Resource Groups Tagging API

API Reference

aws

Resource Groups Tagging API: API Reference

Table of Contents

AWS Resource Groups Tagging API Reference

This guide describes the API operations for AWS Resource Groups Tagging.

A tag is a label that you assign to an AWS resource. A tag consists of a key and a value, both of which you define. For example, if you have two Amazon EC2 instances, you might assign both a tag key of "Stack." But the value of "Stack" might be "Testing" for one and "Production" for the other.

> **Important**
> Do not store personally identifiable information (PII) or other confidential or sensitive information in tags. We use tags to provide you with billing and administration services. Tags are not intended to be used for private or sensitive data.

Tagging can help you organize your resources and enables you to simplify resource management, access management and cost allocation.

For information about tagging your AWS resources, including strategies and techniques, see Tagging AWS resources in the *Amazon Web Services General Reference*.

You can use the Resource Groups Tagging API operations to complete the following tasks:

- Tag and untag supported resources located in the specified Region for the AWS account.
- Use tag-based filters to search for resources located in the specified Region for the AWS account.
- List all existing tag keys in the specified Region for the AWS account.
- List all existing values for the specified key in the specified Region for the AWS account.

To use Resource Groups Tagging API operations, you must add the following permissions to your IAM policy:

- `tag:GetResources`
- `tag:TagResources`
- `tag:UntagResources`
- `tag:GetTagKeys`
- `tag:GetTagValues`

You'll also need permissions to access the resources of individual services so that you can tag and untag those resources.

For more information on IAM policies, see Managing IAM Policies in the *IAM User Guide*.

Services that support the Resource Groups Tagging API

You can use the Resource Groups Tagging API to tag resources for the following AWS services.

> **Note**
> This list includes only those AWS services that work with the Resource Groups Tagging API.
> If an AWS service is not listed below, you might still be able to tag that service's resources by using the service's native tagging operations instead of using the Resource Groups Tagging API operations. See the documentation for an individual service for information about that service's native tagging operations.
> This lets you tag resources by using the AWS CLI version of the service's operation. For example, you could tag an IAM user by using a command similar to the following sample:

```
$ aws iam tag-user --user-name kristy --tags Key=CostCenter,Value=1234
```

For a list of the AWS services that work with Tag Editor, see Supported Resources in the *AWS Resource Groups User Guide*.

- Alexa for Business
- Amazon API Gateway
- Amazon AppFlow
- Amazon AppStream
- AWS AppSync
- AWS App Mesh
- Amazon Athena
- AWS Audit Manager
- Amazon Aurora
- Auto Scaling
- AWS Backup
- AWS Batch
- Amazon Braket
- AWS Certificate Manager
- AWS Certificate Manager Private Certificate Authority
- Amazon Cloud Directory
- AWS Cloud Map
- AWS CloudFormation
- Amazon CloudFront
- AWS CloudHSM
- AWS CloudTrail
- Amazon CloudWatch (alarms only)
- Amazon CloudWatch Events
- Amazon CloudWatch Logs
- Amazon CloudWatch Synthetics
- AWS CodeArtifact

- AWS CodeBuild
- AWS CodeCommit
- Amazon CodeGuru Profiler
- Amazon CodeGuru Reviewer
- AWS CodePipeline
- AWS CodeStar
- AWS CodeStar connections
- Amazon Cognito Identity
- Amazon Cognito user pools
- Amazon Comprehend
- AWS Config
- Amazon Connect
- AWS Data Exchange
- AWS Data Pipeline
- AWS Database Migration Service
- AWS DataSync
- AWS Device Farm
- AWS Direct Connect
- AWS Directory Service
- Amazon DynamoDB
- Amazon Elastic Block Store (Amazon EBS)
- Amazon Elastic Compute Cloud (Amazon EC2)
- EC2 Image Builder
- Amazon Elastic Container Registry (Amazon ECR)
- Amazon Elastic Container Service (Amazon ECS)
- Amazon Elastic Kubernetes Service (Amazon EKS)
- AWS Elastic Beanstalk
- Amazon Elastic File System (Amazon EFS)
- Elastic Load Balancing
- Amazon Elastic Inference
- Amazon ElastiCache
- Amazon OpenSearch Service
- AWS Elemental MediaLive
- AWS Elemental MediaPackage
- AWS Elemental MediaPackage VoD
- AWS Elemental MediaTailor
- Amazon EMR
- Amazon EMR on EKS (EMR containers)
- Amazon EventBridge Schema
- AWS Firewall Manager
- Amazon Forecast
- Amazon Fraud Detector
- Amazon FSx
- Amazon GameLift
- Amazon S3 Glacier
- AWS Global Accelerator

- AWS Ground Station
- AWS Glue
- Amazon GuardDuty
- AWS Identity and Access Management (IAM) – at this time, only the following IAM resources can be tagged using the Resource Groups Tagging API:
  - instance-profile
  - mfa
  - oidc-provider
  - policy
  - saml-provider
  - server-certificate
- Amazon Inspector
- Amazon Interactive Video Service
- AWS IoT Analytics
- AWS IoT Core
- AWS IoT Device Defender
- AWS IoT Device Management
- AWS IoT Events
- AWS IoT Greengrass
- AWS IoT 1-Click – at this time, only the following AWS IoT 1-Click resources can be tagged using the Resource Groups Tagging API:
  - projects
  - devices
- AWS IoT SiteWise IoT Sitewise
- AWS IoT Things Graph
- AWS IoT Wireless
- Amazon Kendra
- AWS Key Management Service (AWS KMS)
- Amazon Kinesis
- Amazon Kinesis Data Analytics
- Amazon Kinesis Data Firehose
- AWS Lambda
- Amazon Lex
- AWS License Manager
- Amazon Lightsail
- Amazon Macie
- Amazon Machine Learning
- Amazon Managed Blockchain
- Amazon MQ
- Amazon Managed Streaming for Apache Kafka (Amazon MSK)
- Amazon Neptune
- AWS Network Manager
- AWS OpsWorks
- AWS OpsWorks CM
- AWS Organizations
- AWS Outposts

- Amazon Pinpoint
- Amazon Quantum Ledger Database (Amazon QLDB)
- Amazon Relational Database Service (Amazon RDS)
- Amazon Redshift
- AWS Resource Access Manager
- AWS Resource Groups
- AWS RoboMaker
- Amazon Route 53
- Amazon Route 53 Resolver
- Amazon Simple Storage Service (Amazon S3) (buckets only)
- Amazon SageMaker
- Savings Plans
- AWS Secrets Manager
- AWS Security Hub
- AWS Service Catalog
- Service Quotas
- Amazon Simple Email Service (Amazon SES)
- Amazon Simple Notification Service (Amazon SNS)
- Amazon Simple Queue Service (Amazon SQS)
- Amazon Simple Workflow Service
- AWS Step Functions
- AWS Storage Gateway
- AWS Systems Manager
- AWS Transfer for FTP
- Amazon Virtual Private Cloud (Amazon VPC)
- AWS WAF
- AWS WAF Regional
- Amazon WorkLink
- Amazon WorkSpaces
- AWS X-Ray

Actions

The following actions are supported:

DescribeReportCreation

Describes the status of the `StartReportCreation` operation.

You can call this operation only from the organization's management account and from the us-east-1 Region.

Response Syntax

```
{
    "ErrorMessage": "string",
    "S3Location": "string",
    "Status": "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.

ErrorMessage (p. 7)

Details of the common errors that all operations return.

Type: String

S3Location (p. 7)

The path to the Amazon S3 bucket where the report was stored on creation.

Type: String

Status (p. 7)

Reports the status of the operation.

The operation status can be one of the following:

- `RUNNING` - Report creation is in progress.
- `SUCCEEDED` - Report creation is complete. You can open the report from the Amazon S3 bucket that you specified when you ran `StartReportCreation`.
- `FAILED` - Report creation timed out or the Amazon S3 bucket is not accessible.
- `NO REPORT` - No report was generated in the last 90 days.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

ConstraintViolationException

The request was denied because performing this operation violates a constraint.

Some of the reasons in the following list might not apply to this specific operation.

- You must meet the prerequisites for using tag policies. For information, see Prerequisites and Permissions for Using Tag Policies in the *AWS Organizations User Guide.*

- You must enable the tag policies service principal (`tagpolicies.tag.amazonaws.com`) to integrate with AWS Organizations For information, see EnableAWSServiceAccess.
- You must have a tag policy attached to the organization root, an OU, or an account.

HTTP Status Code: 400

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of DescribeReportCreation.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Length: 20
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.DescribeReportCreation
X-Amz-Date: 20191201T214524Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization:  AUTHPARAMS

{}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestID: d3cf21f0-26db-11e7-a532-75e05382c8b1
Content-Type: application/x-amz-json-1.1
Date: Sun, 1 Dec 2019 21:45:25 GMT

{
    "ErrorMessage":null,
    "S3Location":"s3://awsexamplebucket/AwsTagPolicies/o-exampleorgid/2019-12-01-
T21:45:24Z/report.csv",
    "Status":"SUCCEEDED"
}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetComplianceSummary

Returns a table that shows counts of resources that are noncompliant with their tag policies.

For more information on tag policies, see Tag Policies in the *AWS Organizations User Guide.*

You can call this operation only from the organization's management account and from the us-east-1 Region.

This operation supports pagination, where the response can be sent in multiple pages. You should check the `PaginationToken` response parameter to determine if there are additional results available to return. Repeat the query, passing the `PaginationToken` response parameter value as an input to the next request until you recieve a `null` value. A null value for `PaginationToken` indicates that there are no more results waiting to be returned.

Request Syntax

```
{
   "GroupBy": [ "string" ],
   "MaxResults": number,
   "PaginationToken": "string",
   "RegionFilters": [ "string" ],
   "ResourceTypeFilters": [ "string" ],
   "TagKeyFilters": [ "string" ],
   "TargetIdFilters": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

GroupBy (p. 10)

Specifies a list of attributes to group the counts of noncompliant resources by. If supplied, the counts are sorted by those attributes.

Type: Array of strings

Valid Values: `TARGET_ID | REGION | RESOURCE_TYPE`

Required: No

MaxResults (p. 10)

Specifies the maximum number of results to be returned in each page. A query can return fewer than this maximum, even if there are more results still to return. You should always check the `PaginationToken` response value to see if there are more results. You can specify a minimum of 1 and a maximum value of 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

PaginationToken (p. 10)

Specifies a `PaginationToken` response value from a previous request to indicate that you want the next page of results. Leave this parameter empty in your initial request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

RegionFilters (p. 10)

Specifies a list of AWS Regions to limit the output to. If you use this parameter, the count of returned noncompliant resources includes only resources in the specified Regions.

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.

Pattern: `[\s\S]*`

Required: No

ResourceTypeFilters (p. 10)

Specifies that you want the response to include information for only resources of the specified types. The format of each resource type is `service[:resourceType]`. For example, specifying a resource type of `ec2` returns all Amazon EC2 resources (which includes EC2 instances). Specifying a resource type of `ec2:instance` returns only EC2 instances.

The string for each service name and resource type is the same as that embedded in a resource's Amazon Resource Name (ARN). Consult the *AWS General Reference* for the following:

- For a list of service name strings, see AWS Service Namespaces.
- For resource type strings, see Example ARNs.
- For more information about ARNs, see Amazon Resource Names (ARNs) and AWS Service Namespaces.

You can specify multiple resource types by using a comma separated array. The array can include up to 100 items. Note that the length constraint requirement applies to each resource type filter.

Type: Array of strings

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

Pattern: `[\s\S]*`

Required: No

TagKeyFilters (p. 10)

Specifies that you want the response to include information for only resources that have tags with the specified tag keys. If you use this parameter, the count of returned noncompliant resources includes only resources that have the specified tag keys.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

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

Required: No

TargetIdFilters (p. 10)

Specifies target identifiers (usually, specific account IDs) to limit the output by. If you use this parameter, the count of returned noncompliant resources includes only resources with the specified target IDs.

Type: Array of strings

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

Length Constraints: Minimum length of 6. Maximum length of 68.

Pattern: `[a-zA-Z0-9-]*`

Required: No

Response Syntax

```
{
    "PaginationToken": "string",
    "SummaryList": [
        {
            "LastUpdated": "string",
            "NonCompliantResources": number,
            "Region": "string",
            "ResourceType": "string",
            "TargetId": "string",
            "TargetIdType": "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.

PaginationToken (p. 12)

A string that indicates that there is more data available than this response contains. To receive the next part of the response, specify this response value as the `PaginationToken` value in the request for the next page.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

SummaryList (p. 12)

A table that shows counts of noncompliant resources.

Type: Array of Summary (p. 46) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

ConstraintViolationException

The request was denied because performing this operation violates a constraint.

Some of the reasons in the following list might not apply to this specific operation.

- You must meet the prerequisites for using tag policies. For information, see Prerequisites and Permissions for Using Tag Policies in the *AWS Organizations User Guide.*
- You must enable the tag policies service principal (`tagpolicies.tag.amazonaws.com`) to integrate with AWS Organizations For information, see EnableAWSServiceAccess.
- You must have a tag policy attached to the organization root, an OU, or an account.

HTTP Status Code: 400

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of GetComplianceSummary.

Sample Request

```
HTTP/1.1
Host: tagging.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Length: 663
```

```
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.GetComplianceSummary
X-Amz-Date: 20191201T214524Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization:  AUTHPARAMS
{
    "GroupBy": [
        "TARGET_ID",
        "REGION",
        "RESOURCE_TYPE"
    ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestID: d3cf21f0-26db-11e7-a532-75e05382c8b1
Content-Type: application/x-amz-json-1.1
Date: Sun, 1 Dec 2019 21:45:25 GMT

{
    "SummaryList": [
        {
            "LastUpdated":"2019-10-28T21:53:16Z",
            "NonCompliantResources":1,
            "Region":"us-east-1",
            "ResourceType":"ec2:instance",
            "TargetId":"333333333333",
            "TargetIdType":"ACCOUNT"
        },
        {
            "LastUpdated":"2019-10-28T21:53:17Z",
            "NonCompliantResources":0,
            "Region":"us-east-1",
            "ResourceType":"ec2:snapshot",
            "TargetId":"222222222222",
            "TargetIdType":"ACCOUNT"
        },
        {
            "LastUpdated":"2019-10-28T21:53:16Z",
            "NonCompliantResources":1,
            "Region":"us-east-1",
            "ResourceType":"ec2:volume",
            "TargetId":"111111111111",
            "TargetIdType":"ACCOUNT"
        }
    ]
}
```

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 V2

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

GetResources

Returns all the tagged or previously tagged resources that are located in the specified AWS Region for the account.

Depending on what information you want returned, you can also specify the following:

- *Filters* that specify what tags and resource types you want returned. The response includes all tags that are associated with the requested resources.
- Information about compliance with the account's effective tag policy. For more information on tag policies, see Tag Policies in the *AWS Organizations User Guide.*

This operation supports pagination, where the response can be sent in multiple pages. You should check the `PaginationToken` response parameter to determine if there are additional results available to return. Repeat the query, passing the `PaginationToken` response parameter value as an input to the next request until you recieve a `null` value. A null value for `PaginationToken` indicates that there are no more results waiting to be returned.

Request Syntax

```
{
   "ExcludeCompliantResources": boolean,
   "IncludeComplianceDetails": boolean,
   "PaginationToken": "string",
   "ResourceARNList": [ "string" ],
   "ResourcesPerPage": number,
   "ResourceTypeFilters": [ "string" ],
   "TagFilters": [
      {
         "Key": "string",
         "Values": [ "string" ]
      }
   ],
   "TagsPerPage": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

ExcludeCompliantResources (p. 16)

Specifies whether to exclude resources that are compliant with the tag policy. Set this to `true` if you are interested in retrieving information on noncompliant resources only.

You can use this parameter only if the `IncludeComplianceDetails` parameter is also set to `true`.

Type: Boolean

Required: No

IncludeComplianceDetails (p. 16)

Specifies whether to include details regarding the compliance with the effective tag policy. Set this to `true` to determine whether resources are compliant with the tag policy and to get details.

Type: Boolean

Required: No

PaginationToken (p. 16)

Specifies a `PaginationToken` response value from a previous request to indicate that you want the next page of results. Leave this parameter empty in your initial request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

ResourceARNList (p. 16)

Specifies a list of ARNs of resources for which you want to retrieve tag data. You can't specify both this parameter and any of the pagination parameters (`ResourcesPerPage`, `TagsPerPage`, `PaginationToken`) in the same request. If you specify both, you get an `Invalid Parameter` exception.

If a resource specified by this parameter doesn't exist, it doesn't generate an error; it simply isn't included in the response.

An ARN (Amazon Resource Name) uniquely identifies a resource. For more information, see Amazon Resource Names (ARNs) and AWS Service Namespaces in the *AWS General Reference*.

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 1011.

Pattern: `[\s\S]*`

Required: No

ResourcesPerPage (p. 16)

Specifies the maximum number of results to be returned in each page. A query can return fewer than this maximum, even if there are more results still to return. You should always check the `PaginationToken` response value to see if there are more results. You can specify a minimum of 1 and a maximum value of 100.

Type: Integer

Required: No

ResourceTypeFilters (p. 16)

Specifies the resource types that you want included in the response. The format of each resource type is `service[:resourceType]`. For example, specifying a resource type of `ec2` returns all Amazon EC2 resources (which includes EC2 instances). Specifying a resource type of `ec2:instance` returns only EC2 instances.

The string for each service name and resource type is the same as that embedded in a resource's Amazon Resource Name (ARN). Consult the *AWS General Reference* for the following:

For more information about ARNs, see Amazon Resource Names (ARNs) and AWS Service Namespaces.

You can specify multiple resource types by using an array. The array can include up to 100 items. Note that the length constraint requirement applies to each resource type filter.

Type: Array of strings

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

Pattern: `[\s\S]*`

Required: No

TagFilters (p. 16)

Specifies a list of TagFilters (keys and values) to restrict the output to only those resources that have tags with the specified keys and, if included, the specified values. Each `TagFilter` must contain a key with values optional. A request can include up to 50 keys, and each key can include up to 20 values.

Note the following when deciding how to use TagFilters:

- If you *don't* specify a `TagFilter`, the response includes all resources that are currently tagged or ever had a tag. Resources that currently don't have tags are shown with an empty tag set, like this: `"Tags": []`.
- If you specify more than one filter in a single request, the response returns only those resources that satisfy all filters.
- If you specify a filter that contains more than one value for a key, the response returns resources that match *any* of the specified values for that key.
- If you don't specify a value for a key, the response returns all resources that are tagged with that key, with any or no value.

  For example, for the following filters: `filter1= {keyA,{value1}}`, `filter2={keyB, {value2,value3,value4}}`, `filter3= {keyC}`:
  - `GetResources({filter1})` returns resources tagged with `key1=value1`
  - `GetResources({filter2})` returns resources tagged with `key2=value2` or `key2=value3` or `key2=value4`
  - `GetResources({filter3})` returns resources tagged with any tag with the key `key3`, and with any or no value
  - `GetResources({filter1,filter2,filter3})` returns resources tagged with `(key1=value1) and (key2=value2 or key2=value3 or key2=value4) and (key3, any or no value)`

Type: Array of TagFilter (p. 49) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

TagsPerPage (p. 16)

AWS recommends using `ResourcesPerPage` instead of this parameter.

A limit that restricts the number of tags (key and value pairs) returned by `GetResources` in paginated output. A resource with no tags is counted as having one tag (one key and value pair).

`GetResources` does not split a resource and its associated tags across pages. If the specified `TagsPerPage` would cause such a break, a `PaginationToken` is returned in place of the affected resource and its tags. Use that token in another request to get the remaining data. For example, if you specify a `TagsPerPage` of `100` and the account has 22 resources with 10 tags each (meaning that each resource has 10 key and value pairs), the output will consist of three pages. The first page

displays the first 10 resources, each with its 10 tags. The second page displays the next 10 resources, each with its 10 tags. The third page displays the remaining 2 resources, each with its 10 tags.

You can set `TagsPerPage` to a minimum of 100 items up to a maximum of 500 items.

Type: Integer

Required: No

Response Syntax

```
{
    "PaginationToken": "string",
    "ResourceTagMappingList": [
        {
            "ComplianceDetails": {
                "ComplianceStatus": boolean,
                "KeysWithNoncompliantValues": [ "string" ],
                "NoncompliantKeys": [ "string" ]
            },
            "ResourceARN": "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.

PaginationToken (p. 19)

A string that indicates that there is more data available than this response contains. To receive the next part of the response, specify this response value as the `PaginationToken` value in the request for the next page.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

ResourceTagMappingList (p. 19)

A list of resource ARNs and the tags (keys and values) associated with each.

Type: Array of ResourceTagMapping (p. 45) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

PaginationTokenExpiredException

A `PaginationToken` is valid for a maximum of 15 minutes. Your request was denied because the specified `PaginationToken` has expired.

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of GetResources.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-west-2.amazonaws.com
Accept-Encoding: identity
Content-Length: 80
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.GetResources
X-Amz-Date: 20191201T214524Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization: AUTHPARAMS

{
    "ExcludeCompliantResources": null,
    "IncludeComplianceDetails": true,
    "PaginationToken":" 1
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: 14bc735b-26da-11e7-a933-67e2d2f3ef37
Content-Type: application/x-amz-json-1.1
Content-Length: 4060
Date: Sun, 1 Dec 2019 21:45:25 GMT
{
    "PaginationToken": "",
    "ResourceTagMappingList": [
        {
            "ComplianceDetails": {
                "ComplianceStatus":true,
                "KeysWithNoncompliantValues":[],
                "NoncompliantKeys":[]
            },
            "ResourceARN": "arn:aws:inspector:us-west-2:123456789012:target/0-nvgVhaxX/
template/0-7sbz2Kz0",
            "Tags": []
        }
    ]
}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTagKeys

Returns all tag keys currently in use in the specified AWS Region for the calling account.

This operation supports pagination, where the response can be sent in multiple pages. You should check the `PaginationToken` response parameter to determine if there are additional results available to return. Repeat the query, passing the `PaginationToken` response parameter value as an input to the next request until you recieve a `null` value. A null value for `PaginationToken` indicates that there are no more results waiting to be returned.

Request Syntax

```
{
    "PaginationToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

PaginationToken (p. 22)

> Specifies a `PaginationToken` response value from a previous request to indicate that you want the next page of results. Leave this parameter empty in your initial request.
>
> Type: String
>
> Length Constraints: Minimum length of 0. Maximum length of 2048.
>
> Pattern: `[\s\S]*`
>
> Required: No

Response Syntax

```
{
    "PaginationToken": "string",
    "TagKeys": [ "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.

PaginationToken (p. 22)

> A string that indicates that there is more data available than this response contains. To receive the next part of the response, specify this response value as the `PaginationToken` value in the request for the next page.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

TagKeys (p. 22)

A list of all tag keys in the AWS account.

Type: Array of strings

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

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

PaginationTokenExpiredException

A `PaginationToken` is valid for a maximum of 15 minutes. Your request was denied because the specified `PaginationToken` has expired.

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of GetTagKeys.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-west-2.amazonaws.com
Accept-Encoding: identity
Content-Length: 2
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.GetTagKeys
X-Amz-Date: 20170421T214126Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization: AUTHPARAMS


{}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: 462f0799-26db-11e7-a88c-a74e0c5622c9
Content-Type: application/x-amz-json-1.1
Content-Length: 79
Date: Fri, 21 Apr 2017 21:41:27 GMT

{
    "PaginationToken": "",
    "TagKeys": [
        "Example",
        "Example1",
        "Example2"
    ]
}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTagValues

Returns all tag values for the specified key that are used in the specified AWS Region for the calling account.

This operation supports pagination, where the response can be sent in multiple pages. You should check the `PaginationToken` response parameter to determine if there are additional results available to return. Repeat the query, passing the `PaginationToken` response parameter value as an input to the next request until you recieve a `null` value. A null value for `PaginationToken` indicates that there are no more results waiting to be returned.

Request Syntax

```
{
    "Key": "string",
    "PaginationToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

Key (p. 25)

Specifies the tag key for which you want to list all existing values that are currently used in the specified AWS Region for the calling account.

Type: String

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

Pattern: `[\s\S]*`

Required: Yes

PaginationToken (p. 25)

Specifies a `PaginationToken` response value from a previous request to indicate that you want the next page of results. Leave this parameter empty in your initial request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

Required: No

Response Syntax

```
{
    "PaginationToken": "string",
    "TagValues": [ "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.

PaginationToken (p. 25)

A string that indicates that there is more data available than this response contains. To receive the next part of the response, specify this response value as the `PaginationToken` value in the request for the next page.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\s\S]*`

TagValues (p. 25)

A list of all tag values for the specified key currently used in the specified AWS Region for the calling account.

Type: Array of strings

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

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

PaginationTokenExpiredException

A `PaginationToken` is valid for a maximum of 15 minutes. Your request was denied because the specified `PaginationToken` has expired.

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of GetTagValues.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-west-2.amazonaws.com
Accept-Encoding: identity
Content-Length: 18
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.GetTagValues
X-Amz-Date: 20170421T214524Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization: AUTHPARAMS


{
    "Key": "Example_key"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: d3cf21f0-26db-11e7-a532-75e05382c8b1
Content-Type: application/x-amz-json-1.1
Content-Length: 42
Date: Fri, 21 Apr 2017 21:45:25 GMT

{
    "PaginationToken": "",
    "TagValues": [
        "Example_value"
    ]
}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartReportCreation

Generates a report that lists all tagged resources in the accounts across your organization and tells whether each resource is compliant with the effective tag policy. Compliance data is refreshed daily. The report is generated asynchronously.

The generated report is saved to the following location:

```
s3://example-bucket/AwsTagPolicies/o-exampleorgid/YYYY-MM-ddTHH:mm:ssZ/
report.csv
```

You can call this operation only from the organization's management account and from the us-east-1 Region.

Request Syntax

```
{
    "S3Bucket": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

S3Bucket (p. 29)

The name of the Amazon S3 bucket where the report will be stored; for example:

```
awsexamplebucket
```

For more information on S3 bucket requirements, including an example bucket policy, see the example S3 bucket policy on this page.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `[a-z0-9.-]*`

Required: Yes

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. 52).

ConcurrentModificationException

The target of the operation is currently being modified by a different request. Try again later.

HTTP Status Code: 400

ConstraintViolationException

The request was denied because performing this operation violates a constraint.

Some of the reasons in the following list might not apply to this specific operation.

- You must meet the prerequisites for using tag policies. For information, see Prerequisites and Permissions for Using Tag Policies in the *AWS Organizations User Guide.*
- You must enable the tag policies service principal (`tagpolicies.tag.amazonaws.com`) to integrate with AWS Organizations For information, see EnableAWSServiceAccess.
- You must have a tag policy attached to the organization root, an OU, or an account.

HTTP Status Code: 400

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Sample Amazon S3 policy

Before creating the report, you must grant access for the tag policies service principal to an Amazon S3 bucket for report storage. Attach the following bucket policy to the bucket. The statements in the `Condition` element ensure that the operations can be performed only by the management account of the specified organization. If you don't know your organization ID or your management account's ID, you can call DescribeOrganization to find it.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Sid": "TagPolicyACL",
            "Effect": "Allow",
            "Principal": {
                "Service": [
```

```
                    "tagpolicies.tag.amazonaws.com"
                ]
            },
            "Action": "s3:GetBucketAcl",
            "Resource": "arn:aws:s3:::your-bucket-name",
            "Condition": {
                "StringEquals": {
                    "aws:SourceAccount": "your-org-management-account-id",
                    "aws:SourceArn": "arn:aws:tag:us-east-1:your-org-management-account-
id:*"
                }
            }
        },
        {
            "Sid": "TagPolicyBucketDelivery",
            "Effect": "Allow",
            "Principal": {
                "Service": [
                    "tagpolicies.tag.amazonaws.com"
                ]
            },
            "Action": [
                "s3:PutObject",
                "s3:PutObjectAcl"
            ],
            "Resource": "arn:aws:s3:::your-bucket-name/AwsTagPolicies/your-org-id/*",
            "Condition": {
                "StringEquals": {
                    "aws:SourceAccount": "your-org-management-account-id",
                    "aws:SourceArn": "arn:aws:tag:us-east-1:your-org-management-account-
id:*"
                }
            }
        }
    ]
}
```

Example

This example illustrates one usage of StartReportCreation.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-east-1.amazonaws.com
Accept-Encoding: identity
Content-Length: 20
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.StartReportCreation
X-Amz-Date: 20191201T214524Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization:  AUTHPARAMS

{
    "S3Bucket": "awsexamplebucket"
}
```

Example

This example illustrates one usage of StartReportCreation.

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestID: d3cf21f0-26db-11e7-a532-75e05382c8b1
Content-Type: application/x-amz-json-1.1
Date: Sun, 1 Dec 2019 21:45:25 GMT

{}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResources

Applies one or more tags to the specified resources. Note the following:

- Not all resources can have tags. For a list of services with resources that support tagging using this operation, see Services that support the Resource Groups Tagging API. If the resource doesn't yet support this operation, the resource's service might support tagging using its own API operations. For more information, refer to the documentation for that service.
- Each resource can have up to 50 tags. For other limits, see Tag Naming and Usage Conventions in the *AWS General Reference.*
- You can only tag resources that are located in the specified AWS Region for the AWS account.
- To add tags to a resource, you need the necessary permissions for the service that the resource belongs to as well as permissions for adding tags. For more information, see the documentation for each service.

> **Important**
> Do not store personally identifiable information (PII) or other confidential or sensitive information in tags. We use tags to provide you with billing and administration services. Tags are not intended to be used for private or sensitive data.

Minimum permissions

In addition to the `tag:TagResources` permission required by this operation, you must also have the tagging permission defined by the service that created the resource. For example, to tag an Amazon EC2 instance using the `TagResources` operation, you must have both of the following permissions:

- `tag:TagResource`
- `ec2:CreateTags`

Request Syntax

```
{
    "ResourceARNList": [ "string" ],
    "Tags": {
        "string" : "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

ResourceARNList (p. 33)

Specifies the list of ARNs of the resources that you want to apply tags to.

An ARN (Amazon Resource Name) uniquely identifies a resource. For more information, see Amazon Resource Names (ARNs) and AWS Service Namespaces in the *AWS General Reference*.

Type: Array of strings

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

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `[\s\S]*`

Required: Yes

Tags (p. 33)

Specifies a list of tags that you want to add to the specified resources. A tag consists of a key and a value that you define.

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.

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

Required: Yes

Response Syntax

```
{
   "FailedResourcesMap": {
      "string" : {
         "ErrorCode": "string",
         "ErrorMessage": "string",
         "StatusCode": 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.

FailedResourcesMap (p. 34)

A map containing a key-value pair for each failed item that couldn't be tagged. The key is the ARN of the failed resource. The value is a `FailureInfo` object that contains an error code, a status code, and an error message. If there are no errors, the `FailedResourcesMap` is empty.

Type: String to FailureInfo (p. 43) object map

Key Length Constraints: Minimum length of 1. Maximum length of 1011.

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:

- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.
- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of TagResources.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-west-2.amazonaws.com
Accept-Encoding: identity
Content-Length: 82
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.TagResources
X-Amz-Date: 20170421T214834Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization:  AUTHPARAMS
{
    "ResourceARNList": [
        "arn:aws:s3:::example_bucket"
    ],
    "Tags": {
        "key": "Example_key"
    }
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: 45352206-26dc-11e7-8812-6fb02084e31d
Content-Type: application/x-amz-json-1.1
Content-Length: 0
Date: Fri, 21 Apr 2017 21:48:35 GMT
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResources

Removes the specified tags from the specified resources. When you specify a tag key, the action removes both that key and its associated value. The operation succeeds even if you attempt to remove tags from a resource that were already removed. Note the following:

- To remove tags from a resource, you need the necessary permissions for the service that the resource belongs to as well as permissions for removing tags. For more information, see the documentation for the service whose resource you want to untag.
- You can only tag resources that are located in the specified AWS Region for the calling AWS account.

Minimum permissions

In addition to the `tag:UntagResources` permission required by this operation, you must also have the remove tags permission defined by the service that created the resource. For example, to remove the tags from an Amazon EC2 instance using the `UntagResources` operation, you must have both of the following permissions:

- `tag:UntagResource`
- `ec2:DeleteTags`

Request Syntax

```
{
    "ResourceARNList": [ "string" ],
    "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 50).

The request accepts the following data in JSON format.

ResourceARNList (p. 37)

Specifies a list of ARNs of the resources that you want to remove tags from.

An ARN (Amazon Resource Name) uniquely identifies a resource. For more information, see Amazon Resource Names (ARNs) and AWS Service Namespaces in the *AWS General Reference*.

Type: Array of strings

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

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `[\s\S]*`

Required: Yes

TagKeys (p. 37)

Specifies a list of tag keys that you want to remove from the specified resources.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

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

Required: Yes

Response Syntax

```
{
   "FailedResourcesMap": {
      "string" : {
         "ErrorCode": "string",
         "ErrorMessage": "string",
         "StatusCode": 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.

FailedResourcesMap (p. 38)

A map containing a key-value pair for each failed item that couldn't be untagged. The key is the ARN of the failed resource. The value is a `FailureInfo` object that contains an error code, a status code, and an error message. If there are no errors, the `FailedResourcesMap` is empty.

Type: String to FailureInfo (p. 43) object map

Key Length Constraints: Minimum length of 1. Maximum length of 1011.

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 52).

InternalServiceException

The request processing failed because of an unknown error, exception, or failure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

This error indicates one of the following:
- A parameter is missing.
- A malformed string was supplied for the request parameter.
- An out-of-range value was supplied for the request parameter.

- The target ID is invalid, unsupported, or doesn't exist.
- You can't access the Amazon S3 bucket for report storage. For more information, see Additional Requirements for Organization-wide Tag Compliance Reports in the *AWS Organizations User Guide.*

HTTP Status Code: 400

ThrottledException

The request was denied to limit the frequency of submitted requests.

HTTP Status Code: 400

Examples

Example

This example illustrates one usage of UntagResources.

Sample Request

```
POST / HTTP/1.1
Host: tagging.us-west-2.amazonaws.com
Accept-Encoding: identity
Content-Length: 74
X-Amz-Target: ResourceGroupsTaggingAPI_20170126.UntagResources
X-Amz-Date: 20170421T215122Z
User-Agent: aws-cli/1.11.79 Python/2.7.9 Windows/7 botocore/1.5.42
Content-Type: application/x-amz-json-1.1
Authorization:  AUTHPARAMS
{
    "TagKeys": [
        "key"
    ],
    "ResourceARNList": [
        "arn:aws:s3:::examplebucket"
    ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: a923ddd9-26dc-11e7-bf86-49f2fe9ee8df
Content-Type: application/x-amz-json-1.1
Content-Length: 25
Date: Fri, 21 Apr 2017 21:51:23 GMT

{
    "FailedResourcesMap": {}
}
```

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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Resource Groups Tagging API 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:

ComplianceDetails

Information that shows whether a resource is compliant with the effective tag policy, including details on any noncompliant tag keys.

Contents

ComplianceStatus

Whether a resource is compliant with the effective tag policy.

Type: Boolean

Required: No

KeysWithNoncompliantValues

These are keys defined in the effective policy that are on the resource with either incorrect case treatment or noncompliant values.

Type: Array of strings

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

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

Required: No

NoncompliantKeys

These tag keys on the resource are noncompliant with the effective tag policy.

Type: Array of strings

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

Pattern: `^([\p{L}\p{Z}\p{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 Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FailureInfo

Information about the errors that are returned for each failed resource. This information can include `InternalServiceException` and `InvalidParameterException` errors. It can also include any valid error code returned by the AWS service that hosts the resource that the ARN key represents.

The following are common error codes that you might receive from other AWS services:

- **InternalServiceException** – This can mean that the Resource Groups Tagging API didn't receive a response from another AWS service. It can also mean that the resource type in the request is not supported by the Resource Groups Tagging API. In these cases, it's safe to retry the request and then call GetResources to verify the changes.
- **AccessDeniedException** – This can mean that you need permission to call the tagging operations in the AWS service that contains the resource. For example, to use the Resource Groups Tagging API to tag a Amazon CloudWatch alarm resource, you need permission to call both `TagResources` *and* `TagResource` in the CloudWatch API.

For more information on errors that are generated from other AWS services, see the documentation for that service.

Contents

ErrorCode

The code of the common error. Valid values include `InternalServiceException`, `InvalidParameterException`, and any valid error code returned by the AWS service that hosts the resource that you want to tag.

Type: String

Valid Values: `InternalServiceException | InvalidParameterException`

Required: No

ErrorMessage

The message of the common error.

Type: String

Required: No

StatusCode

The HTTP status code of the common error.

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 Go

- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTagMapping

A list of resource ARNs and the tags (keys and values) that are associated with each.

Contents

ComplianceDetails

Information that shows whether a resource is compliant with the effective tag policy, including details on any noncompliant tag keys.

Type: ComplianceDetails (p. 42) object

Required: No

ResourceARN

The ARN of the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `[\s\S]*`

Required: No

Tags

The tags that have been applied to one or more AWS resources.

Type: Array of Tag (p. 48) 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 Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Summary

A count of noncompliant resources.

Contents

LastUpdated

The timestamp that shows when this summary was generated in this Region.

Type: String

Required: No

NonCompliantResources

The count of noncompliant resources.

Type: Long

Required: No

Region

The AWS Region that the summary applies to.

Type: String

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

Pattern: `[\s\S]*`

Required: No

ResourceType

The AWS resource type.

Type: String

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

Pattern: `[\s\S]*`

Required: No

TargetId

The account identifier or the root identifier of the organization. If you don't know the root ID, you can call the AWS Organizations ListRoots API.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 68.

Pattern: `[a-zA-Z0-9-]*`

Required: No

TargetIdType

Whether the target is an account, an OU, or the organization root.

Type: String

Valid Values: `ACCOUNT | OU | ROOT`

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 V2
- AWS SDK for Ruby V3

Tag

The metadata that you apply to AWS resources to help you categorize and organize them. Each tag consists of a key and a value, both of which you define. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Contents

Key

One part of a key-value pair that makes up a tag. A key is a general label that acts like a category for more specific tag values.

Type: String

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

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

Required: Yes

Value

One part of a key-value pair that make up a tag. A value acts as a descriptor within a tag category (key). The value can be empty or null.

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 Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TagFilter

A list of tags (keys and values) that are used to specify the associated resources.

Contents

Key

One part of a key-value pair that makes up a tag. A key is a general label that acts like a category for more specific tag values.

Type: String

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

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

Required: No

Values

One part of a key-value pair that make up a tag. A value acts as a descriptor within a tag category (key). The value can be empty or null.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 256 items.

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

Pattern: `^([\p{L}\p{Z}\p{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 Go
- 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 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

NotAuthorized

You do not have permission to perform this action.

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