Access Analyzer

API Reference

API Version 2019-11-01

aws

Access Analyzer: API Reference

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Welcome

AWS IAM Access Analyzer helps identify potential resource-access risks by enabling you to identify any policies that grant access to an external principal. It does this by using logic-based reasoning to analyze resource-based policies in your AWS environment. An external principal can be another AWS account, a root user, an IAM user or role, a federated user, an AWS service, or an anonymous user. This guide describes the AWS IAM Access Analyzer operations that you can call programmatically. For general information about Access Analyzer, see the AWS IAM Access Analyzer section of the IAM User Guide.

To start using Access Analyzer, you first need to create an analyzer.

This document was last published on April 6, 2020.

Actions

The following actions are supported:

- CreateAnalyzer (p. 3)
- CreateArchiveRule (p. 6)
- DeleteAnalyzer (p. 9)
- DeleteArchiveRule (p. 11)
- GetAnalyzedResource (p. 13)
- GetAnalyzer (p. 15)
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- UpdateArchiveRule (p. 41)
- UpdateFindings (p. 44)

CreateAnalyzer

Creates an analyzer for your account.

Request Syntax

```
PUT /analyzer HTTP/1.1
Content-type: application/json

{
    "analyzerName": "string",
    "archiveRules": [
        {
            "filter": {
                "string" : {
                    "contains": [ "string" ],
                    "eq": [ "string" ],
                    "exists": boolean,
                    "neq": [ "string" ]
                }
            },
            "ruleName": "string"
        }
    ],
    "clientToken": "string",
    "tags": {
        "string" : "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.

analyzerName (p. 3)

The name of the analyzer to create.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Required: Yes

archiveRules (p. 3)

Specifies the archive rules to add for the analyzer. Archive rules automatically archive findings that meet the criteria you define for the rule.

Type: Array of InlineArchiveRule (p. 59) objects

Required: No

clientToken (p. 3)

> A client token.
>
> Type: String
>
> Required: No

tags (p. 3)

> The tags to apply to the analyzer.
>
> Type: String to string map
>
> Required: No

type (p. 3)

> The type of analyzer to create. Only ACCOUNT analyzers are supported. You can create only one analyzer per account per Region.
>
> Type: String
>
> Valid Values: `ACCOUNT | ORGANIZATION`
>
> Required: Yes

Response Syntax

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

{
   "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.

arn (p. 4)

> The ARN of the analyzer that was created by the request.
>
> Type: String
>
> Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

> You do not have sufficient access to perform this action.

HTTP Status Code: 403

ConflictException

A conflict exception error.

HTTP Status Code: 409

InternalServerException

Internal server error.

HTTP Status Code: 500

ServiceQuotaExceededException

Service quote met error.

HTTP Status Code: 402

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateArchiveRule

Creates an archive rule for the specified analyzer. Archive rules automatically archive findings that meet the criteria you define when you create the rule.

Request Syntax

```
PUT /analyzer/analyzerName/archive-rule HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "filter": {
      "string" : {
         "contains": [ "string" ],
         "eq": [ "string" ],
         "exists": boolean,
         "neq": [ "string" ]
      }
   },
   "ruleName": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 6)

The name of the created analyzer.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Request Body

The request accepts the following data in JSON format.

clientToken (p. 6)

A client token.

Type: String

Required: No

filter (p. 6)

The criteria for the rule.

Type: String to Criterion (p. 54) object map

Required: Yes

ruleName (p. 6)

The name of the rule to create.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

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

For information about the errors that are common to all actions, see .

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

ConflictException

A conflict exception error.

HTTP Status Code: 409

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ServiceQuotaExceededException

Service quote met error.

HTTP Status Code: 402

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

HTTP Status Code: 400

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- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteAnalyzer

Deletes the specified analyzer. When you delete an analyzer, Access Analyzer is disabled for the account in the current or specific Region. All findings that were generated by the analyzer are deleted. You cannot undo this action.

Request Syntax

```
DELETE /analyzer/analyzerName?clientToken=clientToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 9)

> The name of the analyzer to delete.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

clientToken (p. 9)

> A client token.

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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

> You do not have sufficient access to perform this action.
>
> HTTP Status Code: 403

InternalServerException

> Internal server error.
>
> HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

HTTP Status Code: 400

See Also

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- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteArchiveRule

Deletes the specified archive rule.

Request Syntax

```
DELETE /analyzer/analyzerName/archive-rule/ruleName?clientToken=clientToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 11)

The name of the analyzer that associated with the archive rule to delete.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

clientToken (p. 11)

A client token.

ruleName (p. 11)

The name of the rule to delete.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

HTTP Status Code: 400

See Also

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- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAnalyzedResource

Retrieves information about a resource that was analyzed.

Request Syntax

```
GET /analyzed-resource?analyzerArn=analyzerArn&resourceArn=resourceArn HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerArn (p. 13)

    The ARN of the analyzer to retrieve information from.

    Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`

resourceArn (p. 13)

    The ARN of the resource to retrieve information about.

    Pattern: `arn:[^:]*:[^:]*:[^:]*:[^:]*:.*$`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "resource": {
      "actions": [ "string" ],
      "analyzedAt": number,
      "createdAt": number,
      "error": "string",
      "isPublic": boolean,
      "resourceArn": "string",
      "resourceOwnerAccount": "string",
      "resourceType": "string",
      "sharedVia": [ "string" ],
      "status": "string",
      "updatedAt": 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.

resource (p. 13)

An `AnalyedResource` object that contains information that Access Analyzer found when it analyzed the resource.

Type: AnalyzedResource (p. 48) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

HTTP Status Code: 400

See Also

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- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAnalyzer

Retrieves information about the specified analyzer.

Request Syntax

```
GET /analyzer/analyzerName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 15)

> The name of the analyzer retrieved.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "analyzer": {
      "arn": "string",
      "createdAt": number,
      "lastResourceAnalyzed": "string",
      "lastResourceAnalyzedAt": number,
      "name": "string",
      "status": "string",
      "statusReason": {
         "code": "string"
      },
      "tags": {
         "string" : "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.

analyzer (p. 15)

An `AnalyzerSummary` object that contains information about the analyzer.

Type: AnalyzerSummary (p. 51) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

HTTP Status Code: 400

See Also

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

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- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetArchiveRule

Retrieves information about an archive rule.

Request Syntax

```
GET /analyzer/analyzerName/archive-rule/ruleName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 17)

The name of the analyzer to retrieve rules from.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

ruleName (p. 17)

The name of the rule to retrieve.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "archiveRule": {
      "createdAt": number,
      "filter": {
         "string" : {
            "contains": [ "string" ],
            "eq": [ "string" ],
            "exists": boolean,
            "neq": [ "string" ]
         }
      },
      "ruleName": "string",
      "updatedAt": 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.

archiveRule (p. 17)

Contains information about an archive rule.

Type: ArchiveRuleSummary (p. 53) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetFinding

Retrieves information about the specified finding.

Request Syntax

```
GET /finding/id?analyzerArn=analyzerArn HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerArn (p. 19)

The ARN of the analyzer that generated the finding.

Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`

id (p. 19)

The ID of the finding to retrieve.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "finding": {
      "action": [ "string" ],
      "analyzedAt": number,
      "condition": {
         "string" : "string"
      },
      "createdAt": number,
      "error": "string",
      "id": "string",
      "isPublic": boolean,
      "principal": {
         "string" : "string"
      },
      "resource": "string",
      "resourceOwnerAccount": "string",
      "resourceType": "string",
      "status": "string",
      "updatedAt": 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 (p. 19)

A `finding` object that contains finding details.

Type: Finding (p. 55) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListAnalyzedResources

Retrieves a list of resources of the specified type that have been analyzed by the specified analyzer..

Request Syntax

```
POST /analyzed-resource HTTP/1.1
Content-type: application/json

{
    "analyzerArn": "string",
    "maxResults": number,
    "nextToken": "string",
    "resourceType": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

analyzerArn (p. 21)

The ARN of the analyzer to retrieve a list of analyzed resources from.

Type: String

Pattern: ^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$

Required: Yes

maxResults (p. 21)

The maximum number of results to return in the response.

Type: Integer

Required: No

nextToken (p. 21)

A token used for pagination of results returned.

Type: String

Required: No

resourceType (p. 21)

The type of resource.

Type: String

Valid Values: AWS::IAM::Role | AWS::KMS::Key | AWS::Lambda::Function | AWS::Lambda::LayerVersion | AWS::S3::Bucket | AWS::SQS::Queue

Required: No

Response Syntax

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

{
   "analyzedResources": [
      {
         "resourceArn": "string",
         "resourceOwnerAccount": "string",
         "resourceType": "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.

analyzedResources (p. 22)

A list of resources that were analyzed.

Type: Array of AnalyzedResourceSummary (p. 50) objects

nextToken (p. 22)

A token used for pagination of results returned.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
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- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListAnalyzers

Retrieves a list of analyzers.

Request Syntax

```
GET /analyzer?maxResults=maxResults&nextToken=nextToken&type=type HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

maxResults (p. 24)

>   The maximum number of results to return in the response.

nextToken (p. 24)

>   A token used for pagination of results returned.

type (p. 24)

>   The type of analyzer.
>
>   Valid Values: `ACCOUNT | ORGANIZATION`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "analyzers": [
      {
         "arn": "string",
         "createdAt": number,
         "lastResourceAnalyzed": "string",
         "lastResourceAnalyzedAt": number,
         "name": "string",
         "status": "string",
         "statusReason": {
            "code": "string"
         },
         "tags": {
            "string" : "string"
         },
         "type": "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.

analyzers (p. 24)

> The analyzers retrieved.

> Type: Array of AnalyzerSummary (p. 51) objects

nextToken (p. 24)

> A token used for pagination of results returned.

> Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

> You do not have sufficient access to perform this action.

> HTTP Status Code: 403

InternalServerException

> Internal server error.

> HTTP Status Code: 500

ThrottlingException

> Throttling limit exceeded error.

> HTTP Status Code: 429

ValidationException

> Validation exception error.

> HTTP Status Code: 400

See Also

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- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python

- [AWS SDK for Ruby V3](#)

ListArchiveRules

Retrieves a list of archive rules created for the specified analyzer.

Request Syntax

```
GET /analyzer/analyzerName/archive-rule?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 27)

> The name of the analyzer to retrieve rules from.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

maxResults (p. 27)

> The maximum number of results to return in the request.

nextToken (p. 27)

> A token used for pagination of results returned.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "archiveRules": [
      {
         "createdAt": number,
         "filter": {
            "string" : {
               "contains": [ "string" ],
               "eq": [ "string" ],
               "exists": boolean,
               "neq": [ "string" ]
            }
         },
         "ruleName": "string",
         "updatedAt": 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.

archiveRules (p. 27)

A list of archive rules created for the specified analyzer.

Type: Array of ArchiveRuleSummary (p. 53) objects

nextToken (p. 27)

A token used for pagination of results returned.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

HTTP Status Code: 400

See Also

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- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

ListFindings

Retrieves a list of findings generated by the specified analyzer.

Request Syntax

```
POST /finding HTTP/1.1
Content-type: application/json

{
   "analyzerArn": "string",
   "filter": {
      "string" : {
         "contains": [ "string" ],
         "eq": [ "string" ],
         "exists": boolean,
         "neq": [ "string" ]
      }
   },
   "maxResults": number,
   "nextToken": "string",
   "sort": {
      "attributeName": "string",
      "orderBy": "string"
   }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

analyzerArn (p. 30)

> The ARN of the analyzer to retrieve findings from.
>
> Type: String
>
> Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`
>
> Required: Yes

filter (p. 30)

> A filter to match for the findings to return.
>
> Type: String to Criterion (p. 54) object map
>
> Required: No

maxResults (p. 30)

> The maximum number of results to return in the response.
>
> Type: Integer
>
> Required: No

nextToken (p. 30)

> A token used for pagination of results returned.

> Type: String

> Required: No

sort (p. 30)

> The sort order for the findings returned.

> Type: SortCriteria (p. 60) object

> Required: No

Response Syntax

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

{
   "findings": [
      {
         "action": [ "string" ],
         "analyzedAt": number,
         "condition": {
            "string" : "string"
         },
         "createdAt": number,
         "error": "string",
         "id": "string",
         "isPublic": boolean,
         "principal": {
            "string" : "string"
         },
         "resource": "string",
         "resourceOwnerAccount": "string",
         "resourceType": "string",
         "status": "string",
         "updatedAt": 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 (p. 31)

> A list of findings retrieved from the analyzer that match the filter criteria specified, if any.

> Type: Array of FindingSummary (p. 57) objects

nextToken (p. 31)

> A token used for pagination of results returned.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Retrieves a list of tags applied to the specified resource.

Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

resourceArn (p. 33)

> The ARN of the resource to retrieve tags from.

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 (p. 33)

> The tags that are applied to the specified resource.
>
> Type: String to string map

Errors

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

> You do not have sufficient access to perform this action.
>
> HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartResourceScan

Immediately starts a scan of the policies applied to the specified resource.

Request Syntax

```
POST /resource/scan HTTP/1.1
Content-type: application/json

{
    "analyzerArn": "string",
    "resourceArn": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

analyzerArn (p. 35)

The ARN of the analyzer to use to scan the policies applied to the specified resource.

Type: String

Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`

Required: Yes

resourceArn (p. 35)

The ARN of the resource to scan.

Type: String

Pattern: `arn:[^:]*:[^:]*:[^:]*:[^:]*:.*$`

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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Adds a tag to the specified resource.

Request Syntax

```
POST /tags/resourceArn HTTP/1.1
Content-type: application/json

{
    "tags": {
        "string" : "string"
    }
}
```

URI Request Parameters

The request requires the following URI parameters.

resourceArn (p. 37)

The ARN of the resource to add the tag to.

Request Body

The request accepts the following data in JSON format.

tags (p. 37)

The tags to add to the resource.

Type: String to string map

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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Removes a tag from the specified resource.

Request Syntax

```
DELETE /tags/resourceArn?tagKeys=tagKeys HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

resourceArn (p. 39)

    The ARN of the resource to remove the tag from.

tagKeys (p. 39)

    The key for the tag to add.

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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

    You do not have sufficient access to perform this action.

    HTTP Status Code: 403

InternalServerException

    Internal server error.

    HTTP Status Code: 500

ResourceNotFoundException

    The specified resource could not be found.

    HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateArchiveRule

Updates the criteria and values for the specified archive rule.

Request Syntax

```
PUT /analyzer/analyzerName/archive-rule/ruleName HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "filter": {
      "string" : {
         "contains": [ "string" ],
         "eq": [ "string" ],
         "exists": boolean,
         "neq": [ "string" ]
      }
   }
}
```

URI Request Parameters

The request requires the following URI parameters.

analyzerName (p. 41)

> The name of the analyzer to update the archive rules for.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

ruleName (p. 41)

> The name of the rule to update.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Request Body

The request accepts the following data in JSON format.

clientToken (p. 41)

> A client token.
>
> Type: String
>
> Required: No

filter (p. 41)

> A filter to match for the rules to update. Only rules that match the filter are updated.
>
> Type: String to Criterion (p. 54) object map

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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python

- [AWS SDK for Ruby V3](#)

UpdateFindings

Updates the status for the specified findings.

Request Syntax

```
PUT /finding HTTP/1.1
Content-type: application/json

{
    "analyzerArn": "string",
    "clientToken": "string",
    "ids": [ "string" ],
    "resourceArn": "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.

analyzerArn (p. 44)

> The ARN of the analyzer that generated the findings to update.
>
> Type: String
>
> Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`
>
> Required: Yes

clientToken (p. 44)

> A client token.
>
> Type: String
>
> Required: No

ids (p. 44)

> The IDs of the findings to update.
>
> Type: Array of strings
>
> Required: No

resourceArn (p. 44)

> The ARN of the resource identified in the finding.
>
> Type: String
>
> Pattern: `arn:[^:]*:[^:]*:[^:]*:[^:]*:.*$`
>
> Required: No

status (p. 44)

The state represents the action to take to update the finding Status. Use `ARCHIVE` to change an Active finding to an Archived finding. Use `ACTIVE` to change an Archived finding to an Active finding.

Type: String

Valid Values: `ACTIVE | ARCHIVED`

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

For information about the errors that are common to all actions, see Common Errors (p. 65).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

Internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource could not be found.

HTTP Status Code: 404

ThrottlingException

Throttling limit exceeded error.

HTTP Status Code: 429

ValidationException

Validation exception error.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Access Analyzer API contains several data types that various actions use. This section describes each data type in detail.

Note
The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

AnalyzedResource

Contains details about the analyzed resource.

Contents

actions

The actions that an external principal is granted permission to use by the policy that generated the finding.

Type: Array of strings

Required: No

analyzedAt

The time at which the resource was analyzed.

Type: Timestamp

Required: Yes

createdAt

The time at which the finding was created.

Type: Timestamp

Required: Yes

error

An error message.

Type: String

Required: No

isPublic

Indicates whether the policy that generated the finding grants public access to the resource.

Type: Boolean

Required: Yes

resourceArn

The ARN of the resource that was analyzed.

Type: String

Pattern: `arn:[^:]*:[^:]*:[^:]*:[^:]*:.*$`

Required: Yes

resourceOwnerAccount

The AWS account ID that owns the resource.

Type: String

Required: Yes

resourceType

The type of the resource that was analyzed.

Type: String

Valid Values: `AWS::IAM::Role | AWS::KMS::Key | AWS::Lambda::Function | AWS::Lambda::LayerVersion | AWS::S3::Bucket | AWS::SQS::Queue`

Required: Yes

sharedVia

Indicates how the access that generated the finding is granted.

Type: Array of strings

Required: No

status

The current status of the finding generated from the analyzed resource.

Type: String

Valid Values: `ACTIVE | ARCHIVED | RESOLVED`

Required: No

updatedAt

The time at which the finding was updated.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

AnalyzedResourceSummary

Contains the ARN of the analyzed resource.

Contents

resourceArn

The ARN of the analyzed resource.

Type: String

Pattern: `arn:[^:]*:[^:]*:[^:]*:[^:]*:.*$`

Required: Yes

resourceOwnerAccount

The AWS account ID that owns the resource.

Type: String

Required: Yes

resourceType

The type of resource that was analyzed.

Type: String

Valid Values: `AWS::IAM::Role | AWS::KMS::Key | AWS::Lambda::Function | AWS::Lambda::LayerVersion | AWS::S3::Bucket | AWS::SQS::Queue`

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

AnalyzerSummary

Contains information about the analyzer.

Contents

arn

The ARN of the analyzer.

Type: String

Pattern: `^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:analyzer/.{1,255}$`

Required: Yes

createdAt

A timestamp for the time at which the analyzer was created.

Type: Timestamp

Required: Yes

lastResourceAnalyzed

The resource that was most recently analyzed by the analyzer.

Type: String

Required: No

lastResourceAnalyzedAt

The time at which the most recently analyzed resource was analyzed.

Type: Timestamp

Required: No

name

The name of the analyzer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Required: Yes

status

The status of the analyzer. An `Active` analyzer successfully monitors supported resources and generates new findings. The analyzer is `Disabled` when a user action, such as removing trusted access for IAM Access Analyzer from AWS Organizations, causes the analyzer to stop generating new findings. The status is `Creating` when the analyzer creation is in progress and `Failed` when the analyzer creation has failed.

Type: String

Valid Values: `ACTIVE | CREATING | DISABLED | FAILED`

Required: Yes

statusReason

The `statusReason` provides more details about the current status of the analyzer. For example, if the creation for the analyzer fails, a `Failed` status is displayed. For an analyzer with organization as the type, this failure can be due to an issue with creating the service-linked roles required in the member accounts of the AWS organization.

Type: StatusReason (p. 61) object

Required: No

tags

The tags added to the analyzer.

Type: String to string map

Required: No

type

The type of analyzer, which corresponds to the zone of trust chosen for the analyzer.

Type: String

Valid Values: `ACCOUNT | ORGANIZATION`

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

ArchiveRuleSummary

Contains information about an archive rule.

Contents

createdAt

The time at which the archive rule was created.

Type: Timestamp

Required: Yes

filter

A filter used to define the archive rule.

Type: String to Criterion (p. 54) object map

Required: Yes

ruleName

The name of the archive rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][A-Za-z0-9_.-]*$`

Required: Yes

updatedAt

The time at which the archive rule was last updated.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Criterion

The criteria to use in the filter that defines the archive rule.

Contents

contains

A "contains" operator to match for the filter used to create the rule.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

eq

An "equals" operator to match for the filter used to create the rule.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

exists

An "exists" operator to match for the filter used to create the rule.

Type: Boolean

Required: No

neq

A "not equals" operator to match for the filter used to create the rule.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

Finding

Contains information about a finding.

Contents

action

The action in the analyzed policy statement that an external principal has permission to use.

Type: Array of strings

Required: No

analyzedAt

The time at which the resource was analyzed.

Type: Timestamp

Required: Yes

condition

The condition in the analyzed policy statement that resulted in a finding.

Type: String to string map

Required: Yes

createdAt

The time at which the finding was generated.

Type: Timestamp

Required: Yes

error

An error.

Type: String

Required: No

id

The ID of the finding.

Type: String

Required: Yes

isPublic

Indicates whether the policy that generated the finding allows public access to the resource.

Type: Boolean

Required: No

principal

The external principal that access to a resource within the zone of trust.

Type: String to string map

Required: No

resource

The resource that an external principal has access to.

Type: String

Required: No

resourceOwnerAccount

The AWS account ID that owns the resource.

Type: String

Required: Yes

resourceType

The type of the resource reported in the finding.

Type: String

Valid Values: `AWS::IAM::Role | AWS::KMS::Key | AWS::Lambda::Function | AWS::Lambda::LayerVersion | AWS::S3::Bucket | AWS::SQS::Queue`

Required: Yes

status

The current status of the finding.

Type: String

Valid Values: `ACTIVE | ARCHIVED | RESOLVED`

Required: Yes

updatedAt

The time at which the finding was updated.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

FindingSummary

Contains information about a finding.

Contents

action

The action in the analyzed policy statement that an external principal has permission to use.

Type: Array of strings

Required: No

analyzedAt

The time at which the resource-based policy that generated the finding was analyzed.

Type: Timestamp

Required: Yes

condition

The condition in the analyzed policy statement that resulted in a finding.

Type: String to string map

Required: Yes

createdAt

The time at which the finding was created.

Type: Timestamp

Required: Yes

error

The error that resulted in an Error finding.

Type: String

Required: No

id

The ID of the finding.

Type: String

Required: Yes

isPublic

Indicates whether the finding reports a resource that has a policy that allows public access.

Type: Boolean

Required: No

principal

The external principal that has access to a resource within the zone of trust.

Type: String to string map

Required: No

resource

The resource that the external principal has access to.

Type: String

Required: No

resourceOwnerAccount

The AWS account ID that owns the resource.

Type: String

Required: Yes

resourceType

The type of the resource that the external principal has access to.

Type: String

Valid Values: `AWS::IAM::Role | AWS::KMS::Key | AWS::Lambda::Function | AWS::Lambda::LayerVersion | AWS::S3::Bucket | AWS::SQS::Queue`

Required: Yes

status

The status of the finding.

Type: String

Valid Values: `ACTIVE | ARCHIVED | RESOLVED`

Required: Yes

updatedAt

The time at which the finding was most recently updated.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

InlineArchiveRule

An criterion statement in an archive rule. Each archive rule may have multiple criteria.

Contents

filter

The condition and values for a criterion.

Type: String to Criterion (p. 54) object map

Required: Yes

ruleName

The name of the rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^[A-Za-z][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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

SortCriteria

The criteria used to sort.

Contents

attributeName

The name of the attribute to sort on.

Type: String

Required: No

orderBy

The sort order, ascending or descending.

Type: String

Valid Values: `ASC | DESC`

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

StatusReason

Provides more details about the current status of the analyzer. For example, if the creation for the analyzer fails, a `Failed` status is displayed. For an analyzer with organization as the type, this failure can be due to an issue with creating the service-linked roles required in the member accounts of the AWS organization.

Contents

code

The reason code for the current status of the analyzer.

Type: String

Valid Values: `AWS_SERVICE_ACCESS_DISABLED` |
`DELEGATED_ADMINISTRATOR_DEREGISTERED` | `ORGANIZATION_DELETED` |
`SERVICE_LINKED_ROLE_CREATION_FAILED`

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3

ValidationExceptionField

Contains information about a validation exception.

Contents

message

A message about the validation exception.

Type: String

Required: Yes

name

The name of the validation exception.

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 Go
- AWS SDK for Java
- 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 Signature Version 4 Signing Process in the *Amazon Web Services General Reference*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

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 Task 2: Create a String to Sign for Signature Version 4 in the *Amazon Web Services General Reference*.

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 Handling Dates in Signature Version 4 in the *Amazon Web Services General Reference*.

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 Security Token Service, go to AWS Services That Work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 Task 1: Create a Canonical Request For Signature Version 4 in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400