
Amazon CloudWatch Logs

API Reference

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Amazon CloudWatch Logs: API Reference

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Table of Contents

Welcome	1
Actions	2
AssociateKmsKey	3
Request Syntax	3
Request Parameters	3
Response Elements	3
Errors	4
Example	4
See Also	5
CancelExportTask	6
Request Syntax	6
Request Parameters	6
Response Elements	6
Errors	6
Example	7
See Also	7
CreateExportTask	8
Request Syntax	8
Request Parameters	8
Response Syntax	9
Response Elements	9
Errors	10
Example	10
See Also	11
CreateLogGroup	12
Request Syntax	12
Request Parameters	12
Response Elements	13
Errors	13
Example	13
See Also	14
CreateLogStream	15
Request Syntax	15
Request Parameters	15
Response Elements	15
Errors	16
Example	16
See Also	17
DeleteDestination	18
Request Syntax	18
Request Parameters	18
Response Elements	18
Errors	18
Example	19
See Also	19
DeleteLogGroup	20
Request Syntax	20
Request Parameters	20
Response Elements	20
Errors	20
Example	21
See Also	21
DeleteLogStream	22
Request Syntax	22

Request Parameters	22
Response Elements	22
Errors	22
Example	23
See Also	23
DeleteMetricFilter	25
Request Syntax	25
Request Parameters	25
Response Elements	25
Errors	25
Example	26
See Also	26
DeleteResourcePolicy	28
Request Syntax	28
Request Parameters	28
Response Elements	28
Errors	28
See Also	28
DeleteRetentionPolicy	30
Request Syntax	30
Request Parameters	30
Response Elements	30
Errors	30
Example	31
See Also	31
DeleteSubscriptionFilter	32
Request Syntax	32
Request Parameters	32
Response Elements	32
Errors	32
Example	33
See Also	33
DescribeDestinations	35
Request Syntax	35
Request Parameters	35
Response Syntax	35
Response Elements	36
Errors	36
Example	36
See Also	37
DescribeExportTasks	38
Request Syntax	38
Request Parameters	38
Response Syntax	39
Response Elements	39
Errors	39
Example	40
See Also	41
DescribeLogGroups	42
Request Syntax	42
Request Parameters	42
Response Syntax	42
Response Elements	43
Errors	43
Example	43
See Also	44
DescribeLogStreams	45

Request Syntax	45
Request Parameters	45
Response Syntax	46
Response Elements	46
Errors	47
Example	47
See Also	48
DescribeMetricFilters	49
Request Syntax	49
Request Parameters	49
Response Syntax	50
Response Elements	50
Errors	51
Example	51
See Also	52
DescribeResourcePolicies	53
Request Syntax	53
Request Parameters	53
Response Syntax	53
Response Elements	53
Errors	54
See Also	54
DescribeSubscriptionFilters	55
Request Syntax	55
Request Parameters	55
Response Syntax	56
Response Elements	56
Errors	56
Example	57
See Also	57
DisassociateKmsKey	59
Request Syntax	59
Request Parameters	59
Response Elements	59
Errors	59
Example	60
See Also	60
FilterLogEvents	62
Request Syntax	62
Request Parameters	62
Response Syntax	64
Response Elements	64
Errors	65
Example	65
See Also	66
GetLogEvents	67
Request Syntax	67
Request Parameters	67
Response Syntax	68
Response Elements	68
Errors	69
Example	69
See Also	70
ListTagsLogGroup	71
Request Syntax	71
Request Parameters	71
Response Syntax	71

Response Elements	71
Errors	72
See Also	72
PutDestination	73
Request Syntax	73
Request Parameters	73
Response Syntax	74
Response Elements	74
Errors	74
Example	74
See Also	75
PutDestinationPolicy	76
Request Syntax	76
Request Parameters	76
Response Elements	76
Errors	76
Example	77
See Also	77
PutLogEvents	79
Request Syntax	79
Request Parameters	79
Response Syntax	80
Response Elements	80
Errors	81
Example	81
See Also	82
PutMetricFilter	83
Request Syntax	83
Request Parameters	83
Response Elements	84
Errors	84
Example	84
See Also	85
PutResourcePolicy	86
Request Syntax	86
Request Parameters	86
Response Syntax	86
Response Elements	87
Errors	87
See Also	87
PutRetentionPolicy	88
Request Syntax	88
Request Parameters	88
Response Elements	88
Errors	88
Example	89
See Also	89
PutSubscriptionFilter	91
Request Syntax	91
Request Parameters	91
Response Elements	92
Errors	93
Example	93
See Also	94
TagLogGroup	95
Request Syntax	95
Request Parameters	95

Response Elements	95
Errors	96
Example	96
See Also	96
TestMetricFilter	98
Request Syntax	98
Request Parameters	98
Response Syntax	98
Response Elements	99
Errors	99
Examples	99
See Also	107
UntagLogGroup	108
Request Syntax	108
Request Parameters	108
Response Elements	108
Errors	108
Example	109
See Also	109
Data Types	110
Destination	111
Contents	111
See Also	112
ExportTask	113
Contents	113
See Also	114
ExportTaskExecutionInfo	115
Contents	115
See Also	115
ExportTaskStatus	116
Contents	116
See Also	116
FilteredLogEvent	117
Contents	117
See Also	117
InputLogEvent	119
Contents	119
See Also	119
LogGroup	120
Contents	120
See Also	121
LogStream	122
Contents	122
See Also	123
MetricFilter	124
Contents	124
See Also	125
MetricFilterMatchRecord	126
Contents	126
See Also	126
MetricTransformation	127
Contents	127
See Also	127
OutputLogEvent	128
Contents	128
See Also	128
RejectedLogEventsInfo	129

Contents	129
See Also	129
ResourcePolicy	130
Contents	130
See Also	130
SearchedLogStream	131
Contents	131
See Also	131
SubscriptionFilter	132
Contents	132
See Also	133
Making API Requests	134
CloudWatch Logs Endpoints	134
Query Parameters	134
Request Identifiers	134
Query API Authentication	134
Available Libraries	134
Common Parameters	136
Common Errors	138

Welcome

Amazon CloudWatch Logs enables you to monitor, store, and access your system, application, and custom log files. This guide provides detailed information about CloudWatch Logs actions, data types, parameters, and errors. For more information about CloudWatch Logs features, see the [Amazon CloudWatch Logs User Guide](#).

Use the following links to get started using the CloudWatch Logs Query API:

- [Actions \(p. 2\)](#): An alphabetical list of all CloudWatch Logs actions.
- [Data Types \(p. 110\)](#): An alphabetical list of all CloudWatch Logs data types.
- [Common Parameters \(p. 136\)](#): Parameters that all Query actions can use.
- [Common Errors \(p. 138\)](#): Client and server errors that all actions can return.
- [Regions and Endpoints](#): Supported regions and endpoints for all AWS products.

Alternatively, you can use one of the [AWS SDKs](#) to access CloudWatch Logs using an API tailored to your programming language or platform.

Developers in the AWS developer community also provide their own libraries, which you can find at the following AWS developer centers:

- [Java Developer Center](#)
- [JavaScript Developer Center](#)
- [AWS Mobile Services](#)
- [PHP Developer Center](#)
- [Python Developer Center](#)
- [Ruby Developer Center](#)
- [Windows and .NET Developer Center](#)

Actions

The following actions are supported:

- [AssociateKmsKey](#) (p. 3)
- [CancelExportTask](#) (p. 6)
- [CreateExportTask](#) (p. 8)
- [CreateLogGroup](#) (p. 12)
- [CreateLogStream](#) (p. 15)
- [DeleteDestination](#) (p. 18)
- [DeleteLogGroup](#) (p. 20)
- [DeleteLogStream](#) (p. 22)
- [DeleteMetricFilter](#) (p. 25)
- [DeleteResourcePolicy](#) (p. 28)
- [DeleteRetentionPolicy](#) (p. 30)
- [DeleteSubscriptionFilter](#) (p. 32)
- [DescribeDestinations](#) (p. 35)
- [DescribeExportTasks](#) (p. 38)
- [DescribeLogGroups](#) (p. 42)
- [DescribeLogStreams](#) (p. 45)
- [DescribeMetricFilters](#) (p. 49)
- [DescribeResourcePolicies](#) (p. 53)
- [DescribeSubscriptionFilters](#) (p. 55)
- [DisassociateKmsKey](#) (p. 59)
- [FilterLogEvents](#) (p. 62)
- [GetLogEvents](#) (p. 67)
- [ListTagsLogGroup](#) (p. 71)
- [PutDestination](#) (p. 73)
- [PutDestinationPolicy](#) (p. 76)
- [PutLogEvents](#) (p. 79)
- [PutMetricFilter](#) (p. 83)
- [PutResourcePolicy](#) (p. 86)
- [PutRetentionPolicy](#) (p. 88)
- [PutSubscriptionFilter](#) (p. 91)
- [TagLogGroup](#) (p. 95)
- [TestMetricFilter](#) (p. 98)
- [UntagLogGroup](#) (p. 108)

AssociateKmsKey

Associates the specified AWS Key Management Service (AWS KMS) customer master key (CMK) with the specified log group.

Associating an AWS KMS CMK with a log group overrides any existing associations between the log group and a CMK. After a CMK is associated with a log group, all newly ingested data for the log group is encrypted using the CMK. This association is stored as long as the data encrypted with the CMK is still within Amazon CloudWatch Logs. This enables Amazon CloudWatch Logs to decrypt this data whenever it is requested.

Note that it can take up to 5 minutes for this operation to take effect.

If you attempt to associate a CMK with a log group but the CMK does not exist or the CMK is disabled, you will receive an `InvalidParameterException` error.

Request Syntax

```
{  
  "kmsKeyId": "string",  
  "logGroupName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

kmsKeyId (p. 3)

The Amazon Resource Name (ARN) of the CMK to use when encrypting log data. For more information, see [Amazon Resource Names - AWS Key Management Service \(AWS KMS\)](#).

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

logGroupName (p. 3)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_\#A-Za-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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To associate a log group with an AWS KMS CMK

The following example associates the specified log group with the specified AWS KMS CMK.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.AssociateKmsKey
{
  "logGroupName": "my-log-group",
  "kmsKeyId": "arn:aws:kms:us-east-1:123456789012:key/abcd1234-a123-456a-a12b-a123b456c789"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

CancelExportTask

Cancels the specified export task.

The task must be in the `PENDING` or `RUNNING` state.

Request Syntax

```
{  
  "taskId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

taskId (p. 6)

The ID of the export task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

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 \(p. 138\)](#).

InvalidOperationException

The operation is not valid on the specified resource.

HTTP Status Code: 400

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To cancel an export task

The following example cancels the specified task.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.CancelExportTask
{
  "taskId": "exampleTaskId"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

CreateExportTask

Creates an export task, which allows you to efficiently export data from a log group to an Amazon S3 bucket.

This is an asynchronous call. If all the required information is provided, this operation initiates an export task and responds with the ID of the task. After the task has started, you can use [DescribeExportTasks](#) (p. 38) to get the status of the export task. Each account can only have one active (RUNNING or PENDING) export task at a time. To cancel an export task, use [CancelExportTask](#) (p. 6).

You can export logs from multiple log groups or multiple time ranges to the same S3 bucket. To separate out log data for each export task, you can specify a prefix to be used as the Amazon S3 key prefix for all exported objects.

Request Syntax

```
{
  "destination": "string",
  "destinationPrefix": "string",
  "from": number,
  "logGroupName": "string",
  "logStreamNamePrefix": "string",
  "taskName": "string",
  "to": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

destination (p. 8)

The name of S3 bucket for the exported log data. The bucket must be in the same AWS region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: Yes

destinationPrefix (p. 8)

The prefix used as the start of the key for every object exported. If you don't specify a value, the default is `exportedlogs`.

Type: String

Required: No

from (p. 8)

The start time of the range for the request, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp earlier than this time are not exported.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

logGroupName (p. 8)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ _ / # A - Z a - z 0 - 9] +

Required: Yes

logStreamNamePrefix (p. 8)

Export only log streams that match the provided prefix. If you don't specify a value, no prefix filter is applied.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

taskName (p. 8)

The name of the export task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

to (p. 8)

The end time of the range for the request, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp later than this time are not exported.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

Response Syntax

```
{
  "taskId": "string"
}
```

Response Elements

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

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

taskId (p. 9)

The ID of the export task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

LimitExceededException

You have reached the maximum number of resources that can be created.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceAlreadyExistsException

The specified resource already exists.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create an export task

The following example creates an export task that exports data from a log group to an S3 bucket.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
```

```
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.CreateExportTask
{
  "taskName": "my-task",
  "logGroupName": "my-log-group",
  "from": 1437584472382,
  "to": 1437584472833,
  "destination": "my-destination",
  "destinationPrefix": "my-prefix"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "taskId": "exampleTaskId"
}
```

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 V2](#)

CreateLogGroup

Creates a log group with the specified name.

You can create up to 5000 log groups per account.

You must use the following guidelines when naming a log group:

- Log group names must be unique within a region for an AWS account.
- Log group names can be between 1 and 512 characters long.
- Log group names consist of the following characters: a-z, A-Z, 0-9, '_' (underscore), '-' (hyphen), '/' (forward slash), and '.' (period).

If you associate a AWS Key Management Service (AWS KMS) customer master key (CMK) with the log group, ingested data is encrypted using the CMK. This association is stored as long as the data encrypted with the CMK is still within Amazon CloudWatch Logs. This enables Amazon CloudWatch Logs to decrypt this data whenever it is requested.

If you attempt to associate a CMK with the log group but the CMK does not exist or the CMK is disabled, you will receive an `InvalidParameterException` error.

Request Syntax

```
{  
  "kmsKeyId": "string",  
  "logGroupName": "string",  
  "tags": {  
    "string" : "string"  
  }  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

kmsKeyId (p. 12)

The Amazon Resource Name (ARN) of the CMK to use when encrypting log data. For more information, see [Amazon Resource Names - AWS Key Management Service \(AWS KMS\)](#).

Type: String

Length Constraints: Maximum length of 256.

Required: No

logGroupName (p. 12)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_\#A-Za-z0-9]+`

Required: Yes

tags (p. 12)

The key-value pairs to use for the tags.

Type: String to string map

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

LimitExceededException

You have reached the maximum number of resources that can be created.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceAlreadyExistsException

The specified resource already exists.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create a log group

The following example creates a log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.CreateLogGroup
{
  "logGroupName": "my-log-group",
  "kmsKeyId": "arn:aws:kms:us-east-1:123456789012:key/abcd1234-a123-456a-a12b-a123b456c789"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

CreateLogStream

Creates a log stream for the specified log group.

There is no limit on the number of log streams that you can create for a log group.

You must use the following guidelines when naming a log stream:

- Log stream names must be unique within the log group.
- Log stream names can be between 1 and 512 characters long.
- The ':' (colon) and '*' (asterisk) characters are not allowed.

Request Syntax

```
{  
  "logGroupName": "string",  
  "logStreamName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

[logGroupName \(p. 15\)](#)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: Yes

[logStreamName \(p. 15\)](#)

The name of the log stream.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceAlreadyExistsException

The specified resource already exists.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create a log stream

The following example creates a log stream for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.CreateLogStream
{
  "logGroupName": "my-log-group",
  "logStreamName": "my-log-stream"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```


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 V2](#)

DeleteDestination

Deletes the specified destination, and eventually disables all the subscription filters that publish to it. This operation does not delete the physical resource encapsulated by the destination.

Request Syntax

```
{  
  "destinationName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

destinationName (p. 18)

The name of the destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To delete a destination

The following example deletes the specified destination.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DeleteDestination
{
  "destinationName": my-destination
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

DeleteLogGroup

Deletes the specified log group and permanently deletes all the archived log events associated with the log group.

Request Syntax

```
{  
  "logGroupName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

logGroupName (p. 20)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To delete a log group

The following example deletes the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DeleteLogGroup
{
  "logGroupName": "my-log-group"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

DeleteLogStream

Deletes the specified log stream and permanently deletes all the archived log events associated with the log stream.

Request Syntax

```
{  
  "logGroupName": "string",  
  "logStreamName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

[logGroupName \(p. 22\)](#)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ _ / # A - Z a - z 0 - 9] +

Required: Yes

[logStreamName \(p. 22\)](#)

The name of the log stream.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To delete a log stream

The following example deletes the specified log stream.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DeleteLogStream
{
  "logGroupName": "my-log-group",
  "logStreamName": "my-log-stream"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

DeleteMetricFilter

Deletes the specified metric filter.

Request Syntax

```
{  
  "filterName": "string",  
  "logGroupName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

filterName (p. 25)

The name of the metric filter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: Yes

logGroupName (p. 25)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 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. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To delete a metric filter

The following example deletes the specified filter for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DeleteMetricFilter
{
  "logGroupName": "my-log-group",
  "filterName": "my-metric-filter"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

DeleteResourcePolicy

Deletes a resource policy from this account. This revokes the access of the identities in that policy to put log events to this account.

Request Syntax

```
{  
  "policyName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

policyName (p. 28)

The name of the policy to be revoked. This parameter is required.

Type: String

Required: No

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

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 V2](#)

DeleteRetentionPolicy

Deletes the specified retention policy.

Log events do not expire if they belong to log groups without a retention policy.

Request Syntax

```
{  
  "logGroupName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

logGroupName (p. 30)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To delete a retention policy

The following example deletes the retention policy for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DeleteRetentionPolicy
{
  "logGroupName": "my-log-group"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

DeleteSubscriptionFilter

Deletes the specified subscription filter.

Request Syntax

```
{  
  "filterName": "string",  
  "logGroupName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

filterName (p. 32)

The name of the subscription filter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: Yes

logGroupName (p. 32)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 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. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To delete a subscription filter

The following example deletes the specified subscription filter for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DeleteSubscriptionFilter
{
  "logGroupName": "my-log-group",
  "filterName": "my-subscription-filter"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

DescribeDestinations

Lists all your destinations. The results are ASCII-sorted by destination name.

Request Syntax

```
{  
  "DestinationNamePrefix": "string",  
  "limit": number,  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

[DestinationNamePrefix \(p. 35\)](#)

The prefix to match. If you don't specify a value, no prefix filter is applied.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

[limit \(p. 35\)](#)

The maximum number of items returned. If you don't specify a value, the default is up to 50 items.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

[nextToken \(p. 35\)](#)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{  
  "destinations": [  
    {  
      "accessPolicy": "string",  
    }  
  ]  
}
```

```
    "arn": "string",  
    "creationTime": number,  
    "destinationName": "string",  
    "roleArn": "string",  
    "targetArn": "string"  
  }  
],  
  "nextToken": "string"  
}
```

Response Elements

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

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

destinations (p. 35)

The destinations.

Type: Array of [Destination](#) (p. 111) objects

nextToken (p. 35)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list all destinations

The following example lists all the destinations for the account.

Sample Request

```
POST / HTTP/1.1  
Host: logs.<region>.<domain>  
X-Amz-Date: <DATE>
```

```
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DescribeDestinations
{
  "destinationNamePrefix": "my-prefix"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "destination": [
    {
      "destinationName": "my-destination",
      "targetArn": "arn:aws:kinesis:us-east-1:123456789012:stream/my-kinesis-stream",
      "roleArn": "arn:aws:iam:123456789012:role/my-subscription-role",
      "arn": "arn:aws:logs:us-east-1:123456789012:destination:my-destination",
      "creationTime": 1437584472382
    }
  ]
}
```

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 V2](#)

DescribeExportTasks

Lists the specified export tasks. You can list all your export tasks or filter the results based on task ID or task status.

Request Syntax

```
{  
  "limit": number,  
  "nextToken": "string",  
  "statusCode": "string",  
  "taskId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

limit (p. 38)

The maximum number of items returned. If you don't specify a value, the default is up to 50 items.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

nextToken (p. 38)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

statusCode (p. 38)

The status code of the export task. Specifying a status code filters the results to zero or more export tasks.

Type: String

Valid Values: CANCELLED | COMPLETED | FAILED | PENDING | PENDING_CANCEL | RUNNING

Required: No

taskId (p. 38)

The ID of the export task. Specifying a task ID filters the results to zero or one export tasks.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

Response Syntax

```
{
  "exportTasks": [
    {
      "destination": "string",
      "destinationPrefix": "string",
      "executionInfo": {
        "completionTime": number,
        "creationTime": number
      },
      "from": number,
      "logGroupName": "string",
      "status": {
        "code": "string",
        "message": "string"
      },
      "taskId": "string",
      "taskName": "string",
      "to": 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.

exportTasks (p. 39)

The export tasks.

Type: Array of [ExportTask](#) (p. 113) objects

nextToken (p. 39)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list the export tasks that are complete

The following example lists the export tasks with the COMPLETE status.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DescribeExportTasks
{
  "statusCode": "COMPLETE"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "exportTasks": [
    {
      "taskId": "exampleTaskId",
      "taskName": "my-task-1",
      "logGroupName": "my-log-group",
      "from": 1437584472382,
      "to": 1437584472833,
      "destination": "my-destination",
      "destinationPrefix": "my-prefix",
      "status": {
        "code": "COMPLETE",
        "message": "Example message"
      },
      "executionInfo": {
        "creationTime": 1437584472856,
        "completionTime": 1437584472986
      }
    },
    {
      "taskId": "exampleTaskId",
      "taskName": "my-task-2",
```



```
    "logGroupName": "my-log-group",
    "from": 1437584472382,
    "to": 1437584472833,
    "destination": "my-destination",
    "destinationPrefix": "my-prefix",
    "status":
      {
        "code": "COMPLETE",
        "message": "Example message"
      },
    "executionInfo":
      {
        "creationTime": 1437584472856,
        "completionTime" : 1437584472986
      }
  }
]
```

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 V2](#)

DescribeLogGroups

Lists the specified log groups. You can list all your log groups or filter the results by prefix. The results are ASCII-sorted by log group name.

Request Syntax

```
{  
  "limit": number,  
  "logGroupNamePrefix": "string",  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

limit (p. 42)

The maximum number of items returned. If you don't specify a value, the default is up to 50 items.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

logGroupNamePrefix (p. 42)

The prefix to match.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\. _ - / # A - Z a - z 0 - 9] +

Required: No

nextToken (p. 42)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{  
  "logGroups": [  
    {  
      ...  
    }  
  ]  
}
```

```
    "arn": "string",
    "creationTime": number,
    "kmsKeyId": "string",
    "logGroupName": "string",
    "metricFilterCount": number,
    "retentionInDays": number,
    "storedBytes": 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.

logGroups (p. 42)

The log groups.

Type: Array of [LogGroup](#) (p. 120) objects

nextToken (p. 42)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list all log groups

The following example lists all your log groups.

Sample Request

```
POST / HTTP/1.1
```

```
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DescribeLogGroups
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "logGroups": [
    {
      "storageBytes": 1048576,
      "arn": "arn:aws:logs:us-east-1:123456789012:log-group:my-log-group-1:*",
      "creationTime": 1393545600000,
      "logGroupName": "my-log-group-1",
      "metricFilterCount": 0,
      "retentionInDays": 14,
      "kmsKeyId": "arn:aws:kms:us-east-1:123456789012:key/abcd1234-a123-456a-a12b-a123b4cd56ef"
    },
    {
      "storageBytes": 5242880,
      "arn": "arn:aws:logs:us-east-1:123456789012:log-group:my-log-group-2:*",
      "creationTime": 1396224000000,
      "logGroupName": "my-log-group-2",
      "metricFilterCount": 0,
      "retentionInDays": 30
    }
  ]
}
```

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 V2](#)

DescribeLogStreams

Lists the log streams for the specified log group. You can list all the log streams or filter the results by prefix. You can also control how the results are ordered.

This operation has a limit of five transactions per second, after which transactions are throttled.

Request Syntax

```
{
  "descending": boolean,
  "limit": number,
  "logGroupName": "string",
  "logStreamNamePrefix": "string",
  "nextToken": "string",
  "orderBy": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

[descending](#) (p. 45)

If the value is true, results are returned in descending order. If the value is to false, results are returned in ascending order. The default value is false.

Type: Boolean

Required: No

[limit](#) (p. 45)

The maximum number of items returned. If you don't specify a value, the default is up to 50 items.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

[logGroupName](#) (p. 45)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [`\. _ / #A-Za-z0-9`]+

Required: Yes

[logStreamNamePrefix](#) (p. 45)

The prefix to match.

If `orderBy` is `LastEventTime`, you cannot specify this parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[^:]*`

Required: No

`nextToken` (p. 45)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

`orderBy` (p. 45)

If the value is `LogStreamName`, the results are ordered by log stream name. If the value is `LastEventTime`, the results are ordered by the event time. The default value is `LogStreamName`.

If you order the results by event time, you cannot specify the `logStreamNamePrefix` parameter.

`lastEventTimestamp` represents the time of the most recent log event in the log stream in CloudWatch Logs. This number is expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. `lastEventTimestamp` updates on an eventual consistency basis. It typically updates in less than an hour from ingestion, but may take longer in some rare situations.

Type: String

Valid Values: `LogStreamName` | `LastEventTime`

Required: No

Response Syntax

```
{
  "logStreams": [
    {
      "arn": "string",
      "creationTime": number,
      "firstEventTimestamp": number,
      "lastEventTimestamp": number,
      "lastIngestionTime": number,
      "logStreamName": "string",
      "storedBytes": number,
      "uploadSequenceToken": "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.

logStreams (p. 46)

The log streams.

Type: Array of [LogStream \(p. 122\)](#) objects

nextToken (p. 46)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list the log streams for a log group

The following example lists the log streams associated with the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DescribeLogStreams
{
  "logGroupName": "my-log-group"
```

```
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "logStreams": [
    {
      "storageBytes": 1048576,
      "arn": "arn:aws:logs:us-east-1:123456789012:log-group:my-log-group-1:log-stream:my-log-stream-1",
      "creationTime": 1393545600000,
      "firstEventTimestamp": 1393545600000,
      "lastEventTimestamp": 1393567800000,
      "lastIngestionTime": 1393589200000,
      "logStreamName": "my-log-stream-1",
      "uploadSequenceToken": "88602967394531410094953670125156212707622379445839968487"
    },
    {
      "storageBytes": 5242880,
      "arn": "arn:aws:logs:us-east-1:123456789012:log-group:my-log-group-2:log-stream:my-log-stream-2",
      "creationTime": 1396224000000,
      "firstEventTimestamp": 1396224000000,
      "lastEventTimestamp": 1396235500000,
      "lastIngestionTime": 1396225560000,
      "logStreamName": "my-log-stream-2",
      "uploadSequenceToken": "07622379445839968487886029673945314100949536701251562127"
    }
  ]
}
```

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 V2](#)

DescribeMetricFilters

Lists the specified metric filters. You can list all the metric filters or filter the results by log name, prefix, metric name, or metric namespace. The results are ASCII-sorted by filter name.

Request Syntax

```
{  
  "filterNamePrefix": "string",  
  "limit": number,  
  "logGroupName": "string",  
  "metricName": "string",  
  "metricNamespace": "string",  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

filterNamePrefix (p. 49)

The prefix to match.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

limit (p. 49)

The maximum number of items returned. If you don't specify a value, the default is up to 50 items.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

logGroupName (p. 49)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ _ / # A - Z a - z 0 - 9] +

Required: No

metricName (p. 49)

Filters results to include only those with the specified metric name. If you include this parameter in your request, you must also include the `metricNamespace` parameter.

Type: String

Length Constraints: Maximum length of 255.

Pattern: [^ : * \$] *

Required: No

[metricNamespace \(p. 49\)](#)

Filters results to include only those in the specified namespace. If you include this parameter in your request, you must also include the `metricName` parameter.

Type: String

Length Constraints: Maximum length of 255.

Pattern: [^ : * \$] *

Required: No

[nextToken \(p. 49\)](#)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
  "metricFilters": [
    {
      "creationTime": number,
      "filterName": "string",
      "filterPattern": "string",
      "logGroupName": "string",
      "metricTransformations": [
        {
          "defaultValue": number,
          "metricName": "string",
          "metricNamespace": "string",
          "metricValue": "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.

[metricFilters \(p. 50\)](#)

The metric filters.

Type: Array of [MetricFilter \(p. 124\)](#) objects
[nextToken \(p. 50\)](#)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list the metric filters for a log group

The following example lists the metric filters for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DescribeMetricFilters
{
  "logGroupName": "my-log-group"
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "metricFilters": [
    {
      "creationTime": 1396224000000,
      "filterName": "my-metric-filter",
      "filterPattern": "[ip, identity, user_id, timestamp, request, status_code, size]",
      "logGroupName": "my-log-group",
      "metricTransformations": [
        {
          "defaultValue": "0",
          "metricValue": "$size",
          "metricNamespace": "my-app",
          "metricName": "Volume"
        }
      ]
    }
  ]
}
```

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 V2](#)

DescribeResourcePolicies

Lists the resource policies in this account.

Request Syntax

```
{  
  "limit": number,  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

limit (p. 53)

The maximum number of resource policies to be displayed with one call of this API.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

nextToken (p. 53)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{  
  "nextToken": "string",  
  "resourcePolicies": [  
    {  
      "lastUpdatedTime": number,  
      "policyDocument": "string",  
      "policyName": "string"  
    }  
  ]  
}
```

Response Elements

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

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

[nextToken \(p. 53\)](#)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

[resourcePolicies \(p. 53\)](#)

The resource policies that exist in this account.

Type: Array of [ResourcePolicy \(p. 130\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

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 V2](#)

DescribeSubscriptionFilters

Lists the subscription filters for the specified log group. You can list all the subscription filters or filter the results by prefix. The results are ASCII-sorted by filter name.

Request Syntax

```
{  
  "filterNamePrefix": "string",  
  "limit": number,  
  "logGroupName": "string",  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

filterNamePrefix (p. 55)

The prefix to match. If you don't specify a value, no prefix filter is applied.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

limit (p. 55)

The maximum number of items returned. If you don't specify a value, the default is up to 50 items.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

logGroupName (p. 55)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: Yes

nextToken (p. 55)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
  "nextToken": "string",
  "subscriptionFilters": [
    {
      "creationTime": number,
      "destinationArn": "string",
      "distribution": "string",
      "filterName": "string",
      "filterPattern": "string",
      "logGroupName": "string",
      "roleArn": "string"
    }
  ]
}
```

Response Elements

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

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

nextToken (p. 56)

The token for the next set of items to return. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

subscriptionFilters (p. 56)

The subscription filters.

Type: Array of [SubscriptionFilter](#) (p. 132) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list the subscription filters for a log group

The following example lists the subscription filters for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DescribeSubscriptionFilters
{
  "logGroupName": "my-log-group"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "subscriptionFilters": [
    {
      "creationTime": 1396224000000,
      "logGroupName": "my-log-group",
      "filterName": "my-subscription-ilter",
      "filterPattern": "[ip, identity, user_id, timestamp, request, status_code = 500, size]",
      "destinationArn": "arn:aws:kinesis:us-east-1:123456789012:stream/my-kinesis-stream",
      "roleArn": "arn:aws:iam::123456789012:role/my-subscription-role"
    }
  ]
}
```

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 V2](#)

DisassociateKmsKey

Disassociates the associated AWS Key Management Service (AWS KMS) customer master key (CMK) from the specified log group.

After the AWS KMS CMK is disassociated from the log group, AWS CloudWatch Logs stops encrypting newly ingested data for the log group. All previously ingested data remains encrypted, and AWS CloudWatch Logs requires permissions for the CMK whenever the encrypted data is requested.

Note that it can take up to 5 minutes for this operation to take effect.

Request Syntax

```
{
  "logGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

logGroupName (p. 59)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To disassociate an AWS KMS CMK from a log group

The following example disassociates the associated AWS KMS CMK from the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.DisassociateKmsKey
{
  "logGroupName": "my-log-group",
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

FilterLogEvents

Lists log events from the specified log group. You can list all the log events or filter the results using a filter pattern, a time range, and the name of the log stream.

By default, this operation returns as many log events as can fit in 1 MB (up to 10,000 log events), or all the events found within the time range that you specify. If the results include a token, then there are more log events available, and you can get additional results by specifying the token in a subsequent call.

Request Syntax

```
{  
  "endTime": number,  
  "filterPattern": "string",  
  "interleaved": boolean,  
  "limit": number,  
  "logGroupName": "string",  
  "logStreamNamePrefix": "string",  
  "logStreamNames": [ "string" ],  
  "nextToken": "string",  
  "startTime": number  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

endTime (p. 62)

The end of the time range, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp later than this time are not returned.

Type: Long

Valid Range: Minimum value of 0.

Required: No

filterPattern (p. 62)

The filter pattern to use. For more information, see [Filter and Pattern Syntax](#).

If not provided, all the events are matched.

Type: String

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

Required: No

interleaved (p. 62)

If the value is true, the operation makes a best effort to provide responses that contain events from multiple log streams within the log group, interleaved in a single response. If the value is false, all

the matched log events in the first log stream are searched first, then those in the next log stream, and so on. The default is false.

Type: Boolean

Required: No

limit (p. 62)

The maximum number of events to return. The default is 10,000 events.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

Required: No

logGroupName (p. 62)

The name of the log group to search.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: Yes

logStreamNamePrefix (p. 62)

Filters the results to include only events from log streams that have names starting with this prefix.

If you specify a value for both `logStreamNamePrefix` and `logStreamNames`, but the value for `logStreamNamePrefix` does not match any log stream names specified in `logStreamNames`, the action returns an `InvalidParameterException` error.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

logStreamNames (p. 62)

Filters the results to only logs from the log streams in this list.

If you specify a value for both `logStreamNamePrefix` and `logStreamNames`, the action returns an `InvalidParameterException` error.

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 512.

Pattern: [^ : *] *

Required: No

nextToken (p. 62)

The token for the next set of events to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

[startTime \(p. 62\)](#)

The start of the time range, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp before this time are not returned.

Type: Long

Valid Range: Minimum value of 0.

Required: No

Response Syntax

```
{
  "events": [
    {
      "eventId": "string",
      "ingestionTime": number,
      "logStreamName": "string",
      "message": "string",
      "timestamp": number
    }
  ],
  "nextToken": "string",
  "searchedLogStreams": [
    {
      "logStreamName": "string",
      "searchedCompletely": boolean
    }
  ]
}
```

Response Elements

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

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

[events \(p. 64\)](#)

The matched events.

Type: Array of [FilteredLogEvent \(p. 117\)](#) objects

[nextToken \(p. 64\)](#)

The token to use when requesting the next set of items. The token expires after 24 hours.

Type: String

Length Constraints: Minimum length of 1.

[searchedLogStreams \(p. 64\)](#)

Indicates which log streams have been searched and whether each has been searched completely.

Type: Array of [SearchedLogStream](#) (p. 131) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list the events in a log group that contain a pattern

The following example lists the events for the specified log group that contain 'ERROR'.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.FilterLogEvents
{
  "logGroupName": "my-log-group",
  "filterPattern": "ERROR"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "events": [
    {
```

```

        "ingestionTime": 1396035394997,
        "timestamp": 1396035378988,
        "message": "ERROR Event 1",
        "logStreamName": "my-log-stream-1",
        "eventId": "31132629274945519779805322857203735586714454643391594505"
    },
    {
        "ingestionTime": 1396035394997,
        "timestamp": 1396035378988,
        "message": "ERROR Event 2",
        "logStreamName": "my-log-stream-2",
        "eventId": "31132629274945519779805322857203735586814454643391594505"
    },
    {
        "ingestionTime": 1396035394997,
        "timestamp": 1396035378989,
        "message": "ERROR Event 3",
        "logStreamName": "my-log-stream-3",
        "eventId": "31132629274945519779805322857203735586824454643391594505"
    }
],
"searchedLogStreams": [
    {
        "searchedCompletely": true,
        "logStreamName": "my-log-stream-1"
    },
    {
        "searchedCompletely": true,
        "logStreamName": "my-log-stream-2"
    },
    {
        "searchedCompletely": false,
        "logStreamName": "my-log-stream-3"
    }
],
"nextToken": "ZNUEPl7FcQuXbIH4Swk9D9eFu2XBg-ijZIZlvzz4ea9zZRjw-
MMtQttvcoMdmq4T29K7Q6Y1e_KvyfpcT_f_tUw"
}

```

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 V2](#)

GetLogEvents

Lists log events from the specified log stream. You can list all the log events or filter using a time range.

By default, this operation returns as many log events as can fit in a response size of 1MB (up to 10,000 log events). You can get additional log events by specifying one of the tokens in a subsequent call.

Request Syntax

```
{  
  "endTime": number,  
  "limit": number,  
  "logGroupName": "string",  
  "logStreamName": "string",  
  "nextToken": "string",  
  "startFromHead": boolean,  
  "startTime": number  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

[endTime](#) (p. 67)

The end of the time range, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp equal to or later than this time are not included.

Type: Long

Valid Range: Minimum value of 0.

Required: No

[limit](#) (p. 67)

The maximum number of log events returned. If you don't specify a value, the maximum is as many log events as can fit in a response size of 1 MB, up to 10,000 log events.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10000.

Required: No

[logGroupName](#) (p. 67)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [`\. \- _/ #A-Z a-z 0-9`]+

Required: Yes

logStreamName (p. 67)

The name of the log stream.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: Yes

nextToken (p. 67)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 1.

Required: No

startFromHead (p. 67)

If the value is true, the earliest log events are returned first. If the value is false, the latest log events are returned first. The default value is false.

Type: Boolean

Required: No

startTime (p. 67)

The start of the time range, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp equal to this time or later than this time are included. Events with a time stamp earlier than this time are not included.

Type: Long

Valid Range: Minimum value of 0.

Required: No

Response Syntax

```
{
  "events": [
    {
      "ingestionTime": number,
      "message": "string",
      "timestamp": number
    }
  ],
  "nextBackwardToken": "string",
  "nextForwardToken": "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.

events (p. 68)

The events.

Type: Array of [OutputLogEvent \(p. 128\)](#) objects

nextBackwardToken (p. 68)

The token for the next set of items in the backward direction. The token expires after 24 hours. This token will never be null. If you have reached the end of the stream, it will return the same token you passed in.

Type: String

Length Constraints: Minimum length of 1.

nextForwardToken (p. 68)

The token for the next set of items in the forward direction. The token expires after 24 hours. If you have reached the end of the stream, it will return the same token you passed in.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To list all the events for a log stream

The following example lists all events for the specified log stream.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
```

```
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-
type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.GetLogEvents
{
  "logGroupName": "my-log-group",
  "logStreamName": "my-log-stream"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "events": [
    {
      "ingestionTime": 1396035394997,
      "timestamp": 1396035378988,
      "message": "Example event 1"
    },
    {
      "ingestionTime": 1396035394997,
      "timestamp": 1396035378988,
      "message": "Example event 2"
    },
    {
      "ingestionTime": 1396035394997,
      "timestamp": 1396035378989,
      "message": "Example event 3"
    }
  ],
  "nextBackwardToken": "b/31132629274945519779805322857203735586714454643391594505",
  "nextForwardToken": "f/31132629323784151764587387538205132201699397759403884544"
}
```

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 V2](#)

ListTagsLogGroup

Lists the tags for the specified log group.

Request Syntax

```
{  
  "logGroupName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

[logGroupName \(p. 71\)](#)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [`\. \- _ / # A-Z a-z 0-9`]+

Required: Yes

Response Syntax

```
{  
  "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 \(p. 71\)](#)

The tags for the log group.

Type: String to string map

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

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

Value Length Constraints: Maximum length of 256.

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

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 V2](#)

PutDestination

Creates or updates a destination. A destination encapsulates a physical resource (such as an Amazon Kinesis stream) and enables you to subscribe to a real-time stream of log events for a different account, ingested using [PutLogEvents](#) (p. 79). Currently, the only supported physical resource is a Kinesis stream belonging to the same account as the destination.

Through an access policy, a destination controls what is written to its Kinesis stream. By default, `PutDestination` does not set any access policy with the destination, which means a cross-account user cannot call [PutSubscriptionFilter](#) (p. 91) against this destination. To enable this, the destination owner must call [PutDestinationPolicy](#) (p. 76) after `PutDestination`.

Request Syntax

```
{
  "destinationName": "string",
  "roleArn": "string",
  "targetArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

[destinationName](#) (p. 73)

A name for the destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: Yes

[roleArn](#) (p. 73)

The ARN of an IAM role that grants CloudWatch Logs permissions to call the Amazon Kinesis `PutRecord` operation on the destination stream.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

[targetArn](#) (p. 73)

The ARN of an Amazon Kinesis stream to which to deliver matching log events.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

Response Syntax

```
{
  "destination": {
    "accessPolicy": "string",
    "arn": "string",
    "creationTime": number,
    "destinationName": "string",
    "roleArn": "string",
    "targetArn": "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.

destination (p. 74)

The destination.

Type: [Destination](#) (p. 111) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create or update a destination

The following example creates the specified destination.

Sample Request

```
POST / HTTP/1.1
```

```
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.PutDestination
{
  "destinationName": "my-destination",
  "targetArn": "arn:aws:kinesis:us-east-1:123456789012:stream/my-kinesis-stream",
  "roleArn": "arn:aws:iam::123456789012:role/my-subscription-role"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "destination": [
    {
      "destinationName": "my-destination",
      "targetArn": "arn:aws:kinesis:us-east-1:123456789012:stream/my-kinesis-stream",
      "roleArn": "arn:aws:iam::123456789012:role/my-subscription-role",
      "arn": "arn:aws:logs:us-east-1:123456789012:destination:my-destination",
      "creationTime": 1437584472382
    }
  ]
}
```

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 V2](#)

PutDestinationPolicy

Creates or updates an access policy associated with an existing destination. An access policy is an [IAM policy document](#) that is used to authorize claims to register a subscription filter against a given destination.

Request Syntax

```
{  
  "accessPolicy": "string",  
  "destinationName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

accessPolicy (p. 76)

An IAM policy document that authorizes cross-account users to deliver their log events to the associated destination.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

destinationName (p. 76)

A name for an existing destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

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. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create or update an access policy of a destination

The following example updates the access policy of the specified destination.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.PutDestinationPolicy
{
  "destinationName": "my-destination",
  "accessPolicy": "{ \"Version\": \"2012-10-17\", \"Statement\": [{ \"Effect\": \"Allow\", \"Principal\": { \"AWS\": \"logs.us-east-1.amazonaws.com\" }, \"Action\": \"logs:PutSubscriptionFilter\", \"Resource\": \"arn:aws:logs:us-east-1:123456789012:destination:my-destination\" } ] }"
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

PutLogEvents

Uploads a batch of log events to the specified log stream.

You must include the sequence token obtained from the response of the previous call. An upload in a newly created log stream does not require a sequence token. You can also get the sequence token using [DescribeLogStreams](#) (p. 45). If you call `PutLogEvents` twice within a narrow time period using the same value for `sequenceToken`, both calls may be successful, or one may be rejected.

The batch of events must satisfy the following constraints:

- The maximum batch size is 1,048,576 bytes, and this size is calculated as the sum of all event messages in UTF-8, plus 26 bytes for each log event.
- None of the log events in the batch can be more than 2 hours in the future.
- None of the log events in the batch can be older than 14 days or the retention period of the log group.
- The log events in the batch must be in chronological order by their time stamp. The time stamp is the time the event occurred, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. (In AWS Tools for PowerShell and the AWS SDK for .NET, the timestamp is specified in .NET format: yyyy-mm-ddThh:mm:ss. For example, 2017-09-15T13:45:30.)
- The maximum number of log events in a batch is 10,000.
- A batch of log events in a single request cannot span more than 24 hours. Otherwise, the operation fails.

If a call to `PutLogEvents` returns "UnrecognizedClientException" the most likely cause is an invalid AWS access key ID or secret key.

Request Syntax

```
{
  "logEvents": [
    {
      "message": "string",
      "timestamp": number
    }
  ],
  "logGroupName": "string",
  "logStreamName": "string",
  "sequenceToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

`logEvents` (p. 79)

The log events.

Type: Array of [InputLogEvent](#) (p. 119) objects

Array Members: Minimum number of 1 item. Maximum number of 10000 items.

Required: Yes

logGroupName (p. 79)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ _ / # A - Z a - z 0 - 9] +

Required: Yes

logStreamName (p. 79)

The name of the log stream.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: Yes

sequenceToken (p. 79)

The sequence token obtained from the response of the previous `PutLogEvents` call. An upload in a newly created log stream does not require a sequence token. You can also get the sequence token using [DescribeLogStreams](#) (p. 45). If you call `PutLogEvents` twice within a narrow time period using the same value for `sequenceToken`, both calls may be successful, or one may be rejected.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
  "nextSequenceToken": "string",
  "rejectedLogEventsInfo": {
    "expiredLogEventEndIndex": number,
    "tooNewLogEventStartIndex": number,
    "tooOldLogEventEndIndex": 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.

nextSequenceToken (p. 80)

The next sequence token.

Type: String

Length Constraints: Minimum length of 1.

[rejectedLogEventsInfo \(p. 80\)](#)

The rejected events.

Type: [RejectedLogEventsInfo \(p. 129\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

DataAlreadyAcceptedException

The event was already logged.

HTTP Status Code: 400

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

InvalidSequenceTokenException

The sequence token is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

UnrecognizedClientException

The most likely cause is an invalid AWS access key ID or secret key.

HTTP Status Code: 400

Example

To upload log events into a log stream

The following example uploads the specified log events to the specified log stream.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
```

```
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.PutLogEvents
{
  "logGroupName": "my-log-group",
  "logStreamName": "my-log-stream",
  "logEvents": [
    {
      "timestamp": 1396035378988,
      "message": "Example event 1"
    },
    {
      "timestamp": 1396035378988,
      "message": "Example event 2"
    },
    {
      "timestamp": 1396035378989,
      "message": "Example event 3"
    }
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "nextSequenceToken": "49536701251539826331025683274032969384950891766572122113"
}
```

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 V2](#)

PutMetricFilter

Creates or updates a metric filter and associates it with the specified log group. Metric filters allow you to configure rules to extract metric data from log events ingested through [PutLogEvents \(p. 79\)](#).

The maximum number of metric filters that can be associated with a log group is 100.

Request Syntax

```
{
  "filterName": "string",
  "filterPattern": "string",
  "logGroupName": "string",
  "metricTransformations": [
    {
      "defaultValue": number,
      "metricName": "string",
      "metricNamespace": "string",
      "metricValue": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

[filterName \(p. 83\)](#)

A name for the metric filter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: Yes

[filterPattern \(p. 83\)](#)

A filter pattern for extracting metric data out of ingested log events.

Type: String

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

Required: Yes

[logGroupName \(p. 83\)](#)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: Yes

[metricTransformations \(p. 83\)](#)

A collection of information that defines how metric data gets emitted.

Type: Array of [MetricTransformation \(p. 127\)](#) objects

Array Members: Fixed number of 1 item.

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

LimitExceededException

You have reached the maximum number of resources that can be created.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create or update a metric filter

The following example creates a metric filter for the specified log group.

Sample Request

```
POST / HTTP/1.1
```

```
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.PutMetricFilter
{
  "logGroupName": "my-log-group",
  "filterName": "my-metric-filter",
  "filterPattern": "[ip, identity, user_id, timestamp, request, status_code, size]",
  "metricTransformations": [
    {
      "defaultValue": "0",
      "metricValue": "$size",
      "metricNamespace": "MyApp",
      "metricName": "Volume"
    }
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

PutResourcePolicy

Creates or updates a resource policy allowing other AWS services to put log events to this account, such as Amazon Route 53. An account can have up to 10 resource policies per region.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

policyDocument (p. 86)

Details of the new policy, including the identity of the principal that is enabled to put logs to this account. This is formatted as a JSON string.

The following example creates a resource policy enabling the Route 53 service to put DNS query logs in to the specified log group. Replace "logArn" with the ARN of your CloudWatch Logs resource, such as a log group or log stream.

```
{ "Version": "2012-10-17", "Statement": [ { "Sid":  
  "Route53LogsToCloudWatchLogs", "Effect": "Allow", "Principal": { "Service":  
  [ "route53.amazonaws.com" ] }, "Action": "logs:PutLogEvents", "Resource":  
  "logArn" } ] }
```

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5120.

Required: No

policyName (p. 86)

Name of the new policy. This parameter is required.

Type: String

Required: No

Response Syntax

```
{  
  "resourcePolicy": {  
    "lastUpdatedTime": number,  
    "policyDocument": "string",  
    "policyName": "string"  
  }  
}
```

Response Elements

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

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

resourcePolicy (p. 86)

The new policy.

Type: [ResourcePolicy](#) (p. 130) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

LimitExceededException

You have reached the maximum number of resources that can be created.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

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 V2](#)

PutRetentionPolicy

Sets the retention of the specified log group. A retention policy allows you to configure the number of days for which to retain log events in the specified log group.

Request Syntax

```
{  
  "logGroupName": "string",  
  "retentionInDays": number  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

logGroupName (p. 88)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ _ / # A - Z a - z 0 - 9] +

Required: Yes

retentionInDays (p. 88)

The number of days to retain the log events in the specified log group. Possible values are: 1, 3, 5, 7, 14, 30, 60, 90, 120, 150, 180, 365, 400, 545, 731, 1827, and 3653.

Type: Integer

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. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create or update a retention policy for a log group

The following example creates a 30-day retention policy for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.PutRetentionPolicy
{
  "logGroupName": "my-log-group",
  "retentionInDays": 30
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

PutSubscriptionFilter

Creates or updates a subscription filter and associates it with the specified log group. Subscription filters allow you to subscribe to a real-time stream of log events ingested through [PutLogEvents \(p. 79\)](#) and have them delivered to a specific destination. Currently, the supported destinations are:

- An Amazon Kinesis stream belonging to the same account as the subscription filter, for same-account delivery.
- A logical destination that belongs to a different account, for cross-account delivery.
- An Amazon Kinesis Firehose delivery stream that belongs to the same account as the subscription filter, for same-account delivery.
- An AWS Lambda function that belongs to the same account as the subscription filter, for same-account delivery.

There can only be one subscription filter associated with a log group. If you are updating an existing filter, you must specify the correct name in `filterName`. Otherwise, the call fails because you cannot associate a second filter with a log group.

Request Syntax

```
{  
  "destinationArn": "string",  
  "distribution": "string",  
  "filterName": "string",  
  "filterPattern": "string",  
  "logGroupName": "string",  
  "roleArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

[destinationArn \(p. 91\)](#)

The ARN of the destination to deliver matching log events to. Currently, the supported destinations are:

- An Amazon Kinesis stream belonging to the same account as the subscription filter, for same-account delivery.
- A logical destination (specified using an ARN) belonging to a different account, for cross-account delivery.
- An Amazon Kinesis Firehose delivery stream belonging to the same account as the subscription filter, for same-account delivery.
- An AWS Lambda function belonging to the same account as the subscription filter, for same-account delivery.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

distribution (p. 91)

The method used to distribute log data to the destination. By default log data is grouped by log stream, but the grouping can be set to random for a more even distribution. This property is only applicable when the destination is an Amazon Kinesis stream.

Type: String

Valid Values: `Random` | `ByLogStream`

Required: No

filterName (p. 91)

A name for the subscription filter. If you are updating an existing filter, you must specify the correct name in `filterName`. Otherwise, the call fails because you cannot associate a second filter with a log group. To find the name of the filter currently associated with a log group, use [DescribeSubscriptionFilters \(p. 55\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[^ : *] *`

Required: Yes

filterPattern (p. 91)

A filter pattern for subscribing to a filtered stream of log events.

Type: String

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

Required: Yes

logGroupName (p. 91)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\ . \ - _ / # A - Z a - z 0 - 9] +`

Required: Yes

roleArn (p. 91)

The ARN of an IAM role that grants CloudWatch Logs permissions to deliver ingested log events to the destination stream. You don't need to provide the ARN when you are working with a logical destination for cross-account delivery.

Type: String

Length Constraints: Minimum length of 1.

Required: No

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 \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

LimitExceededException

You have reached the maximum number of resources that can be created.

HTTP Status Code: 400

OperationAbortedException

Multiple requests to update the same resource were in conflict.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Example

To create or update a subscription filter

The following example creates a subscription filter.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.PutSubscriptionFilter
{
  "logGroupName": "my-log-group",
  "filterName": "my-subscription-filter",
  "filterPattern": "[ip, identity, user_id, timestamp, request, status_code = 500, size]",
  "destinationArn": "arn:aws:kinesis:us-east-1:123456789012:stream/my-kinesis-stream",
  "roleArn": "arn:aws:iam::123456789012:role/my-subscription-role"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

TagLogGroup

Adds or updates the specified tags for the specified log group.

To list the tags for a log group, use [ListTagsLogGroup](#) (p. 71). To remove tags, use [UntagLogGroup](#) (p. 108).

For more information about tags, see [Tag Log Groups in Amazon CloudWatch Logs](#) in the *Amazon CloudWatch Logs User Guide*.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

[logGroupName](#) (p. 95)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\._\-/#A-Za-z0-9]+`

Required: Yes

[tags](#) (p. 95)

The key-value pairs to use for the tags.

Type: String to string map

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

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

Value Length Constraints: Maximum length of 256.

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

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

Example

To add tags for a log group

The following example adds the specified tags for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TagLogGroup
{
  "logGroupName": "my-log-group",
  "tags": {
    "Project": "A",
    "Environment": "test"
  }
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

TestMetricFilter

Tests the filter pattern of a metric filter against a sample of log event messages. You can use this operation to validate the correctness of a metric filter pattern.

Request Syntax

```
{
  "filterPattern": "string",
  "logEventMessages": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 136).

The request accepts the following data in JSON format.

filterPattern (p. 98)

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event may contain time stamps, IP addresses, strings, and so on. You use the filter pattern to specify what to look for in the log event message.

Type: String

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

Required: Yes

logEventMessages (p. 98)

The log event messages to test.

Type: Array of strings

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

Length Constraints: Minimum length of 1.

Required: Yes

Response Syntax

```
{
  "matches": [
    {
      "eventMessage": "string",
      "eventNumber": number,
      "extractedValues": {
        "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.

matches (p. 98)

The matched events.

Type: Array of [MetricFilterMatchRecord](#) (p. 126) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 138).

InvalidParameterException

A parameter is specified incorrectly.

HTTP Status Code: 400

ServiceUnavailableException

The service cannot complete the request.

HTTP Status Code: 500

Examples

To test a metric filter pattern on Apache access.log events

The following example tests the specified metric filter pattern.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
{
  "filterPattern": "[ip, identity, user_id, timestamp, request, status_code, size]",
  "logEventMessages": [
    "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 1534",
    "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif HTTP/1.0\" 500 5324",
    "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 4355"
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 0,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif
HTTP/1.0\" 200 1534",
      "extractedValues": {
        "$status_code": "200",
        "$identity": "-",
        "$request": "GET /apache_pb.gif HTTP/1.0",
        "$size": "1534",
        "$user_id": "frank",
        "$ip": "127.0.0.1",
        "$timestamp": "10/Oct/2000:13:25:15 -0700"
      }
    },
    {
      "eventNumber": 1,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif
HTTP/1.0\" 500 5324",
      "extractedValues": {
        "$status_code": "500",
        "$identity": "-",
        "$request": "GET /apache_pb.gif HTTP/1.0",
        "$size": "5324",
        "$user_id": "frank",
        "$ip": "127.0.0.1",
        "$timestamp": "10/Oct/2000:13:35:22 -0700"
      }
    },
    {
      "eventNumber": 2,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif
HTTP/1.0\" 200 4355",
      "extractedValues": {
        "$status_code": "200",
        "$identity": "-",
        "$request": "GET /apache_pb.gif HTTP/1.0",
        "$size": "4355",
        "$user_id": "frank",
        "$ip": "127.0.0.1",
        "$timestamp": "10/Oct/2000:13:50:35 -0700"
      }
    }
  ]
}
```

To test a metric filter pattern on Apache access.log events without specifying all the fields

The following example tests the specified metric filter pattern.

Sample Request

```
POST / HTTP/1.1
```

```
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-
type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
{
  "filterPattern": "[..., size]",
  "logEventMessages": [
    "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 1534",
    "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif HTTP/1.0\" 500 5324",
    "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 4355"
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 0,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 1534",
      "extractedValues": {
        "$size": "1534",
        "$6": "200",
        "$4": "10/Oct/2000:13:25:15 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
      }
    },
    {
      "eventNumber": 1,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif HTTP/1.0\" 500 5324",
      "extractedValues": {
        "$size": "5324",
        "$6": "500",
        "$4": "10/Oct/2000:13:35:22 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
      }
    },
    {
      "eventNumber": 2,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 4355",
      "extractedValues": {
```

```

        "$size": "4355",
        "$6": "200",
        "$4": "10/Oct/2000:13:50:35 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
    }
}
]
}

```

To test a metric filter pattern on Apache access.log events without specifying any fields

The following example tests the specified metric filter pattern.

Sample Request

```

POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
{
  "filterPattern": "[ ]",
  "logEventMessages": [
    "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 1534",
    "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif HTTP/1.0\" 500 5324",
    "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 4355"
  ]
}

```

Sample Response

```

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 0,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 1534",
      "extractedValues": {
        "$7": "1534",
        "$6": "200",
        "$4": "10/Oct/2000:13:25:15 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",

```

```

        "$3": "frank",
        "$1": "127.0.0.1"
    }
},
{
    "eventNumber": 1,
    "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif HTTP/1.0\" 500 5324",
    "extractedValues": {
        "$7": "5324",
        "$6": "500",
        "$4": "10/Oct/2000:13:35:22 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
    }
},
{
    "eventNumber": 2,
    "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 4355",
    "extractedValues": {
        "$7": "4355",
        "$6": "200",
        "$4": "10/Oct/2000:13:50:35 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
    }
}
]
}

```

To test a metric filter pattern that matches successful requests in Apache access.log events

The following example tests the specified metric filter pattern.

Sample Request

```

POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
{
    "filterPattern": "[..., status_code=200, size]",
    "logEventMessages": [
        "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 1534",
        "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /apache_pb.gif HTTP/1.0\" 500 5324",
        "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 200 4355"
    ]
}

```

```
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 0,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /apache_pb.gif
HTTP/1.0\" 200 1534",
      "extractedValues": {
        "$status_code": "200",
        "$size": "1534",
        "$4": "10/Oct/2000:13:25:15 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
      }
    },
    {
      "eventNumber": 2,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif
HTTP/1.0\" 200 4355",
      "extractedValues": {
        "$status_code": "200",
        "$size": "4355",
        "$4": "10/Oct/2000:13:50:35 -0700",
        "$5": "GET /apache_pb.gif HTTP/1.0",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
      }
    }
  ]
}
```

To test a metric filter pattern that matches 4XX response codes for html pages in Apache access.log events

The following example tests the specified metric filter pattern.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-
type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
{
```



```
"filterPattern": "[..., request=*.html*, status_code=4*]",
"logEventMessages": [
  "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /index.html HTTP/1.0\" 404 1534",
  "127.0.0.1 - frank [10/Oct/2000:13:35:22 -0700] \"GET /about-us/index.html HTTP/1.0\"
200 5324",
  "127.0.0.1 - frank [10/Oct/2000:13:50:35 -0700] \"GET /apache_pb.gif HTTP/1.0\" 404
4355",
  "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /products/index.html HTTP/1.0\"
400 1534",
]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 0,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /index.html
HTTP/1.0\" 404 1534",
      "extractedValues": {
        "$status_code": "404",
        "$request": "GET /index.html HTTP/1.0",
        "$7": "1534",
        "$4": "10/Oct/2000:13:25:15 -0700",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
      }
    },
    {
      "eventNumber": 3,
      "eventMessage": "127.0.0.1 - frank [10/Oct/2000:13:25:15 -0700] \"GET /products/
index.html HTTP/1.0\" 400 1534",
      "extractedValues": {
        "$status_code": "400",
        "$request": "GET /products/index.html HTTP/1.0",
        "$7": "1534",
        "$4": "10/Oct/2000:13:25:15 -0700",
        "$2": "-",
        "$3": "frank",
        "$1": "127.0.0.1"
      }
    }
  ]
}
```

To test a metric filter pattern that matches occurrences of "[ERROR]" in log events

The following example tests the specified metric filter pattern.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
```

```
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-
type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
{
  "filterPattern": "\"[ERROR]\"",
  "logEventMessages": [
    "02 May 2014 00:34:12,525 [INFO] Starting the application",
    "02 May 2014 00:35:14,245 [DEBUG] Database connection established",
    "02 May 2014 00:34:14,663 [INFO] Executing SQL Query",
    "02 May 2014 00:34:16,142 [ERROR] Unhandled exception: InvalidQueryException",
    "02 May 2014 00:34:16,224 [ERROR] Terminating the application"
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 3,
      "eventMessage": "02 May 2014 00:34:16,142 [ERROR] Unhandled exception:
InvalidQueryException",
      "extractedValues": {}
    },
    {
      "eventNumber": 4,
      "eventMessage": "02 May 2014 00:34:16,224 [ERROR] Terminating the application",
      "extractedValues": {}
    }
  ]
}
```

To test a metric filter pattern that matches occurrences of "[ERROR]" and "Exception" in log events

The following example tests the specified metric filter pattern.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-
type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.TestMetricFilter
```

```
{
  "filterPattern": "\"[ERROR]\" Exception",
  "logEventMessages": [
    "02 May 2014 00:34:12,525 [INFO] Starting the application",
    "02 May 2014 00:35:14,245 [DEBUG] Database connection established",
    "02 May 2014 00:34:14,663 [INFO] Executing SQL Query",
    "02 May 2014 00:34:16,142 [ERROR] Unhandled exception: InvalidQueryException",
    "02 May 2014 00:34:16,224 [ERROR] Terminating the application"
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "matches": [
    {
      "eventNumber": 3,
      "eventMessage": "02 May 2014 00:34:16,142 [ERROR] Unhandled exception:
InvalidQueryException",
      "extractedValues": {}
    }
  ]
}
```

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 V2](#)

UntagLogGroup

Removes the specified tags from the specified log group.

To list the tags for a log group, use [ListTagsLogGroup \(p. 71\)](#). To add tags, use [UntagLogGroup \(p. 108\)](#).

Request Syntax

```
{  
  "logGroupName": "string",  
  "tags": [ "string" ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 136\)](#).

The request accepts the following data in JSON format.

logGroupName (p. 108)

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\. _ _ / # A - Z a - z 0 - 9] +

Required: Yes

tags (p. 108)

The tag keys. The corresponding tags are removed from the log group.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

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

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 138\)](#).

ResourceNotFoundException

The specified resource does not exist.

HTTP Status Code: 400

Example

To remove tags from a log group

The following example removes the specified tags for the specified log group.

Sample Request

```
POST / HTTP/1.1
Host: logs.<region>.<domain>
X-Amz-Date: <DATE>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<Signature>
User-Agent: <UserAgentString>
Accept: application/json
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: Logs_20140328.UntagLogGroup
{
  "logGroupName": "my-log-group",
  "tags": {"Project", "Environment"}
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
```

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 V2](#)

Data Types

The Amazon CloudWatch Logs 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:

- [Destination](#) (p. 111)
- [ExportTask](#) (p. 113)
- [ExportTaskExecutionInfo](#) (p. 115)
- [ExportTaskStatus](#) (p. 116)
- [FilteredLogEvent](#) (p. 117)
- [InputLogEvent](#) (p. 119)
- [LogGroup](#) (p. 120)
- [LogStream](#) (p. 122)
- [MetricFilter](#) (p. 124)
- [MetricFilterMatchRecord](#) (p. 126)
- [MetricTransformation](#) (p. 127)
- [OutputLogEvent](#) (p. 128)
- [RejectedLogEventsInfo](#) (p. 129)
- [ResourcePolicy](#) (p. 130)
- [SearchedLogStream](#) (p. 131)
- [SubscriptionFilter](#) (p. 132)

Destination

Represents a cross-account destination that receives subscription log events.

Contents

accessPolicy

An IAM policy document that governs which AWS accounts can create subscription filters against this destination.

Type: String

Length Constraints: Minimum length of 1.

Required: No

arn

The ARN of this destination.

Type: String

Required: No

creationTime

The creation time of the destination, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

destinationName

The name of the destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

roleArn

A role for impersonation, used when delivering log events to the target.

Type: String

Length Constraints: Minimum length of 1.

Required: No

targetArn

The Amazon Resource Name (ARN) of the physical target to where the log events are delivered (for example, a Kinesis stream).

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

ExportTask

Represents an export task.

Contents

destination

The name of Amazon S3 bucket to which the log data was exported.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

destinationPrefix

The prefix that was used as the start of Amazon S3 key for every object exported.

Type: String

Required: No

executionInfo

Execution info about the export task.

Type: [ExportTaskExecutionInfo](#) (p. 115) object

Required: No

from

The start time, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp before this time are not exported.

Type: Long

Valid Range: Minimum value of 0.

Required: No

logGroupName

The name of the log group from which logs data was exported.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: No

status

The status of the export task.

Type: [ExportTaskStatus](#) (p. 116) object

Required: No

taskId

The ID of the export task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

taskName

The name of the export task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

to

The end time, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. Events with a time stamp later than this time are not exported.

Type: Long

Valid Range: Minimum value of 0.

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 V2](#)

ExportTaskExecutionInfo

Represents the status of an export task.

Contents

completionTime

The completion time of the export task, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

creationTime

The creation time of the export task, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

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 V2](#)

ExportTaskStatus

Represents the status of an export task.

Contents

code

The status code of the export task.

Type: String

Valid Values: CANCELLED | COMPLETED | FAILED | PENDING | PENDING_CANCEL | RUNNING

Required: No

message

The status message related to the status code.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

FilteredLogEvent

Represents a matched event.

Contents

eventId

The ID of the event.

Type: String

Required: No

ingestionTime

The time the event was ingested, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

logStreamName

The name of the log stream this event belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

message

The data contained in the log event.

Type: String

Length Constraints: Minimum length of 1.

Required: No

timestamp

The time the event occurred, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

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 V2](#)

InputLogEvent

Represents a log event, which is a record of activity that was recorded by the application or resource being monitored.

Contents

message

The raw event message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

timestamp

The time the event occurred, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

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 V2](#)

LogGroup

Represents a log group.

Contents

arn

The Amazon Resource Name (ARN) of the log group.

Type: String

Required: No

creationTime

The creation time of the log group, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

kmsKeyId

The Amazon Resource Name (ARN) of the CMK to use when encrypting log data.

Type: String

Length Constraints: Maximum length of 256.

Required: No

logGroupName

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: No

metricFilterCount

The number of metric filters.

Type: Integer

Required: No

retentionInDays

The number of days to retain the log events in the specified log group. Possible values are: 1, 3, 5, 7, 14, 30, 60, 90, 120, 150, 180, 365, 400, 545, 731, 1827, and 3653.

Type: Integer

Required: No

storedBytes

The number of bytes stored.

Type: Long

Valid Range: Minimum value of 0.

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 V2](#)

LogStream

Represents a log stream, which is a sequence of log events from a single emitter of logs.

Contents

arn

The Amazon Resource Name (ARN) of the log stream.

Type: String

Required: No

creationTime

The creation time of the stream, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

firstEventTimestamp

The time of the first event, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

lastEventTimestamp

the time of the most recent log event in the log stream in CloudWatch Logs. This number is expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC. lastEventTime updates on an eventual consistency basis. It typically updates in less than an hour from ingestion, but may take longer in some rare situations.

Type: Long

Valid Range: Minimum value of 0.

Required: No

lastIngestionTime

The ingestion time, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

logStreamName

The name of the log stream.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *]*

Required: No

storedBytes

The number of bytes stored.

Type: Long

Valid Range: Minimum value of 0.

Required: No

uploadSequenceToken

The sequence token.

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

MetricFilter

Metric filters express how CloudWatch Logs would extract metric observations from ingested log events and transform them into metric data in a CloudWatch metric.

Contents

creationTime

The creation time of the metric filter, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

filterName

The name of the metric filter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

filterPattern

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event may contain time stamps, IP addresses, strings, and so on. You use the filter pattern to specify what to look for in the log event message.

Type: String

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

Required: No

logGroupName

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: No

metricTransformations

The metric transformations.

Type: Array of [MetricTransformation](#) (p. 127) objects

Array Members: Fixed number of 1 item.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

MetricFilterMatchRecord

Represents a matched event.

Contents

eventMessage

The raw event data.

Type: String

Length Constraints: Minimum length of 1.

Required: No

eventNumber

The event number.

Type: Long

Required: No

extractedValues

The values extracted from the event data by the filter.

Type: String to string map

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 V2](#)

MetricTransformation

Indicates how to transform ingested log events in to metric data in a CloudWatch metric.

Contents

defaultValue

(Optional) The value to emit when a filter pattern does not match a log event. This value can be null.

Type: Double

Required: No

metricName

The name of the CloudWatch metric.

Type: String

Length Constraints: Maximum length of 255.

Pattern: [^ : * \$] *

Required: Yes

metricNamespace

The namespace of the CloudWatch metric.

Type: String

Length Constraints: Maximum length of 255.

Pattern: [^ : * \$] *

Required: Yes

metricValue

The value to publish to the CloudWatch metric when a filter pattern matches a log event.

Type: String

Length Constraints: Maximum length of 100.

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

OutputLogEvent

Represents a log event.

Contents

ingestionTime

The time the event was ingested, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

message

The data contained in the log event.

Type: String

Length Constraints: Minimum length of 1.

Required: No

timestamp

The time the event occurred, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

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 V2](#)

RejectedLogEventsInfo

Represents the rejected events.

Contents

expiredLogEventEndIndex

The expired log events.

Type: Integer

Required: No

tooNewLogEventStartIndex

The log events that are too new.

Type: Integer

Required: No

tooOldLogEventEndIndex

The log events that are too old.

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](#)
- [AWS SDK for Ruby V2](#)

ResourcePolicy

A policy enabling one or more entities to put logs to a log group in this account.

Contents

lastUpdatedTime

Time stamp showing when this policy was last updated, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

policyDocument

The details of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5120.

Required: No

policyName

The name of the resource policy.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

SearchedLogStream

Represents the search status of a log stream.

Contents

logStreamName

The name of the log stream.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [^ : *] *

Required: No

searchedCompletely

Indicates whether all the events in this log stream were searched.

Type: Boolean

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

SubscriptionFilter

Represents a subscription filter.

Contents

creationTime

The creation time of the subscription filter, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

destinationArn

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Minimum length of 1.

Required: No

distribution

The method used to distribute log data to the destination, which can be either random or grouped by log stream.

Type: String

Valid Values: `Random` | `ByLogStream`

Required: No

filterName

The name of the subscription filter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[^ : *]*`

Required: No

filterPattern

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event may contain time stamps, IP addresses, strings, and so on. You use the filter pattern to specify what to look for in the log event message.

Type: String

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

Required: No

logGroupName

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: [\ . \ - _ / # A - Z a - z 0 - 9] +

Required: No

roleArn

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Making API Requests

Query requests used with CloudWatch Logs are HTTP or HTTPS requests that use the HTTP verb GET or POST and a Query parameter named `Action` or `Operation`. This documentation uses `Action`, although `Operation` is supported for backward compatibility.

CloudWatch Logs Endpoints

An endpoint is a URL that serves as an entry point for a web service. You can select a regional endpoint when you make your requests to reduce latency. For information about the endpoints used with CloudWatch Logs, see [Regions and Endpoints](#) in the *Amazon Web Services General Reference*.

Query Parameters

Each query request must include some common parameters to handle authentication and selection of an action. For more information, see [Common Parameters \(p. 136\)](#).

Some API operations take lists of parameters. These lists are specified using the following notation: `param.member.n`. Values of `n` are integers starting from 1. All lists of parameters must follow this notation, including lists that contain only one parameter. For example, a Query parameter list looks like this:

```
&attribute.member.1=this  
&attribute.member.2=that
```

Request Identifiers

In every response from an AWS Query API, there is a `ResponseMetadata` element, which contains a `RequestId` element. This string is a unique identifier that AWS assigns to provide tracking information. Although `RequestId` is included as part of every response, it is not listed on the individual API documentation pages to improve readability and to reduce redundancy.

Query API Authentication

You can send query requests over either HTTP or HTTPS. Regardless of which protocol you use, you must include a signature in every query request. For more information about creating and including a signature, see [Signing AWS API Requests](#) in the *Amazon Web Services General Reference*.

Available Libraries

AWS provides libraries, sample code, tutorials, and other resources for software developers who prefer to build applications using language-specific APIs instead of the command-line tools and Query API. These libraries provide basic functions (not included in the APIs), such as request authentication, request

retries, and error handling so that it is easier to get started. Libraries and resources are available for the following languages and platforms:

- [AWS Mobile SDK for Android](#)
- [AWS SDK for Go](#)
- [AWS Mobile SDK for iOS](#)
- [AWS SDK for Java 2.x](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for JavaScript in Node.js](#)
- [AWS SDK for .NET](#)
- [AWS SDK for PHP](#)
- [AWS SDK for Python \(Boto\)](#)
- [AWS SDK for Ruby](#)

For libraries and sample code in all languages, see [Sample Code & Libraries](#).

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'THHMMSS'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