

**exportMetric**

The value indicates exporting metrics related to the `MetricToRetain` when it's true.

Type: Boolean

Required: No

**metricDimension**

The dimension of a metric. This can't be used with custom metrics.

Type: MetricDimension object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MetricValue

Service: AWS IoT

The value to be compared with the `metric`.

## Contents

**cidrs**

If the `comparisonOperator` calls for a set of CIDRs, use this to specify that set to be compared with the `metric`.

Type: Array of strings

Length Constraints: Minimum length of 2. Maximum length of 43.

Pattern: `[a-fA-F0-9:\.\/]+`

Required: No

**count**

If the `comparisonOperator` calls for a numeric value, use this to specify that numeric value to be compared with the `metric`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**number**

The numeral value of a metric.

Type: Double

Required: No

**numbers**

The numeral values of a metric.

Type: Array of doubles

Required: No

**ports**

If the `comparisonOperator` calls for a set of ports, use this to specify that set to be compared with the `metric`.

Type: Array of integers

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

**strings**

The string values of a metric.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MitigationAction

Service: AWS IoT

Describes which changes should be applied as part of a mitigation action.

## Contents

**actionParams**

The set of parameters for this mitigation action. The parameters vary, depending on the kind of action you apply.

Type: MitigationActionParams object

Required: No

**id**

A unique identifier for the mitigation action.

Type: String

Required: No

**name**

A user-friendly name for the mitigation action.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**roleArn**

The IAM role ARN used to apply this mitigation action.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MitigationActionIdentifier

Service: AWS IoT

Information that identifies a mitigation action. This information is returned by ListMitigationActions.

## Contents

**actionArn**

The IAM role ARN used to apply this mitigation action.

Type: String

Required: No

**actionName**

The friendly name of the mitigation action.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**creationDate**

The date when this mitigation action was created.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# MitigationActionParams

Service: AWS IoT

The set of parameters for this mitigation action. You can specify only one type of parameter (in other words, you can apply only one action for each defined mitigation action).

## Contents

**addThingsToThingGroupParams**

Parameters to define a mitigation action that moves devices associated with a certificate to one or more specified thing groups, typically for quarantine.

Type: AddThingsToThingGroupParams object

Required: No

**enableIoTLoggingParams**

Parameters to define a mitigation action that enables AWS IoT Core logging at a specified level of detail.

Type: EnableIoTLoggingParams object

Required: No

**publishFindingToSnsParams**

Parameters to define a mitigation action that publishes findings to Amazon Simple Notification Service (Amazon SNS. You can implement your own custom actions in response to the Amazon SNS messages.

Type: PublishFindingToSnsParams object

Required: No

**replaceDefaultPolicyVersionParams**

Parameters to define a mitigation action that adds a blank policy to restrict permissions.

Type: ReplaceDefaultPolicyVersionParams object

Required: No

**updateCACertificateParams**

Parameters to define a mitigation action that changes the state of the CA certificate to inactive.

Type: UpdateCACertificateParams object

Required: No

**updateDeviceCertificateParams**

Parameters to define a mitigation action that changes the state of the device certificate to inactive.

Type: UpdateDeviceCertificateParams object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Mqtt5Configuration

Service: AWS IoT

The configuration to add user-defined properties to enrich MQTT 5 messages.

## Contents

### propagatingAttributes

An object that represents the propagating thing attributes and the connection attributes.

Type: Array of PropagatingAttribute objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MqttContext

Service: AWS IoT

Specifies the MQTT context to use for the test authorizer request

## Contents

**clientId**

The value of the `clientId` key in an MQTT authorization request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65535.

Pattern: `[\s\S]*`

Required: No

**password**

The value of the `password` key in an MQTT authorization request.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1. Maximum length of 65535.

Required: No

**username**

The value of the `username` key in an MQTT authorization request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65535.

Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MqttHeaders

Service: AWS IoT

Specifies MQTT Version 5.0 headers information. For more information, see MQTT from AWS IoT Core Developer Guide.

## Contents

**contentType**

A UTF-8 encoded string that describes the content of the publishing message.

For more information, see Content Type from the MQTT Version 5.0 specification.

Supports substitution templates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**correlationData**

The base64-encoded binary data used by the sender of the request message to identify which request the response message is for when it's received.

For more information, see Correlation Data from the MQTT Version 5.0 specification.

> **Note**
>
> This binary data must be based64-encoded.

Supports substitution templates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**messageExpiry**

A user-defined integer value that will persist a message at the message broker for a specified amount of time to ensure that the message will expire if it's no longer relevant to the subscriber. The value of `messageExpiry` represents the number of seconds before it expires. For more information about the limits of `messageExpiry`, see AWS IoT Core message broker and protocol limits and quotas from the AWS Reference Guide.

Supports substitution templates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**payloadFormatIndicator**

An `Enum` string value that indicates whether the payload is formatted as UTF-8.

Valid values are `UNSPECIFIED_BYTES` and `UTF8_DATA`.

For more information, see Payload Format Indicator from the MQTT Version 5.0 specification.

Supports substitution templates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**responseTopic**

A UTF-8 encoded string that's used as the topic name for a response message. The response topic is used to describe the topic which the receiver should publish to as part of the request-response flow. The topic must not contain wildcard characters.

For more information, see Response Topic from the MQTT Version 5.0 specification.

Supports substitution templates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**userProperties**

An array of key-value pairs that you define in the MQTT5 header.

Type: Array of UserProperty objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# NonCompliantResource

Service: AWS IoT

Information about the resource that was noncompliant with the audit check.

## Contents

**additionalInfo**

Other information about the noncompliant resource.

Type: String to string map

Required: No

**resourceIdentifier**

Information that identifies the noncompliant resource.

Type: ResourceIdentifier object

Required: No

**resourceType**

The type of the noncompliant resource.

Type: String

Valid Values: `DEVICE_CERTIFICATE | CA_CERTIFICATE | IOT_POLICY | COGNITO_IDENTITY_POOL | CLIENT_ID | ACCOUNT_SETTINGS | ROLE_ALIAS | IAM_ROLE | ISSUER_CERTIFICATE`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# OpenSearchAction

Service: AWS IoT

Describes an action that writes data to an Amazon OpenSearch Service domain.

## Contents

**endpoint**

The endpoint of your OpenSearch domain.

Type: String

Pattern: `https?://.*`

Required: Yes

**id**

The unique identifier for the document you are storing.

Type: String

Required: Yes

**index**

The OpenSearch index where you want to store your data.

Type: String

Required: Yes

**roleArn**

The IAM role ARN that has access to OpenSearch.

Type: String

Required: Yes

**type**

The type of document you are storing.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OTAUpdateFile

Service: AWS IoT

Describes a file to be associated with an OTA update.

## Contents

**attributes**

A list of name-attribute pairs. They won't be sent to devices as a part of the Job document.

Type: String to string map

Value Length Constraints: Minimum length of 0. Maximum length of 4096.

Value Pattern: `[\s\S]*`

Required: No

**codeSigning**

The code signing method of the file.

Type: CodeSigning object

Required: No

**fileLocation**

The location of the updated firmware.

Type: FileLocation object

Required: No

**fileName**

The name of the file.

Type: String

Required: No

**fileType**

An integer value you can include in the job document to allow your devices to identify the type of file received from the cloud.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 255.

Required: No

**fileVersion**

The file version.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OTAUpdateInfo

Service: AWS IoT

Information about an OTA update.

## Contents

**additionalParameters**

A collection of name/value pairs

Type: String to string map

Value Length Constraints: Minimum length of 0. Maximum length of 4096.

Value Pattern: `[\s\S]*`

Required: No

**awsIotJobArn**

The AWS IoT job ARN associated with the OTA update.

Type: String

Required: No

**awsIotJobId**

The AWS IoT job ID associated with the OTA update.

Type: String

Required: No

**awsJobExecutionsRolloutConfig**

Configuration for the rollout of OTA updates.

Type: AwsJobExecutionsRolloutConfig object

Required: No

**awsJobPresignedUrlConfig**

Configuration information for pre-signed URLs. Valid when `protocols` contains HTTP.

Type: AwsJobPresignedUrlConfig object

Required: No

**creationDate**

The date when the OTA update was created.

Type: Timestamp

Required: No

**description**

A description of the OTA update.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**errorInfo**

Error information associated with the OTA update.

Type: ErrorInfo object

Required: No

**lastModifiedDate**

The date when the OTA update was last updated.

Type: Timestamp

Required: No

**otaUpdateArn**

The OTA update ARN.

Type: String

Required: No

**otaUpdateFiles**

A list of files associated with the OTA update.

Type: Array of OTAUpdateFile objects

Array Members: Minimum number of 1 item.

Required: No

**otaUpdateId**

The OTA update ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**otaUpdateStatus**

The status of the OTA update.

Type: String

Valid Values: `CREATE_PENDING | CREATE_IN_PROGRESS | CREATE_COMPLETE | CREATE_FAILED | DELETE_IN_PROGRESS | DELETE_FAILED`

Required: No

**protocols**

The protocol used to transfer the OTA update image. Valid values are [HTTP], [MQTT], [HTTP, MQTT]. When both HTTP and MQTT are specified, the target device can choose the protocol.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: `MQTT | HTTP`

Required: No

**targets**

The targets of the OTA update.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

**targetSelection**

Specifies whether the OTA update will continue to run (CONTINUOUS), or will be complete after all those things specified as targets have completed the OTA update (SNAPSHOT). If continuous, the OTA update may also be run on a thing when a change is detected in a target. For example, an OTA update will run on a thing when the thing is added to a target group, even after the OTA update was completed by all things originally in the group.

Type: String

Valid Values: `CONTINUOUS | SNAPSHOT`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OTAUpdateSummary

Service: AWS IoT

An OTA update summary.

## Contents

**creationDate**

The date when the OTA update was created.

Type: Timestamp

Required: No

**otaUpdateArn**

The OTA update ARN.

Type: String

Required: No

**otaUpdateId**

The OTA update ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OutgoingCertificate

Service: AWS IoT

A certificate that has been transferred but not yet accepted.

## Contents

**certificateArn**

The certificate ARN.

Type: String

Required: No

**certificateId**

The certificate ID.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**creationDate**

The certificate creation date.

Type: Timestamp

Required: No

**transferDate**

The date the transfer was initiated.

Type: Timestamp

Required: No

**transferMessage**

The transfer message.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

Required: No

**transferredTo**

The AWS account to which the transfer was made.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PackageSummary

Service: AWS IoT

A summary of information about a software package.

## Contents

**creationDate**

The date that the package was created.

Type: Timestamp

Required: No

**defaultVersionName**

The name of the default package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: No

**lastModifiedDate**

The date that the package was last updated.

Type: Timestamp

Required: No

**packageName**

The name for the target software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PackageVersionArtifact

Service: AWS IoT

A specific package version artifact associated with a software package version.

## Contents

### s3Location

The S3 location.

Type: S3Location object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PackageVersionSummary

Service: AWS IoT

A summary of information about a package version.

## Contents

**creationDate**

The date that the package version was created.

Type: Timestamp

Required: No

**lastModifiedDate**

The date that the package version was last updated.

Type: Timestamp

Required: No

**packageName**

The name of the associated software package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-_.]+`

Required: No

**status**

The status of the package version. For more information, see Package version lifecycle.

Type: String

Valid Values: `DRAFT | PUBLISHED | DEPRECATED`

Required: No

**versionName**

The name of the target package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9-_.]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PercentPair

Service: AWS IoT

Describes the percentile and percentile value.

## Contents

**percent**

The percentile.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

**value**

The value of the percentile.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Policy

Service: AWS IoT

Describes an AWS IoT policy.

## Contents

**policyArn**

The policy ARN.

Type: String

Required: No

**policyName**

The policy name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PolicyVersion

Service: AWS IoT

Describes a policy version.

## Contents

**createDate**

The date and time the policy was created.

Type: Timestamp

Required: No

**isDefaultVersion**

Specifies whether the policy version is the default.

Type: Boolean

Required: No

**versionId**

The policy version ID.

Type: String

Pattern: `[0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PolicyVersionIdentifier

Service: AWS IoT

Information about the version of the policy associated with the resource.

## Contents

**policyName**

The name of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w+=,.@-]+`

Required: No

**policyVersionId**

The ID of the version of the policy associated with the resource.

Type: String

Pattern: `[0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PresignedUrlConfig

Service: AWS IoT

Configuration for pre-signed S3 URLs.

## Contents

**expiresInSec**

How long (in seconds) pre-signed URLs are valid. Valid values are 60 - 3600, the default value is 3600 seconds. Pre-signed URLs are generated when Jobs receives an MQTT request for the job document.

Type: Long

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

**roleArn**

The ARN of an IAM role that grants permission to download files from the S3 bucket where the job data/updates are stored. The role must also grant permission for IoT to download the files.

> **Important**
>
> For information about addressing the confused deputy problem, see cross-service confused deputy prevention in the *AWS IoT Core developer guide*.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PrincipalThingObject

Service: AWS IoT

An object that represents the thing and the type of relation it has with the principal.

## Contents

**thingName**

The name of the thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**thingPrincipalType**

The type of the relation you want to specify when you attach a principal to a thing. The value defaults to `NON_EXCLUSIVE_THING`.

- `EXCLUSIVE_THING` - Attaches the specified principal to the specified thing, exclusively. The thing will be the only thing that's attached to the principal.
- `NON_EXCLUSIVE_THING` - Attaches the specified principal to the specified thing. Multiple things can be attached to the principal.

Type: String

Valid Values: `EXCLUSIVE_THING | NON_EXCLUSIVE_THING`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# PropagatingAttribute

Service: AWS IoT

An object that represents the connection attribute, thing attribute, and the user property key.

## Contents

**connectionAttribute**

The attribute associated with the connection between a device and AWS IoT Core.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9:.]+`

Required: No

**thingAttribute**

The user-defined thing attribute that is propagating for MQTT 5 message enrichment.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Required: No

**userPropertyKey**

The key of the user property key-value pair.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9:$.]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ProvisioningHook

Service: AWS IoT

Structure that contains `payloadVersion` and `targetArn`.

## Contents

**targetArn**

The ARN of the target function.

*Note:* Only Lambda functions are currently supported.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

**payloadVersion**

The payload that was sent to the target function.

*Note:* Only Lambda functions are currently supported.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 32.

Pattern: `^[0-9-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ProvisioningTemplateSummary

Service: AWS IoT

A summary of information about a provisioning template.

## Contents

**creationDate**

The date when the provisioning template summary was created.

Type: Timestamp

Required: No

**description**

The description of the provisioning template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[^\p{C}]*`

Required: No

**enabled**

True if the fleet provision template is enabled, otherwise false.

Type: Boolean

Required: No

**lastModifiedDate**

The date when the provisioning template summary was last modified.

Type: Timestamp

Required: No

**templateArn**

The ARN of the provisioning template.

Type: String

Required: No

**templateName**

The name of the provisioning template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: No

**type**

The type you define in a provisioning template. You can create a template with only one type. You can't change the template type after its creation. The default value is `FLEET_PROVISIONING`. For more information about provisioning template, see: Provisioning template.

Type: String

Valid Values: `FLEET_PROVISIONING | JITP`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ProvisioningTemplateVersionSummary

Service: AWS IoT

A summary of information about a fleet provision template version.

## Contents

**creationDate**

The date when the provisioning template version was created

Type: Timestamp

Required: No

**isDefaultVersion**

True if the provisioning template version is the default version, otherwise false.

Type: Boolean

Required: No

**versionId**

The ID of the fleet provisioning template version.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PublishFindingToSnsParams

Service: AWS IoT

Parameters to define a mitigation action that publishes findings to Amazon SNS. You can implement your own custom actions in response to the Amazon SNS messages.

## Contents

### topicArn

The ARN of the topic to which you want to publish the findings.

Type: String

Length Constraints: Maximum length of 350.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PutAssetPropertyValueEntry

Service: AWS IoT

An asset property value entry containing the following information.

## Contents

**propertyValues**

A list of property values to insert that each contain timestamp, quality, and value (TQV) information.

Type: Array of AssetPropertyValue objects

Array Members: Minimum number of 1 item.

Required: Yes

**assetId**

The ID of the AWS IoT SiteWise asset. You must specify either a `propertyAlias` or both an `aliasId` and a `propertyId`. Accepts substitution templates.

Type: String

Required: No

**entryId**

Optional. A unique identifier for this entry that you can define to better track which message caused an error in case of failure. Accepts substitution templates. Defaults to a new UUID.

Type: String

Required: No

**propertyAlias**

The name of the property alias associated with your asset property. You must specify either a `propertyAlias` or both an `aliasId` and a `propertyId`. Accepts substitution templates.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**propertyId**

The ID of the asset's property. You must specify either a `propertyAlias` or both an `aliasId` and a `propertyId`. Accepts substitution templates.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PutItemInput

Service: AWS IoT

The input for the DynamoActionVS action that specifies the DynamoDB table to which the message data will be written.

## Contents

### tableName

The table where the message data will be written.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RateIncreaseCriteria

Service: AWS IoT

Allows you to define a criteria to initiate the increase in rate of rollout for a job.

## Contents

**numberOfNotifiedThings**

The threshold for number of notified things that will initiate the increase in rate of rollout.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**numberOfSucceededThings**

The threshold for number of succeeded things that will initiate the increase in rate of rollout.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RegistrationConfig

Service: AWS IoT

The registration configuration.

## Contents

**roleArn**

The ARN of the role.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**templateBody**

The template body.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10240.

Pattern: `[\s\S]*`

Required: No

**templateName**

The name of the provisioning template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9A-Za-z_-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RelatedResource

Service: AWS IoT

Information about a related resource.

## Contents

**additionalInfo**

Other information about the resource.

Type: String to string map

Required: No

**resourceIdentifier**

Information that identifies the resource.

Type: ResourceIdentifier object

Required: No

**resourceType**

The type of resource.

Type: String

Valid Values: `DEVICE_CERTIFICATE | CA_CERTIFICATE | IOT_POLICY | COGNITO_IDENTITY_POOL | CLIENT_ID | ACCOUNT_SETTINGS | ROLE_ALIAS | IAM_ROLE | ISSUER_CERTIFICATE`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# ReplaceDefaultPolicyVersionParams

Service: AWS IoT

Parameters to define a mitigation action that adds a blank policy to restrict permissions.

## Contents

### templateName

The name of the template to be applied. The only supported value is `BLANK_POLICY`.

Type: String

Valid Values: `BLANK_POLICY`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RepublishAction

Service: AWS IoT

Describes an action to republish to another topic.

## Contents

**roleArn**

The ARN of the IAM role that grants access.

Type: String

Required: Yes

**topic**

The name of the MQTT topic.

Type: String

Required: Yes

**headers**

MQTT Version 5.0 headers information. For more information, see MQTT from the AWS IoT Core Developer Guide.

Type: MqttHeaders object

Required: No

**qos**

The Quality of Service (QoS) level to use when republishing messages. The default value is 0.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ResourceIdentifier

Service: AWS IoT

Information that identifies the noncompliant resource.

## Contents

**account**

The account with which the resource is associated.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

**caCertificateId**

The ID of the CA certificate used to authorize the certificate.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**clientId**

The client ID.

Type: String

Required: No

**cognitoIdentityPoolId**

The ID of the Amazon Cognito identity pool.

Type: String

Required: No

**deviceCertificateArn**

The ARN of the identified device certificate.

Type: String

Required: No

**deviceCertificateId**

The ID of the certificate attached to the resource.

Type: String

Length Constraints: Fixed length of 64.

Pattern: `(0x)?[a-fA-F0-9]+`

Required: No

**iamRoleArn**

The ARN of the IAM role that has overly permissive actions.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**issuerCertificateIdentifier**

The issuer certificate identifier.

Type: IssuerCertificateIdentifier object

Required: No

**policyVersionIdentifier**

The version of the policy associated with the resource.

Type: PolicyVersionIdentifier object

Required: No

**roleAliasArn**

The ARN of the role alias that has overly permissive actions.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RetryCriteria

Service: AWS IoT

The criteria that determines how many retries are allowed for each failure type for a job.

## Contents

**failureType**

The type of job execution failures that can initiate a job retry.

Type: String

Valid Values: `FAILED | TIMED_OUT | ALL`

Required: Yes

**numberOfRetries**

The number of retries allowed for a failure type for the job.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RoleAliasDescription

Service: AWS IoT

Role alias description.

## Contents

**creationDate**

The UNIX timestamp of when the role alias was created.

Type: Timestamp

Required: No

**credentialDurationSeconds**

The number of seconds for which the credential is valid.

Type: Integer

Valid Range: Minimum value of 900. Maximum value of 43200.

Required: No

**lastModifiedDate**

The UNIX timestamp of when the role alias was last modified.

Type: Timestamp

Required: No

**owner**

The role alias owner.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]+`

Required: No

**roleAlias**

The role alias.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w=,@-]+`

Required: No

**roleAliasArn**

The ARN of the role alias.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

**roleArn**

The role ARN.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3Action

Service: AWS IoT

Describes an action to write data to an Amazon S3 bucket.

## Contents

**bucketName**

The Amazon S3 bucket.

Type: String

Required: Yes

**key**

The object key. For more information, see Actions, resources, and condition keys for Amazon S3.

Type: String

Required: Yes

**roleArn**

The ARN of the IAM role that grants access.

Type: String

Required: Yes

**cannedAcl**

The Amazon S3 canned ACL that controls access to the object identified by the object key. For more information, see S3 canned ACLs.

Type: String

Valid Values: `private | public-read | public-read-write | aws-exec-read | authenticated-read | bucket-owner-read | bucket-owner-full-control | log-delivery-write`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3Destination

Service: AWS IoT

Describes the location of updated firmware in S3.

## Contents

**bucket**

The S3 bucket that contains the updated firmware.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**prefix**

The S3 prefix.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3Location

Service: AWS IoT

The S3 location.

## Contents

**bucket**

The S3 bucket.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**key**

The S3 key.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**version**

The S3 bucket version.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SalesforceAction

Service: AWS IoT

Describes an action to write a message to a Salesforce IoT Cloud Input Stream.

## Contents

**token**

The token used to authenticate access to the Salesforce IoT Cloud Input Stream. The token is available from the Salesforce IoT Cloud platform after creation of the Input Stream.

Type: String

Length Constraints: Minimum length of 40.

Required: Yes

**url**

The URL exposed by the Salesforce IoT Cloud Input Stream. The URL is available from the Salesforce IoT Cloud platform after creation of the Input Stream.

Type: String

Length Constraints: Maximum length of 2000.

Pattern: `https://ingestion-[a-zA-Z0-9]{1,12}\.[a-zA-Z0-9]+\.((sfdc-matrix\.net)|(sfdcnow\.com))/streams/\w{1,20}/\w{1,20}/event`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Sbom

Service: AWS IoT

A specific software bill of matrerials associated with a software package version.

## Contents

### s3Location

The S3 location.

Type: S3Location object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SbomValidationResultSummary

Service: AWS IoT

A summary of the validation results for a specific software bill of materials (SBOM) attached to a software package version.

## Contents

**errorCode**

The `errorCode` representing the validation failure error if the SBOM validation failed.

Type: String

Valid Values: `INCOMPATIBLE_FORMAT | FILE_SIZE_LIMIT_EXCEEDED`

Required: No

**errorMessage**

The `errorMessage` representing the validation failure error if the SBOM validation failed.

Type: String

Required: No

**fileName**

The name of the SBOM file.

Type: String

Required: No

**validationResult**

The end result of the SBOM validation.

Type: String

Valid Values: `FAILED | SUCCEEDED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ScheduledAuditMetadata

Service: AWS IoT

Information about the scheduled audit.

## Contents

**dayOfMonth**

The day of the month on which the scheduled audit is run (if the `frequency` is "MONTHLY"). If days 29-31 are specified, and the month does not have that many days, the audit takes place on the "LAST" day of the month.

Type: String

Pattern: `^([1-9]|[12][0-9]|3[01])$|^LAST$`

Required: No

**dayOfWeek**

The day of the week on which the scheduled audit is run (if the `frequency` is "WEEKLY" or "BIWEEKLY").

Type: String

Valid Values: `SUN | MON | TUE | WED | THU | FRI | SAT`

Required: No

**frequency**

How often the scheduled audit occurs.

Type: String

Valid Values: `DAILY | WEEKLY | BIWEEKLY | MONTHLY`

Required: No

**scheduledAuditArn**

The ARN of the scheduled audit.

Type: String

Required: No

**scheduledAuditName**

The name of the scheduled audit.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ScheduledJobRollout

Service: AWS IoT

Displays the next seven maintenance window occurrences and their start times.

## Contents

### startTime

Displays the start times of the next seven maintenance window occurrences.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SchedulingConfig

Service: AWS IoT

Specifies the date and time that a job will begin the rollout of the job document to all devices in the target group. Additionally, you can specify the end behavior for each job execution when it reaches the scheduled end time.

## Contents

**endBehavior**

Specifies the end behavior for all job executions after a job reaches the selected `endTime`. If `endTime` is not selected when creating the job, then `endBehavior` does not apply.

Type: String

Valid Values: `STOP_ROLLOUT | CANCEL | FORCE_CANCEL`

Required: No

**endTime**

The time a job will stop rollout of the job document to all devices in the target group for a job. The `endTime` must take place no later than two years from the current time and be scheduled a minimum of thirty minutes from the current time. The minimum duration between `startTime` and `endTime` is thirty minutes. The maximum duration between `startTime` and `endTime` is two years. The date and time format for the `endTime` is YYYY-MM-DD for the date and HH:MM for the time.

For more information on the syntax for `endTime` when using an API command or the AWS Command Line Interface, see Timestamp.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

**maintenanceWindows**

An optional configuration within the `SchedulingConfig` to setup a recurring maintenance window with a predetermined start time and duration for the rollout of a job document to all devices in a target group for a job.

Type: Array of MaintenanceWindow objects

Required: No

**startTime**

The time a job will begin rollout of the job document to all devices in the target group for a job. The `startTime` can be scheduled up to a year in advance and must be scheduled a minimum of thirty minutes from the current time. The date and time format for the `startTime` is YYYY-MM-DD for the date and HH:MM for the time.

For more information on the syntax for `startTime` when using an API command or the AWS Command Line Interface, see Timestamp.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SecurityProfileIdentifier

Service: AWS IoT

Identifying information for a Device Defender security profile.

## Contents

**arn**

The ARN of the security profile.

Type: String

Required: Yes

**name**

The name you've given to the security profile.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SecurityProfileTarget

Service: AWS IoT

A target to which an alert is sent when a security profile behavior is violated.

## Contents

**arn**

The ARN of the security profile.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SecurityProfileTargetMapping

Service: AWS IoT

Information about a security profile and the target associated with it.

## Contents

**securityProfileIdentifier**

Information that identifies the security profile.

Type: SecurityProfileIdentifier object

Required: No

**target**

Information about the target (thing group) associated with the security profile.

Type: SecurityProfileTarget object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ServerCertificateConfig

Service: AWS IoT

The server certificate configuration.

## Contents

**enableOCSPCheck**

A Boolean value that indicates whether Online Certificate Status Protocol (OCSP) server certificate check is enabled or not.

For more information, see Server certificate configuration for OCSP stapling from AWS IoT Core Developer Guide.

Type: Boolean

Required: No

**ocspAuthorizedResponderArn**

The Amazon Resource Name (ARN) for an X.509 certificate stored in AWS Certificate Manager (ACM). If provided, AWS IoT Core will use this certificate to validate the signature of the received OCSP response. The OCSP responder must sign responses using either this authorized responder certificate or the issuing certificate, depending on whether the ARN is provided or not. The certificate must be in the same AWS account and region as the domain configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws(-cn|-us-gov|-iso-b|-iso)?:acm:[a-z]{2}-(gov-|iso-|isob-)?[a-z]{4,9}-\d{1}:\d{12}:certificate/[a-zA-Z0-9/-]+`

Required: No

**ocspLambdaArn**

The Amazon Resource Name (ARN) for a Lambda function that acts as a Request for Comments (RFC) 6960-compliant Online Certificate Status Protocol (OCSP) responder, supporting basic OCSP responses. The Lambda function accepts a base64-encoding of the OCSP request in the Distinguished Encoding Rules (DER) format. The Lambda function's response is also a

base64-encoded OCSP response in the DER format. The response size must not exceed 4 kilobytes (KiB). The Lambda function must be in the same AWS account and region as the domain configuration. For more information, see Configuring server certificate OCSP for private endpoints in AWS IoT Core from the AWS IoT Core developer guide.

Type: String

Length Constraints: Maximum length of 140.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ServerCertificateSummary

Service: AWS IoT

An object that contains information about a server certificate.

## Contents

**serverCertificateArn**

The ARN of the server certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws(-cn|-us-gov|-iso-b|-iso)?:acm:[a-z]{2}-(gov-|iso-|isob-)?[a-z]{4,9}-\d{1}:\d{12}:certificate/[a-zA-Z0-9/-]+`

Required: No

**serverCertificateStatus**

The status of the server certificate.

Type: String

Valid Values: `INVALID | VALID`

Required: No

**serverCertificateStatusDetail**

Details that explain the status of the server certificate.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SigningProfileParameter

Service: AWS IoT

Describes the code-signing profile.

## Contents

**certificateArn**

Certificate ARN.

Type: String

Required: No

**certificatePathOnDevice**

The location of the code-signing certificate on your device.

Type: String

Required: No

**platform**

The hardware platform of your device.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SigV4Authorization

Service: AWS IoT

For more information, see Signature Version 4 signing process.

## Contents

**roleArn**

The ARN of the signing role.

Type: String

Required: Yes

**serviceName**

The service name to use while signing with Sig V4.

Type: String

Required: Yes

**signingRegion**

The signing region.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SnsAction

Service: AWS IoT

Describes an action to publish to an Amazon SNS topic.

## Contents

**roleArn**

The ARN of the IAM role that grants access.

Type: String

Required: Yes

**targetArn**

The ARN of the SNS topic.

Type: String

Required: Yes

**messageFormat**

(Optional) The message format of the message to publish. Accepted values are "JSON" and "RAW". The default value of the attribute is "RAW". SNS uses this setting to determine if the payload should be parsed and relevant platform-specific bits of the payload should be extracted. To read more about SNS message formats, see https://docs.aws.amazon.com/sns/latest/dg/json-formats.html refer to their official documentation.

Type: String

Valid Values: `RAW | JSON`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SqsAction

Service: AWS IoT

Describes an action to publish data to an Amazon SQS queue.

## Contents

**queueUrl**

The URL of the Amazon SQS queue.

Type: String

Required: Yes

**roleArn**

The ARN of the IAM role that grants access.

Type: String

Required: Yes

**useBase64**

Specifies whether to use Base64 encoding.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StartSigningJobParameter

Service: AWS IoT

Information required to start a signing job.

## Contents

**destination**

The location to write the code-signed file.

Type: Destination object

Required: No

**signingProfileName**

The code-signing profile name.

Type: String

Required: No

**signingProfileParameter**

Describes the code-signing profile.

Type: SigningProfileParameter object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StatisticalThreshold

Service: AWS IoT

A statistical ranking (percentile) that indicates a threshold value by which a behavior is determined to be in compliance or in violation of the behavior.

## Contents

### statistic

The percentile that resolves to a threshold value by which compliance with a behavior is determined. Metrics are collected over the specified period (`durationSeconds`) from all reporting devices in your account and statistical ranks are calculated. Then, the measurements from a device are collected over the same period. If the accumulated measurements from the device fall above or below (`comparisonOperator`) the value associated with the percentile specified, then the device is considered to be in compliance with the behavior, otherwise a violation occurs.

Type: String

Pattern: `(p0|p0\.1|p0\.01|p1|p10|p50|p90|p99|p99\.9|p99\.99|p100)`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Statistics

Service: AWS IoT

A map of key-value pairs for all supported statistics. For issues with missing or unexpected values for this API, consult Fleet indexing troubleshooting guide.

## Contents

**average**

The average of the aggregated field values.

Type: Double

Required: No

**count**

The count of things that match the query string criteria and contain a valid aggregation field value.

Type: Integer

Required: No

**maximum**

The maximum aggregated field value.

Type: Double

Required: No

**minimum**

The minimum aggregated field value.

Type: Double

Required: No

**stdDeviation**

The standard deviation of the aggregated field values.

Type: Double

Required: No

**sum**

The sum of the aggregated field values.

Type: Double

Required: No

**sumOfSquares**

The sum of the squares of the aggregated field values.

Type: Double

Required: No

**variance**

The variance of the aggregated field values.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StatusReason

Service: AWS IoT

Provide additional context about the status of a command execution using a reason code and description.

## Contents

**reasonCode**

A code that provides additional context for the command execution status.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `[A-Z0-9_-]+`

Required: Yes

**reasonDescription**

A literal string for devices to optionally provide additional information about the reason code for a command execution status.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[^\p{C}]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StepFunctionsAction

Service: AWS IoT

Starts execution of a Step Functions state machine.

## Contents

**roleArn**

The ARN of the role that grants IoT permission to start execution of a state machine ("Action":"states:StartExecution").

Type: String

Required: Yes

**stateMachineName**

The name of the Step Functions state machine whose execution will be started.

Type: String

Required: Yes

**executionNamePrefix**

(Optional) A name will be given to the state machine execution consisting of this prefix followed by a UUID. Step Functions automatically creates a unique name for each state machine execution if one is not provided.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Stream

Service: AWS IoT

Describes a group of files that can be streamed.

## Contents

**fileId**

The ID of a file associated with a stream.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 255.

Required: No

**streamId**

The stream ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StreamFile

Service: AWS IoT

Represents a file to stream.

## Contents

**fileId**

The file ID.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 255.

Required: No

**s3Location**

The location of the file in S3.

Type: S3Location object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StreamInfo

Service: AWS IoT

Information about a stream.

## Contents

**createdAt**

The date when the stream was created.

Type: Timestamp

Required: No

**description**

The description of the stream.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**files**

The files to stream.

Type: Array of StreamFile objects

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: No

**lastUpdatedAt**

The date when the stream was last updated.

Type: Timestamp

Required: No

**roleArn**

An IAM role AWS IoT assumes to access your S3 files.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**streamArn**

The stream ARN.

Type: String

Required: No

**streamId**

The stream ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**streamVersion**

The stream version.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StreamSummary

Service: AWS IoT

A summary of a stream.

## Contents

**description**

A description of the stream.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[^\p{C}]+`

Required: No

**streamArn**

The stream ARN.

Type: String

Required: No

**streamId**

The stream ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**streamVersion**

The stream version.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Tag

Service: AWS IoT

A set of key/value pairs that are used to manage the resource.

## Contents

**Key**

The tag's key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

**Value**

The tag's value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TaskStatistics

Service: AWS IoT

Statistics for the checks performed during the audit.

## Contents

**canceledChecks**

The number of checks that did not run because the audit was canceled.

Type: Integer

Required: No

**compliantChecks**

The number of checks that found compliant resources.

Type: Integer

Required: No

**failedChecks**

The number of checks.

Type: Integer

Required: No

**inProgressChecks**

The number of checks in progress.

Type: Integer

Required: No

**nonCompliantChecks**

The number of checks that found noncompliant resources.

Type: Integer

Required: No

**totalChecks**

The number of checks in this audit.

Type: Integer

Required: No

**waitingForDataCollectionChecks**

The number of checks waiting for data collection.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TaskStatisticsForAuditCheck

Service: AWS IoT

Provides summary counts of how many tasks for findings are in a particular state. This information is included in the response from DescribeAuditMitigationActionsTask.

## Contents

**canceledFindingsCount**

The number of findings to which the mitigation action task was canceled when applied.

Type: Long

Required: No

**failedFindingsCount**

The number of findings for which at least one of the actions failed when applied.

Type: Long

Required: No

**skippedFindingsCount**

The number of findings skipped because of filter conditions provided in the parameters to the command.

Type: Long

Required: No

**succeededFindingsCount**

The number of findings for which all mitigation actions succeeded when applied.

Type: Long

Required: No

**totalFindingsCount**

The total number of findings to which a task is being applied.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TermsAggregation

Service: AWS IoT

Performs an aggregation that will return a list of buckets. The list of buckets is a ranked list of the number of occurrences of an aggregation field value.

## Contents

**maxBuckets**

The number of buckets to return in the response. Default to 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingAttribute

Service: AWS IoT

The properties of the thing, including thing name, thing type name, and a list of thing attributes.

## Contents

**attributes**

A list of thing attributes which are name-value pairs.

Type: String to string map

Key Length Constraints: Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Value Length Constraints: Maximum length of 800.

Value Pattern: `[a-zA-Z0-9_.,@/:#=\[\]-]*`

Required: No

**thingArn**

The thing ARN.

Type: String

Required: No

**thingName**

The name of the thing.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingTypeName**

The name of the thing type, if the thing has been associated with a type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**version**

The version of the thing record in the registry.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingConnectivity

Service: AWS IoT

The connectivity status of the thing.

## Contents

**cleanSession**

Indicates whether the client is using a clean session. Returns `true` for clean sessions.

Type: Boolean

Required: No

**clientId**

The unique identifier of the MQTT client.

Type: String

Required: No

**connected**

True if the thing is connected to the AWS IoT Core service; false if it is not connected.

Type: Boolean

Required: No

**disconnectReason**

The reason that the client is disconnected.

Type: String

Required: No

**keepAliveDuration**

The keep-alive interval in seconds that the client specified when establishing the connection.

Type: Integer

Required: No

**sessionExpiry**

The session expiry interval in seconds for the MQTT client connection. This value indicates how long the session will remain active after the client disconnects.

Type: Long

Required: No

**timestamp**

The epoch time (in milliseconds) when the thing last connected or disconnected.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingDocument

Service: AWS IoT

The thing search index document.

## Contents

**attributes**

The attributes.

Type: String to string map

Key Length Constraints: Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Value Length Constraints: Maximum length of 800.

Value Pattern: `[a-zA-Z0-9_.,@/:#=\[\]-]*`

Required: No

**connectivity**

Indicates whether the thing is connected to the AWS IoT Core service.

Type: ThingConnectivity object

Required: No

**deviceDefender**

Contains Device Defender data.

For more information about Device Defender, see Device Defender.

Type: String

Required: No

**shadow**

The unnamed shadow and named shadow.

For more information about shadows, see AWS IoT Device Shadow service.

Type: String

Required: No

**thingGroupNames**

Thing group and billing group names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingId**

The thing ID.

Type: String

Required: No

**thingName**

The thing name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingTypeName**

The thing type name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingGroupDocument

Service: AWS IoT

The thing group search index document.

## Contents

**attributes**

The thing group attributes.

Type: String to string map

Key Length Constraints: Maximum length of 128.

Key Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Value Length Constraints: Maximum length of 800.

Value Pattern: `[a-zA-Z0-9_.,@/:#=\[\]-]*`

Required: No

**parentGroupNames**

Parent group names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingGroupDescription**

The thing group description.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[\p{Graph}\x20]*`

Required: No

**thingGroupId**

The thing group ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

**thingGroupName**

The thing group name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingGroupIndexingConfiguration

Service: AWS IoT

Thing group indexing configuration.

## Contents

**thingGroupIndexingMode**

Thing group indexing mode.

Type: String

Valid Values: `OFF | ON`

Required: Yes

**customFields**

A list of thing group fields to index. This list cannot contain any managed fields. Use the GetIndexingConfiguration API to get a list of managed fields.

Contains custom field names and their data type.

Type: Array of Field objects

Required: No

**managedFields**

Contains fields that are indexed and whose types are already known by the Fleet Indexing service. This is an optional field. For more information, see Managed fields in the *AWS IoT Core Developer Guide*.

> **Note**
>
> You can't modify managed fields by updating fleet indexing configuration.

Type: Array of Field objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingGroupMetadata

Service: AWS IoT

Thing group metadata.

## Contents

**creationDate**

The UNIX timestamp of when the thing group was created.

Type: Timestamp

Required: No

**parentGroupName**

The parent thing group name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**rootToParentThingGroups**

The root parent thing group.

Type: Array of GroupNameAndArn objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingGroupProperties

Service: AWS IoT

Thing group properties.

## Contents

**attributePayload**

The thing group attributes in JSON format.

Type: AttributePayload object

Required: No

**thingGroupDescription**

The thing group description.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[\p{Graph}\x20]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingIndexingConfiguration

Service: AWS IoT

The thing indexing configuration. For more information, see Managing Thing Indexing.

## Contents

**thingIndexingMode**

Thing indexing mode. Valid values are:

- REGISTRY – Your thing index contains registry data only.
- REGISTRY_AND_SHADOW - Your thing index contains registry and shadow data.
- OFF - Thing indexing is disabled.

Type: String

Valid Values: `OFF | REGISTRY | REGISTRY_AND_SHADOW`

Required: Yes

**customFields**

Contains custom field names and their data type.

Type: Array of Field objects

Required: No

**deviceDefenderIndexingMode**

Device Defender indexing mode. Valid values are:

- VIOLATIONS – Your thing index contains Device Defender violations. To enable Device Defender indexing, *deviceDefenderIndexingMode* must not be set to OFF.
- OFF - Device Defender indexing is disabled.

For more information about Device Defender violations, see Device Defender Detect.

Type: String

Valid Values: `OFF | VIOLATIONS`

Required: No

**filter**

Provides additional selections for named shadows and geolocation data.

To add named shadows to your fleet indexing configuration, set `namedShadowIndexingMode` to be ON and specify your shadow names in `namedShadowNames` filter.

To add geolocation data to your fleet indexing configuration:

- If you store geolocation data in a class/unnamed shadow, set `thingIndexingMode` to be `REGISTRY_AND_SHADOW` and specify your geolocation data in `geoLocations` filter.
- If you store geolocation data in a named shadow, set `namedShadowIndexingMode` to be `ON`, add the shadow name in `namedShadowNames` filter, and specify your geolocation data in `geoLocations` filter. For more information, see Managing fleet indexing.

Type: IndexingFilter object

Required: No

**managedFields**

Contains fields that are indexed and whose types are already known by the Fleet Indexing service. This is an optional field. For more information, see Managed fields in the *AWS IoT Core Developer Guide*.

> **Note**
>
> You can't modify managed fields by updating fleet indexing configuration.

Type: Array of Field objects

Required: No

**namedShadowIndexingMode**

Named shadow indexing mode. Valid values are:

- ON – Your thing index contains named shadow. To enable thing named shadow indexing, *namedShadowIndexingMode* must not be set to OFF.
- OFF - Named shadow indexing is disabled.

For more information about Shadows, see AWS IoT Device Shadow service.

Type: String

Valid Values: `OFF` | `ON`

Required: No

**thingConnectivityIndexingMode**

Thing connectivity indexing mode. Valid values are:

- STATUS – Your thing index contains connectivity status. To enable thing connectivity indexing, *thingIndexMode* must not be set to OFF.
- OFF - Thing connectivity status indexing is disabled.

Type: String

Valid Values: `OFF` | `STATUS`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingPrincipalObject

Service: AWS IoT

An object that represents the principal and the type of relation it has with the thing.

## Contents

**principal**

The principal of the thing principal object.

Type: String

Required: Yes

**thingPrincipalType**

The type of the relation you want to specify when you attach a principal to a thing. The value defaults to `NON_EXCLUSIVE_THING`.

- `EXCLUSIVE_THING` - Attaches the specified principal to the specified thing, exclusively. The thing will be the only thing that's attached to the principal.
- `NON_EXCLUSIVE_THING` - Attaches the specified principal to the specified thing. Multiple things can be attached to the principal.

Type: String

Valid Values: `EXCLUSIVE_THING | NON_EXCLUSIVE_THING`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingTypeDefinition

Service: AWS IoT

The definition of the thing type, including thing type name and description.

## Contents

**thingTypeArn**

The thing type ARN.

Type: String

Required: No

**thingTypeMetadata**

The ThingTypeMetadata contains additional information about the thing type including: creation date and time, a value indicating whether the thing type is deprecated, and a date and time when it was deprecated.

Type: ThingTypeMetadata object

Required: No

**thingTypeName**

The name of the thing type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingTypeProperties**

The ThingTypeProperties for the thing type.

Type: ThingTypeProperties object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingTypeMetadata

Service: AWS IoT

The ThingTypeMetadata contains additional information about the thing type including: creation date and time, a value indicating whether the thing type is deprecated, and a date and time when time was deprecated.

## Contents

**creationDate**

The date and time when the thing type was created.

Type: Timestamp

Required: No

**deprecated**

Whether the thing type is deprecated. If **true**, no new things could be associated with this type.

Type: Boolean

Required: No

**deprecationDate**

The date and time when the thing type was deprecated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ThingTypeProperties

Service: AWS IoT

The ThingTypeProperties contains information about the thing type including: a thing type description, and a list of searchable thing attribute names.

## Contents

**mqtt5Configuration**

The configuration to add user-defined properties to enrich MQTT 5 messages.

Type: Mqtt5Configuration object

Required: No

**searchableAttributes**

A list of searchable thing attribute names.

Type: Array of strings

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9_.,@/:#-]+`

Required: No

**thingTypeDescription**

The description of the thing type.

Type: String

Length Constraints: Maximum length of 2028.

Pattern: `[\p{Graph}\x20]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TimeFilter

Service: AWS IoT

A filter that can be used to list command executions for a device that started or completed before or after a particular date and time.

## Contents

**after**

Filter to display command executions that started or completed only after a particular date and time.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

**before**

Filter to display command executions that started or completed only before a particular date and time.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TimeoutConfig

Service: AWS IoT

Specifies the amount of time each device has to finish its execution of the job. A timer is started when the job execution status is set to `IN_PROGRESS`. If the job execution status is not set to another terminal state before the timer expires, it will be automatically set to `TIMED_OUT`.

## Contents

### inProgressTimeoutInMinutes

Specifies the amount of time, in minutes, this device has to finish execution of this job. The timeout interval can be anywhere between 1 minute and 7 days (1 to 10080 minutes). The in progress timer can't be updated and will apply to all job executions for the job. Whenever a job execution remains in the IN_PROGRESS status for longer than this interval, the job execution will fail and switch to the terminal `TIMED_OUT` status.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TimestreamAction

Service: AWS IoT

The Timestream rule action writes attributes (measures) from an MQTT message into an Amazon Timestream table. For more information, see the Timestream topic rule action documentation.

## Contents

**databaseName**

The name of an Amazon Timestream database.

Type: String

Required: Yes

**dimensions**

Metadata attributes of the time series that are written in each measure record.

Type: Array of TimestreamDimension objects

Array Members: Minimum number of 1 item. Maximum number of 128 items.

Required: Yes

**roleArn**

The ARN of the role that grants permission to write to the Amazon Timestream database table.

Type: String

Required: Yes

**tableName**

The name of the database table into which to write the measure records.

Type: String

Required: Yes

**timestamp**

Specifies an application-defined value to replace the default value assigned to the Timestream record's timestamp in the `time` column.

You can use this property to specify the value and the precision of the Timestream record's timestamp. You can specify a value from the message payload or a value computed by a substitution template.

If omitted, the topic rule action assigns the timestamp, in milliseconds, at the time it processed the rule.

Type: TimestreamTimestamp object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TimestreamDimension

Service: AWS IoT

Metadata attributes of the time series that are written in each measure record.

## Contents

**name**

The metadata dimension name. This is the name of the column in the Amazon Timestream database table record.

Dimensions cannot be named: `measure_name`, `measure_value`, or `time`. These names are reserved. Dimension names cannot start with `ts_` or `measure_value` and they cannot contain the colon (`:`) character.

Type: String

Required: Yes

**value**

The value to write in this column of the database record.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TimestreamTimestamp

Service: AWS IoT

Describes how to interpret an application-defined timestamp value from an MQTT message payload and the precision of that value.

## Contents

**unit**

The precision of the timestamp value that results from the expression described in `value`.

Valid values: `SECONDS` | `MILLISECONDS` | `MICROSECONDS` | `NANOSECONDS`. The default is `MILLISECONDS`.

Type: String

Required: Yes

**value**

An expression that returns a long epoch time value.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TlsConfig

Service: AWS IoT

An object that specifies the TLS configuration for a domain.

## Contents

### securityPolicy

The security policy for a domain configuration. For more information, see Security policies in the *AWS IoT Core developer guide*.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TlsContext

Service: AWS IoT

Specifies the TLS context to use for the test authorizer request.

## Contents

### serverName

The value of the `serverName` key in a TLS authorization request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TopicRule

Service: AWS IoT

Describes a rule.

## Contents

**actions**

The actions associated with the rule.

Type: Array of Action objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

**awsIotSqlVersion**

The version of the SQL rules engine to use when evaluating the rule.

Type: String

Required: No

**createdAt**

The date and time the rule was created.

Type: Timestamp

Required: No

**description**

The description of the rule.

Type: String

Required: No

**errorAction**

The action to perform when an error occurs.

Type: Action object

Required: No

**ruleDisabled**

Specifies whether the rule is disabled.

Type: Boolean

Required: No

**ruleName**

The name of the rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: No

**sql**

The SQL statement used to query the topic. When using a SQL query with multiple lines, be sure to escape the newline characters.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TopicRuleDestination

Service: AWS IoT

A topic rule destination.

## Contents

**arn**

The topic rule destination URL.

Type: String

Required: No

**createdAt**

The date and time when the topic rule destination was created.

Type: Timestamp

Required: No

**httpUrlProperties**

Properties of the HTTP URL.

Type: HttpUrlDestinationProperties object

Required: No

**lastUpdatedAt**

The date and time when the topic rule destination was last updated.

Type: Timestamp

Required: No

**status**

The status of the topic rule destination. Valid values are:

IN_PROGRESS

A topic rule destination was created but has not been confirmed. You can set `status` to `IN_PROGRESS` by calling `UpdateTopicRuleDestination`. Calling

UpdateTopicRuleDestination causes a new confirmation challenge to be sent to your confirmation endpoint.

ENABLED

Confirmation was completed, and traffic to this destination is allowed. You can set status to DISABLED by calling UpdateTopicRuleDestination.

DISABLED

Confirmation was completed, and traffic to this destination is not allowed. You can set status to ENABLED by calling UpdateTopicRuleDestination.

ERROR

Confirmation could not be completed, for example if the confirmation timed out. You can call GetTopicRuleDestination for details about the error. You can set status to IN_PROGRESS by calling UpdateTopicRuleDestination. Calling UpdateTopicRuleDestination causes a new confirmation challenge to be sent to your confirmation endpoint.

Type: String

Valid Values: ENABLED | IN_PROGRESS | DISABLED | ERROR | DELETING

Required: No

**statusReason**

Additional details or reason why the topic rule destination is in the current status.

Type: String

Required: No

**vpcProperties**

Properties of the virtual private cloud (VPC) connection.

Type: VpcDestinationProperties object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TopicRuleDestinationConfiguration

Service: AWS IoT

Configuration of the topic rule destination.

## Contents

**httpUrlConfiguration**

Configuration of the HTTP URL.

Type: HttpUrlDestinationConfiguration object

Required: No

**vpcConfiguration**

Configuration of the virtual private cloud (VPC) connection.

Type: VpcDestinationConfiguration object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TopicRuleDestinationSummary

Service: AWS IoT

Information about the topic rule destination.

## Contents

**arn**

The topic rule destination ARN.

Type: String

Required: No

**createdAt**

The date and time when the topic rule destination was created.

Type: Timestamp

Required: No

**httpUrlSummary**

Information about the HTTP URL.

Type: HttpUrlDestinationSummary object

Required: No

**lastUpdatedAt**

The date and time when the topic rule destination was last updated.

Type: Timestamp

Required: No

**status**

The status of the topic rule destination. Valid values are:

IN_PROGRESS

A topic rule destination was created but has not been confirmed. You can set `status` to `IN_PROGRESS` by calling `UpdateTopicRuleDestination`. Calling

UpdateTopicRuleDestination causes a new confirmation challenge to be sent to your confirmation endpoint.

ENABLED

Confirmation was completed, and traffic to this destination is allowed. You can set status to DISABLED by calling UpdateTopicRuleDestination.

DISABLED

Confirmation was completed, and traffic to this destination is not allowed. You can set status to ENABLED by calling UpdateTopicRuleDestination.

ERROR

Confirmation could not be completed, for example if the confirmation timed out. You can call GetTopicRuleDestination for details about the error. You can set status to IN_PROGRESS by calling UpdateTopicRuleDestination. Calling UpdateTopicRuleDestination causes a new confirmation challenge to be sent to your confirmation endpoint.

Type: String

Valid Values: ENABLED | IN_PROGRESS | DISABLED | ERROR | DELETING

Required: No

**statusReason**

The reason the topic rule destination is in the current status.

Type: String

Required: No

**vpcDestinationSummary**

Information about the virtual private cloud (VPC) connection.

Type: VpcDestinationSummary object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TopicRuleListItem

Service: AWS IoT

Describes a rule.

## Contents

**createdAt**

The date and time the rule was created.

Type: Timestamp

Required: No

**ruleArn**

The rule ARN.

Type: String

Required: No

**ruleDisabled**

Specifies whether the rule is disabled.

Type: Boolean

Required: No

**ruleName**

The name of the rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_]+$`

Required: No

**topicPattern**

The pattern for the topic names that apply.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TopicRulePayload

Service: AWS IoT

Describes a rule.

## Contents

**actions**

The actions associated with the rule.

Type: Array of Action objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

**sql**

The SQL statement used to query the topic. For more information, see AWS IoT SQL Reference in the *AWS IoT Developer Guide*.

Type: String

Required: Yes

**awsIotSqlVersion**

The version of the SQL rules engine to use when evaluating the rule.

Type: String

Required: No

**description**

The description of the rule.

Type: String

Required: No

**errorAction**

The action to take when an error occurs.

Type: Action object

Required: No

**ruleDisabled**

Specifies whether the rule is disabled.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TransferData

Service: AWS IoT

Data used to transfer a certificate to an AWS account.

## Contents

**acceptDate**

The date the transfer was accepted.

Type: Timestamp

Required: No

**rejectDate**

The date the transfer was rejected.

Type: Timestamp

Required: No

**rejectReason**

The reason why the transfer was rejected.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

Required: No

**transferDate**

The date the transfer took place.

Type: Timestamp

Required: No

**transferMessage**

The transfer message.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\s\S]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# UpdateCACertificateParams

Service: AWS IoT

Parameters to define a mitigation action that changes the state of the CA certificate to inactive.

## Contents

### action

The action that you want to apply to the CA certificate. The only supported value is `DEACTIVATE`.

Type: String

Valid Values: `DEACTIVATE`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# UpdateDeviceCertificateParams

Service: AWS IoT

Parameters to define a mitigation action that changes the state of the device certificate to inactive.

## Contents

### action

The action that you want to apply to the device certificate. The only supported value is `DEACTIVATE`.

Type: String

Valid Values: `DEACTIVATE`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# UserProperty

Service: AWS IoT

A key-value pair that you define in the header. Both the key and the value are either literal strings or valid substitution templates.

## Contents

**key**

A key to be specified in `UserProperty`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: Yes

**value**

A value to be specified in `UserProperty`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ValidationError

Service: AWS IoT

Information about an error found in a behavior specification.

## Contents

**errorMessage**

The description of an error found in the behaviors.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# VersionUpdateByJobsConfig

Service: AWS IoT

Configuration to manage IoT Job's package version reporting. If configured, Jobs updates the thing's reserved named shadow with the package version information up on successful job completion.

**Note:** For each job, the destinationPackageVersions attribute has to be set with the correct data for Jobs to report to the thing shadow.

## Contents

**enabled**

Indicates whether the Job is enabled or not.

Type: Boolean

Required: No

**roleArn**

The Amazon Resource Name (ARN) of the role that grants permission to the AWS IoT jobs service to update the reserved named shadow when the job successfully completes.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ViolationEvent

Service: AWS IoT

Information about a Device Defender security profile behavior violation.

## Contents

**behavior**

The behavior that was violated.

Type: Behavior object

Required: No

**metricValue**

The value of the metric (the measurement).

Type: MetricValue object

Required: No

**securityProfileName**

The name of the security profile whose behavior was violated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**thingName**

The name of the thing responsible for the violation event.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**verificationState**

The verification state of the violation (detect alarm).

Type: String

Valid Values: `FALSE_POSITIVE | BENIGN_POSITIVE | TRUE_POSITIVE | UNKNOWN`

Required: No

**verificationStateDescription**

The description of the verification state of the violation.

Type: String

Length Constraints: Maximum length of 1000.

Pattern: `[^\p{Cntrl}]*`

Required: No

**violationEventAdditionalInfo**

The details of a violation event.

Type: ViolationEventAdditionalInfo object

Required: No

**violationEventTime**

The time the violation event occurred.

Type: Timestamp

Required: No

**violationEventType**

The type of violation event.

Type: String

Valid Values: `in-alarm | alarm-cleared | alarm-invalidated`

Required: No

**violationId**

The ID of the violation event.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ViolationEventAdditionalInfo

Service: AWS IoT

The details of a violation event.

## Contents

### confidenceLevel

The sensitivity of anomalous behavior evaluation. Can be `Low`, `Medium`, or `High`.

Type: String

Valid Values: `LOW | MEDIUM | HIGH`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ViolationEventOccurrenceRange

Service: AWS IoT

Specifies the time period of which violation events occurred between.

## Contents

**endTime**

The end date and time of a time period in which violation events occurred.

Type: Timestamp

Required: Yes

**startTime**

The start date and time of a time period in which violation events occurred.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# VpcDestinationConfiguration

Service: AWS IoT

The configuration information for a virtual private cloud (VPC) destination.

## Contents

**roleArn**

The ARN of a role that has permission to create and attach to elastic network interfaces (ENIs).

Type: String

Required: Yes

**subnetIds**

The subnet IDs of the VPC destination.

Type: Array of strings

Required: Yes

**vpcId**

The ID of the VPC.

Type: String

Required: Yes

**securityGroups**

The security groups of the VPC destination.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# VpcDestinationProperties

Service: AWS IoT

The properties of a virtual private cloud (VPC) destination.

## Contents

**roleArn**

The ARN of a role that has permission to create and attach to elastic network interfaces (ENIs).

Type: String

Required: No

**securityGroups**

The security groups of the VPC destination.

Type: Array of strings

Required: No

**subnetIds**

The subnet IDs of the VPC destination.

Type: Array of strings

Required: No

**vpcId**

The ID of the VPC.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# VpcDestinationSummary

Service: AWS IoT

The summary of a virtual private cloud (VPC) destination.

## Contents

**roleArn**

The ARN of a role that has permission to create and attach to elastic network interfaces (ENIs).

Type: String

Required: No

**securityGroups**

The security groups of the VPC destination.

Type: Array of strings

Required: No

**subnetIds**

The subnet IDs of the VPC destination.

Type: Array of strings

Required: No

**vpcId**

The ID of the VPC.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AWS IoT data

The following data types are supported by AWS IoT data:

- RetainedMessageSummary
- SubscriptionSummary

# RetainedMessageSummary

Service: AWS IoT data

Information about a single retained message.

## Contents

**lastModifiedTime**

The Epoch date and time, in milliseconds, when the retained message was stored by AWS IoT.

Type: Long

Required: No

**payloadSize**

The size of the retained message's payload in bytes.

Type: Long

Required: No

**qos**

The quality of service (QoS) level used to publish the retained message.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

**topic**

The topic name to which the retained message was published.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

## SubscriptionSummary

Service: AWS IoT data

Contains information about a subscription for an MQTT client, including the topic filter and Quality of Service (QoS) level.

### Contents

**qos**

The Quality of Service (QoS) level for the subscription. Valid values are 0 (at most once) and 1 (at least once).

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1.

Required: Yes

**topicFilter**

The topic filter pattern that the client is subscribed to. May include MQTT wildcards such as + (single-level) and # (multi-level).

Type: String

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AWS IoT jobs data

The following data types are supported by AWS IoT jobs data:

- CommandParameterValue
- JobExecution
- JobExecutionState
- JobExecutionSummary

# CommandParameterValue

Service: AWS IoT jobs data

The list of values used to describe a specific command parameter.

## Contents

**B**

An attribute of type Boolean. For example:

`"BOOL": true`

Type: Boolean

Required: No

**BIN**

An attribute of type Binary.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1.

Required: No

**D**

An attribute of type Double (Sixty-Four Bits).

Type: Double

Required: No

**I**

An attribute of type Integer (Thirty-Two Bits).

Type: Integer

Required: No

**L**

An attribute of type Long.

Type: Long

Required: No

**S**

An attribute of type String. For example:

`"S": "Hello"`

Type: String

Length Constraints: Minimum length of 1.

Required: No

**UL**

An attribute of type Unsigned Long.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[0-9]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecution

Service: AWS IoT jobs data

Contains data about a job execution.

## Contents

**approximateSecondsBeforeTimedOut**

The estimated number of seconds that remain before the job execution status will be changed to `TIMED_OUT`. The actual job execution timeout can occur up to 60 seconds later than the estimated duration.

Type: Long

Required: No

**executionNumber**

A number that identifies a particular job execution on a particular device. It can be used later in commands that return or update job execution information.

Type: Long

Required: No

**jobDocument**

The content of the job document.

Type: String

Length Constraints: Maximum length of 32768.

Required: No

**jobId**

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**lastUpdatedAt**

The time, in seconds since the epoch, when the job execution was last updated.

Type: Long

Required: No

**queuedAt**

The time, in seconds since the epoch, when the job execution was enqueued.

Type: Long

Required: No

**startedAt**

The time, in seconds since the epoch, when the job execution was started.

Type: Long

Required: No

**status**

The status of the job execution. Can be one of: "QUEUED", "IN_PROGRESS", "FAILED", "SUCCESS", "CANCELED", "TIMED_OUT", "REJECTED", or "REMOVED".

Type: String

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

Required: No

**statusDetails**

A collection of name/value pairs that describe the status of the job execution.

The maximum length of the value in the name/value pair is 1,024 characters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

**thingName**

The name of the thing that is executing the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

**versionNumber**

The version of the job execution. Job execution versions are incremented each time they are updated by a device.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionState

Service: AWS IoT jobs data

Contains data about the state of a job execution.

## Contents

**status**

The status of the job execution. Can be one of: "QUEUED", "IN_PROGRESS", "FAILED", "SUCCESS", "CANCELED", "TIMED_OUT", "REJECTED", or "REMOVED".

Type: String

Valid Values: `QUEUED | IN_PROGRESS | SUCCEEDED | FAILED | TIMED_OUT | REJECTED | REMOVED | CANCELED`

Required: No

**statusDetails**

A collection of name/value pairs that describe the status of the job execution.

The maximum length of the value in the name/value pair is 1,024 characters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[a-zA-Z0-9:_-]+`

Value Length Constraints: Minimum length of 1.

Value Pattern: `[^\p{C}]+`

Required: No

**versionNumber**

The version of the job execution. Job execution versions are incremented each time they are updated by a device.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# JobExecutionSummary

Service: AWS IoT jobs data

Contains a subset of information about a job execution.

## Contents

**executionNumber**

A number that identifies a particular job execution on a particular device.

Type: Long

Required: No

**jobId**

The unique identifier you assigned to this job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9_-]+`

Required: No

**lastUpdatedAt**

The time, in seconds since the epoch, when the job execution was last updated.

Type: Long

Required: No

**queuedAt**

The time, in seconds since the epoch, when the job execution was enqueued.

Type: Long

Required: No

**startedAt**

The time, in seconds since the epoch, when the job execution started.

Type: Long

Required: No

**versionNumber**

The version of the job execution. Job execution versions are incremented each time AWS IoT Jobs receives an update from a device.

Type: Long

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

## AWS IoT Core Device Advisor

The following data types are supported by AWS IoT Core Device Advisor:

- DeviceUnderTest
- GroupResult
- SuiteDefinitionConfiguration
- SuiteDefinitionInformation
- SuiteRunConfiguration
- SuiteRunInformation
- TestCaseRun
- TestCaseScenario
- TestResult

# DeviceUnderTest

Service: AWS IoT Core Device Advisor

Information of a test device. A thing ARN, certificate ARN or device role ARN is required.

## Contents

**certificateArn**

Lists device's certificate ARN.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**deviceRoleArn**

Lists device's role ARN.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

**thingArn**

Lists device's thing ARN.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# GroupResult

Service: AWS IoT Core Device Advisor

Show Group Result.

## Contents

**groupId**

Group result ID.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

**groupName**

Group Result Name.

Type: String

Required: No

**tests**

Tests under Group Result.

Type: Array of TestCaseRun objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SuiteDefinitionConfiguration

Service: AWS IoT Core Device Advisor

Gets the suite definition configuration.

## Contents

**devicePermissionRoleArn**

Gets the device permission ARN. This is a required parameter.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

**rootGroup**

Gets the test suite root group. This is a required parameter. For updating or creating the latest qualification suite, if `intendedForQualification` is set to true, `rootGroup` can be an empty string. If `intendedForQualification` is false, `rootGroup` cannot be an empty string. If `rootGroup` is empty, and `intendedForQualification` is set to true, all the qualification tests are included, and the configuration is default.

For a qualification suite, the minimum length is 0, and the maximum is 2048. For a non-qualification suite, the minimum length is 1, and the maximum is 2048.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: Yes

**suiteDefinitionName**

Gets the suite definition name. This is a required parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

**devices**

Gets the devices configured.

Type: Array of DeviceUnderTest objects

Array Members: Minimum number of 0 items. Maximum number of 2 items.

Required: No

**intendedForQualification**

Gets the tests intended for qualification in a suite.

Type: Boolean

Required: No

**isLongDurationTest**

Verifies if the test suite is a long duration test.

Type: Boolean

Required: No

**protocol**

Sets the MQTT protocol that is configured in the suite definition.

Type: String

Valid Values: `MqttV3_1_1 | MqttV5 | MqttV3_1_1_OverWebSocket | MqttV5_OverWebSocket`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# SuiteDefinitionInformation

Service: AWS IoT Core Device Advisor

Information about the suite definition.

## Contents

**createdAt**

Date (in Unix epoch time) when the test suite was created.

Type: Timestamp

Required: No

**defaultDevices**

Specifies the devices that are under test for the test suite.

Type: Array of DeviceUnderTest objects

Array Members: Minimum number of 0 items. Maximum number of 2 items.

Required: No

**intendedForQualification**

Specifies if the test suite is intended for qualification.

Type: Boolean

Required: No

**isLongDurationTest**

Verifies if the test suite is a long duration test.

Type: Boolean

Required: No

**protocol**

Gets the MQTT protocol that is configured in the suite definition.

Type: String

Valid Values: `MqttV3_1_1 | MqttV5 | MqttV3_1_1_OverWebSocket | MqttV5_OverWebSocket`

Required: No

**suiteDefinitionId**

Suite definition ID of the test suite.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

**suiteDefinitionName**

Suite name of the test suite.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SuiteRunConfiguration

Service: AWS IoT Core Device Advisor

Gets suite run configuration.

## Contents

**primaryDevice**

Sets the primary device for the test suite run. This requires a thing ARN or a certificate ARN.

Type: DeviceUnderTest object

Required: Yes

**parallelRun**

TRUE if multiple test suites run in parallel.

Type: Boolean

Required: No

**selectedTestList**

Sets test case list.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SuiteRunInformation

Service: AWS IoT Core Device Advisor

Information about the suite run.

Requires permission to access the SuiteRunInformation action.

## Contents

**createdAt**

Date (in Unix epoch time) when the suite run was created.

Type: Timestamp

Required: No

**endAt**

Date (in Unix epoch time) when the suite run ended.

Type: Timestamp

Required: No

**failed**

Number of test cases that failed in the suite run.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 500.

Required: No

**passed**

Number of test cases that passed in the suite run.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 500.

Required: No

**startedAt**

Date (in Unix epoch time) when the suite run was started.

Type: Timestamp

Required: No

**status**

Status of the suite run.

Type: String

Valid Values: `PASS | FAIL | CANCELED | PENDING | RUNNING | STOPPING | STOPPED | PASS_WITH_WARNINGS | ERROR`

Required: No

**suiteDefinitionId**

Suite definition ID of the suite run.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

**suiteDefinitionName**

Suite definition name of the suite run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**suiteDefinitionVersion**

Suite definition version of the suite run.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 255.

Required: No

**suiteRunId**

Suite run ID of the suite run.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TestCaseRun

Service: AWS IoT Core Device Advisor

Provides the test case run.

## Contents

**endTime**

Provides test case run end time.

Type: Timestamp

Required: No

**failure**

Provides test case run failure result.

Type: String

Required: No

**logUrl**

Provides test case run log URL.

Type: String

Required: No

**startTime**

Provides test case run start time.

Type: Timestamp

Required: No

**status**

Provides the test case run status. Status is one of the following:

- PASS: Test passed.
- FAIL: Test failed.

- PENDING: Test has not started running but is scheduled.
- RUNNING: Test is running.
- STOPPING: Test is performing cleanup steps. You will see this status only if you stop a suite run.
- STOPPED Test is stopped. You will see this status only if you stop a suite run.
- PASS_WITH_WARNINGS: Test passed with warnings.
- ERORR: Test faced an error when running due to an internal issue.

Type: String

Valid Values: PASS | FAIL | CANCELED | PENDING | RUNNING | STOPPING | STOPPED | PASS_WITH_WARNINGS | ERROR

Required: No

**testCaseDefinitionId**

Provides the test case run definition ID.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

**testCaseDefinitionName**

Provides the test case run definition name.

Type: String

Required: No

**testCaseRunId**

Provides the test case run ID.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 36.

Required: No

**testScenarios**

Provides the test scenarios for the test case run.

Type: Array of TestCaseScenario objects

Required: No

**warnings**

Provides test case run warnings.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TestCaseScenario

Service: AWS IoT Core Device Advisor

Provides test case scenario.

## Contents

### failure

Provides test case scenario failure result.

Type: String

Required: No

### status

Provides the test case scenario status. Status is one of the following:

- `PASS`: Test passed.
- `FAIL`: Test failed.
- `PENDING`: Test has not started running but is scheduled.
- `RUNNING`: Test is running.
- `STOPPING`: Test is performing cleanup steps. You will see this status only if you stop a suite run.
- `STOPPED` Test is stopped. You will see this status only if you stop a suite run.
- `PASS_WITH_WARNINGS`: Test passed with warnings.
- `ERORR`: Test faced an error when running due to an internal issue.

Type: String

Valid Values: `PASS | FAIL | CANCELED | PENDING | RUNNING | STOPPING | STOPPED | PASS_WITH_WARNINGS | ERROR`

Required: No

### systemMessage

Provides test case scenario system messages if any.

Type: String

Required: No

**testCaseScenarioId**

Provides test case scenario ID.

Type: String

Required: No

**testCaseScenarioType**

Provides test case scenario type. Type is one of the following:

- Advanced
- Basic

Type: String

Valid Values: `Advanced | Basic`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

## TestResult

Service: AWS IoT Core Device Advisor

Show each group result.

### Contents

**groups**

Show each group of test results.

Type: Array of GroupResult objects

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# AWS IoT Secure Tunneling

The following data types are supported by AWS IoT Secure Tunneling:

- ConnectionState
- DestinationConfig
- Tag
- TimeoutConfig
- Tunnel
- TunnelSummary

# ConnectionState

Service: AWS IoT Secure Tunneling

The state of a connection.

## Contents

**lastUpdatedAt**

The last time the connection status was updated.

Type: Timestamp

Required: No

**status**

The connection status of the tunnel. Valid values are `CONNECTED` and `DISCONNECTED`.

Type: String

Valid Values: `CONNECTED | DISCONNECTED`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DestinationConfig

Service: AWS IoT Secure Tunneling

The destination configuration. You can not use `DestinationConfig` with source `clientMode`.

## Contents

**services**

A list of service names that identify the target application. The AWS IoT client running on the destination device reads this value and uses it to look up a port or an IP address and a port. The AWS IoT client instantiates the local proxy, which uses this information to connect to the destination application.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: Yes

**thingName**

The name of the IoT thing to which you want to connect.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Tag

Service: AWS IoT Secure Tunneling

An arbitary key/value pair used to add searchable metadata to secure tunnel resources.

## Contents

**key**

The key of the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

**value**

The value of the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TimeoutConfig

Service: AWS IoT Secure Tunneling

Tunnel timeout configuration.

## Contents

### maxLifetimeTimeoutMinutes

The maximum amount of time (in minutes) a tunnel can remain open. If not specified, maxLifetimeTimeoutMinutes defaults to 720 minutes. Valid values are from 1 minute to 12 hours (720 minutes)

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 720.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Tunnel

Service: AWS IoT Secure Tunneling

A connection between a source computer and a destination device.

## Contents

**createdAt**

The time when the tunnel was created.

Type: Timestamp

Required: No

**description**

A description of the tunnel.

Type: String

Pattern: `[^\p{C}]{1,2048}`

Required: No

**destinationConfig**

The destination configuration that specifies the thing name of the destination device and a service name that the local proxy uses to connect to the destination application.

Type: DestinationConfig object

Required: No

**destinationConnectionState**

The connection state of the destination application.

Type: ConnectionState object

Required: No

**lastUpdatedAt**

The last time the tunnel was updated.

Type: Timestamp

Required: No

**sourceConnectionState**

The connection state of the source application.

Type: ConnectionState object

Required: No

**status**

The status of a tunnel. Valid values are: Open and Closed.

Type: String

Valid Values: `OPEN | CLOSED`

Required: No

**tags**

A list of tag metadata associated with the secure tunnel.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Required: No

**timeoutConfig**

Timeout configuration for the tunnel.

Type: TimeoutConfig object

Required: No

**tunnelArn**

The Amazon Resource Name (ARN) of a tunnel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Required: No

**tunnelId**

A unique alpha-numeric ID that identifies a tunnel.

Type: String

Pattern: `[a-zA-Z0-9_\-+=:]{1,128}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TunnelSummary

Service: AWS IoT Secure Tunneling

Information about the tunnel.

## Contents

**createdAt**

The time the tunnel was created.

Type: Timestamp

Required: No

**description**

A description of the tunnel.

Type: String

Pattern: `[^\p{C}]{1,2048}`

Required: No

**lastUpdatedAt**

The time the tunnel was last updated.

Type: Timestamp

Required: No

**status**

The status of a tunnel. Valid values are: Open and Closed.

Type: String

Valid Values: `OPEN | CLOSED`

Required: No

**tunnelArn**

The Amazon Resource Name of the tunnel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Required: No

**tunnelId**

The unique alpha-numeric identifier for the tunnel.

Type: String

Pattern: `[a-zA-Z0-9_\-+=:]{1,128}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

**X-Amz-Algorithm**

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

**X-Amz-Credential**

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

**X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

**X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional