aws

API Reference

# Amazon CloudWatch Logs



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# Amazon CloudWatch Logs: API Reference

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# Welcome

You can use Amazon CloudWatch Logs to monitor, store, and access your log files from EC2 instances, AWS CloudTrail, and other sources. You can then retrieve the associated log data from CloudWatch Logs using the CloudWatch console. Alternatively, you can use CloudWatch Logs commands in the AWS CLI, CloudWatch Logs API, or CloudWatch Logs SDK.

For more information about CloudWatch Logs features, see the Amazon CloudWatch Logs User Guide.

You can use CloudWatch Logs to:

- **Monitor logs from EC2 instances in real time**: You can use CloudWatch Logs to monitor applications and systems using log data. For example, CloudWatch Logs can track the number of errors that occur in your application logs. Then, it can send you a notification whenever the rate of errors exceeds a threshold that you specify. CloudWatch Logs uses your log data for monitoring so no code changes are required. For example, you can monitor application logs for specific literal terms (such as "NullReferenceException"). You can also count the number of occurrences of a literal term at a particular position in log data (such as "404" status codes in an Apache access log). When the term you are searching for is found, CloudWatch Logs reports the data to a CloudWatch metric that you specify.
- **Monitor AWS CloudTrail logged events**: You can create alarms in CloudWatch and receive notifications of particular API activity as captured by CloudTrail. You can use the notification to perform troubleshooting.
- **Archive log data**: You can use CloudWatch Logs to store your log data in highly durable storage. You can change the log retention setting so that any log events earlier than this setting are automatically deleted. The CloudWatch Logs agent helps to quickly send both rotated and non-rotated log data off of a host and into the log service. You can then access the raw log data when you need it.

> **Note**
>
> CloudWatch Logs might log request contents for fields that aren't considered sensitive, such as API request parameters for CloudWatch Logs actions. This provides debugging information for failed API requests.

This document was last published on October 30, 2026.

# Actions

The following actions are supported:

- AssociateKmsKey
- AssociateSourceToS3TableIntegration
- CancelExportTask
- CancelImportTask
- CreateDelivery
- CreateExportTask
- CreateImportTask
- CreateLogAnomalyDetector
- CreateLogGroup
- CreateLogStream
- CreateLookupTable
- CreateScheduledQuery
- DeleteAccountPolicy
- DeleteDataProtectionPolicy
- DeleteDelivery
- DeleteDeliveryDestination
- DeleteDeliveryDestinationPolicy
- DeleteDeliverySource
- DeleteDestination
- DeleteIndexPolicy
- DeleteIntegration
- DeleteLogAnomalyDetector
- DeleteLogGroup
- DeleteLogStream
- DeleteLookupTable
- DeleteMetricFilter
- DeleteQueryDefinition

- DeleteResourcePolicy
- DeleteRetentionPolicy
- DeleteScheduledQuery
- DeleteSubscriptionFilter
- DeleteSyslogConfiguration
- DeleteTransformer
- DescribeAccountPolicies
- DescribeConfigurationTemplates
- DescribeDeliveries
- DescribeDeliveryDestinations
- DescribeDeliverySources
- DescribeDestinations
- DescribeExportTasks
- DescribeFieldIndexes
- DescribeImportTaskBatches
- DescribeImportTasks
- DescribeIndexPolicies
- DescribeLogGroups
- DescribeLogStreams
- DescribeLookupTables
- DescribeMetricFilters
- DescribeQueries
- DescribeQueryDefinitions
- DescribeResourcePolicies
- DescribeSubscriptionFilters
- DisassociateKmsKey
- DisassociateSourceFromS3TableIntegration
- FilterLogEvents
- GetDataProtectionPolicy
- GetDelivery

- GetDeliveryDestination
- GetDeliveryDestinationPolicy
- GetDeliverySource
- GetIntegration
- GetLogAnomalyDetector
- GetLogEvents
- GetLogFields
- GetLogGroupFields
- GetLogObject
- GetLogRecord
- GetLookupTable
- GetQueryResults
- GetScheduledQuery
- GetScheduledQueryHistory
- GetStorageTierPolicy
- GetTransformer
- ListAggregateLogGroupSummaries
- ListAnomalies
- ListIntegrations
- ListLogAnomalyDetectors
- ListLogGroups
- ListLogGroupsForQuery
- ListScheduledQueries
- ListSourcesForS3TableIntegration
- ListSyslogConfigurations
- ListTagsForResource
- ListTagsLogGroup
- PutAccountPolicy
- PutBearerTokenAuthentication
- PutDataProtectionPolicy

- PutDeliveryDestination
- PutDeliveryDestinationPolicy
- PutDeliverySource
- PutDestination
- PutDestinationPolicy
- PutIndexPolicy
- PutIntegration
- PutLogEvents
- PutLogGroupDeletionProtection
- PutMetricFilter
- PutQueryDefinition
- PutResourcePolicy
- PutRetentionPolicy
- PutStorageTierPolicy
- PutSubscriptionFilter
- PutSyslogConfiguration
- PutTransformer
- StartLiveTail
- StartQuery
- StopQuery
- TagLogGroup
- TagResource
- TestMetricFilter
- TestTransformer
- UntagLogGroup
- UntagResource
- UpdateAnomaly
- UpdateDeliveryConfiguration
- UpdateLogAnomalyDetector
- UpdateLookupTable

- UpdateScheduledQuery

# AssociateKmsKey

Associates the specified AWS KMS key with either one log group in the account, or with all stored CloudWatch Logs query insights results in the account.

When you use `AssociateKmsKey`, you specify either the `logGroupName` parameter or the `resourceIdentifier` parameter. You can't specify both of those parameters in the same operation.

- Specify the `logGroupName` parameter to cause log events ingested into that log group to be encrypted with that key. Only the log events ingested after the key is associated are encrypted with that key.

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

  Associating a key with a log group does not cause the results of queries of that log group to be encrypted with that key. To have query results encrypted with a AWS KMS key, you must use an `AssociateKmsKey` operation with the `resourceIdentifier` parameter that specifies a `query-result` resource.
- Specify the `resourceIdentifier` parameter with a `query-result` resource, to use that key to encrypt the stored results of all future StartQuery operations in the account. The response from a GetQueryResults operation will still return the query results in plain text.

  Even if you have not associated a key with your query results, the query results are encrypted when stored, using the default CloudWatch Logs method.

  If you run a query from a monitoring account that queries logs in a source account, the query results key from the monitoring account, if any, is used.

**Important**

If you delete the key that is used to encrypt log events or log group query results, then all the associated stored log events or query results that were encrypted with that key will be unencryptable and unusable.

**Note**

CloudWatch Logs supports only symmetric KMS keys. Do not associate an asymmetric KMS key with your log group or query results. For more information, see Using Symmetric and Asymmetric Keys.

It can take up to 5 minutes for this operation to take effect.

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

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### kmsKeyId

The Amazon Resource Name (ARN) of the KMS key to use when encrypting log data. This must be a symmetric KMS key. For more information, see Amazon Resource Names and Using Symmetric and Asymmetric Keys.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### logGroupName

The name of the log group.

In your `AssociateKmsKey` operation, you must specify either the `resourceIdentifier` parameter or the `logGroup` parameter, but you can't specify both.

Type: String

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

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

Required: No

### resourceIdentifier

Specifies the target for this operation. You must specify one of the following:

- Specify the following ARN to have future GetQueryResults operations in this account encrypt the results with the specified AWS KMS key. Replace *REGION* and *ACCOUNT_ID* with your Region and account ID.

  `arn:aws:logs:`*`REGION`*`:`*`ACCOUNT_ID`*`:query-result:*`
- Specify the ARN of a log group to have CloudWatch Logs use the AWS KMS key to encrypt log events that are ingested and stored by that log group. The log group ARN must be in the following format. Replace *REGION* and *ACCOUNT_ID* with your Region and account ID.

  `arn:aws:logs:`*`REGION`*`:`*`ACCOUNT_ID`*`:log-group:`*`LOG_GROUP_NAME`*

In your `AssociateKmsKey` operation, you must specify either the `resourceIdentifier` parameter or the `logGroup` parameter, but you can't specify both.

Type: String

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

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

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## Examples

### To associate a log group with aKMS key

The following example associates the specified log group with the specified KMS key.

**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>
```

## To associate all future query results in this account with aKMS key

The following example associates all future CloudWatch Logs Insights query results with the specified KMS key.

### 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
```

```
{
  "resourceIdentifier": "arn:aws:logs:us-east-1:123456789012:query-result:*",
  "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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# AssociateSourceToS3TableIntegration

Associates a data source with an S3 Table Integration for query access in the 'logs' namespace. This enables querying log data using analytics engines that support Iceberg such as Amazon Athena, Amazon Redshift, and Apache Spark.

## Request Syntax

```
{
   "dataSource": {
      "name": "string",
      "type": "string"
   },
   "integrationArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**dataSource**

The data source to associate with the S3 Table Integration. Contains the name and type of the data source.

Type: DataSource object

Required: Yes

**integrationArn**

The Amazon Resource Name (ARN) of the S3 Table Integration to associate the data source with.

Type: String

Required: Yes

## Response Syntax

```
{
   "identifier": "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.

**identifier**

The unique identifier for the association between the data source and S3 Table Integration.

Type: String

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

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# 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.

The request accepts the following data in JSON format.

**taskId**

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 Error Types.

**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

# Examples

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

# CancelImportTask

Cancels an active import task and stops importing data from the CloudTrail Lake Event Data Store.

## Request Syntax

```
{
   "importId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**importId**

The ID of the import task to cancel.

Type: String

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

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

Required: Yes

## Response Syntax

```
{
   "creationTime": number,
   "importId": "string",
   "importStatistics": {
      "bytesImported": number
   },
   "importStatus": "string",
   "lastUpdatedTime": 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.

**creationTime**

The timestamp when the import task was created, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

**importId**

The ID of the cancelled import task.

Type: String

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

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

**importStatistics**

Statistics about the import progress at the time of cancellation.

Type: ImportStatistics object

**importStatus**

The final status of the import task. This will be set to CANCELLED.

Type: String

Valid Values: `IN_PROGRESS | CANCELLED | COMPLETED | FAILED`

**lastUpdatedTime**

The timestamp when the import task was cancelled, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

## Examples

### To cancel an import task

The following example cancels an active import task and returns the final status.

**Sample Request**

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

```
          X-Amz-Target: Logs_20140328.CancelImportTask
          {
          "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890"
          }
```

### Sample Response

```
HTTP/1.1 200 OK
          {
          "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
          "importStatistics": {
          "bytesImported": 524288
          },
          "importStatus": "CANCELLED",
          "creationTime": 1641168000000,
          "lastUpdatedTime": 1641175200000
          }
```

## See Also

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

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

# CreateDelivery

Creates a *delivery*. A delivery is a connection between a logical *delivery source* and a logical *delivery destination* that you have already created.

Only some AWS services support being configured as a delivery source using this operation. These services are listed as **Supported [V2 Permissions]** in the table at Enabling logging from AWS services.

A delivery destination can represent a log group in CloudWatch Logs, an Amazon S3 bucket, a delivery stream in Firehose, or X-Ray.

To configure logs delivery between a supported AWS service and a destination, you must do the following:

- Create a delivery source, which is a logical object that represents the resource that is actually sending the logs. For more information, see PutDeliverySource.
- Create a *delivery destination*, which is a logical object that represents the actual delivery destination. For more information, see PutDeliveryDestination.
- If you are delivering logs cross-account, you must use PutDeliveryDestinationPolicy in the destination account to assign an IAM policy to the destination. This policy allows delivery to that destination.
- Use `CreateDelivery` to create a *delivery* by pairing exactly one delivery source and one delivery destination.

You can configure a single delivery source to send logs to multiple destinations by creating multiple deliveries. You can also create multiple deliveries to configure multiple delivery sources to send logs to the same delivery destination.

To update an existing delivery configuration, use UpdateDeliveryConfiguration.

## Request Syntax

```
{
   "deliveryDestinationArn": "string",
   "deliverySourceName": "string",
   "fieldDelimiter": "string",
   "recordFields": [ "string" ],
```

```
   "s3DeliveryConfiguration": {
      "enableHiveCompatiblePath": boolean,
      "suffixPath": "string"
   },
   "tags": {
      "string" : "string"
   }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**deliveryDestinationArn**

The ARN of the delivery destination to use for this delivery.

Type: String

Required: Yes

**deliverySourceName**

The name of the delivery source to use for this delivery.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: Yes

**fieldDelimiter**

The field delimiter to use between record fields when the final output format of a delivery is in `Plain`, `W3C`, or `Raw` format.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 5.

Required: No

**recordFields**

The list of record fields to be delivered to the destination, in order. If the delivery's log source has mandatory fields, they must be included in this list.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 128 items.

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

Required: No

**s3DeliveryConfiguration**

This structure contains parameters that are valid only when the delivery's delivery destination is an S3 bucket.

Type: S3DeliveryConfiguration object

Required: No

**tags**

An optional list of key-value pairs to associate with the resource.

For more information about tagging, see Tagging AWS resources

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## Response Syntax

```
{
```

```
   "delivery": {
      "arn": "string",
      "deliveryDestinationArn": "string",
      "deliveryDestinationType": "string",
      "deliverySourceName": "string",
      "fieldDelimiter": "string",
      "id": "string",
      "recordFields": [ "string" ],
      "s3DeliveryConfiguration": {
         "enableHiveCompatiblePath": boolean,
         "suffixPath": "string"
      },
      "tags": {
         "string" : "string"
      }
   }
}
```

## Response Elements

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

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

**delivery**

A structure that contains information about the delivery that you just created.

Type: Delivery object

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# CreateExportTask

Creates an export task so that you can efficiently export data from a log group to an Amazon S3 bucket. When you perform a `CreateExportTask` operation, you must use credentials that have permission to write to the S3 bucket that you specify as the destination.

Exporting log data to S3 buckets that are encrypted by AWS KMS is supported. Exporting log data to Amazon S3 buckets that have S3 Object Lock enabled with a retention period is also supported.

Exporting to S3 buckets that are encrypted with AES-256 is supported.

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 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.

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

**Note**

We recommend that you don't regularly export to Amazon S3 as a way to continuously archive your logs. For that use case, we instead recommend that you use subscriptions. For more information about subscriptions, see Real-time processing of log data with subscriptions.

**Note**

Time-based sorting on chunks of log data inside an exported file is not guaranteed. You can sort the exported log field data by using Linux utilities.

## 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.

The request accepts the following data in JSON format.

**destination**

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**

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

The length of this parameter must comply with the S3 object key name length limits. The object key name is a sequence of Unicode characters with UTF-8 encoding, and can be up to 1,024 bytes.

Type: String

Required: No

**from**

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 timestamp earlier than this time are not exported.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

**logGroupName**

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**

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**

The name of the export task.

Type: String

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

Required: No

**to**

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 timestamp later than this time are not exported.

You must specify a time that is not earlier than when this log group was created.

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**

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 Error Types.

**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 concurrent 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

# Examples

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

# CreateImportTask

Starts an import from a data source to CloudWatch Log and creates a managed log group as the destination for the imported data. Currently, CloudTrail Event Data Store is the only supported data source.

The import task must satisfy the following constraints:

- The specified source must be in an ACTIVE state.
- The API caller must have permissions to access the data in the provided source and to perform iam:PassRole on the provided import role which has the same permissions, as described below.
- The provided IAM role must trust the "cloudtrail.amazonaws.com" principal and have the following permissions:
  - cloudtrail:GetEventDataStoreData
  - logs:CreateLogGroup
  - logs:CreateLogStream
  - logs:PutResourcePolicy
  - (If source has an associated AWS KMS Key) kms:Decrypt
  - (If source has an associated AWS KMS Key) kms:GenerateDataKey

  Example IAM policy for provided import role:

```
[ { "Effect": "Allow", "Action": "iam:PassRole", "Resource":
"arn:aws:iam::123456789012:role/apiCallerCredentials",
"Condition": { "StringLike": { "iam:AssociatedResourceARN":
"arn:aws:logs:us-east-1:123456789012:log-group:aws/cloudtrail/
f1d45bff-d0e3-4868-b5d9-2eb678aa32fb:*" } } }, { "Effect": "Allow",
"Action": [ "cloudtrail:GetEventDataStoreData" ], "Resource":
[ "arn:aws:cloudtrail:us-east-1:123456789012:eventdatastore/
f1d45bff-d0e3-4868-b5d9-2eb678aa32fb" ] }, { "Effect": "Allow",
"Action": [ "logs:CreateImportTask", "logs:CreateLogGroup",
"logs:CreateLogStream", "logs:PutResourcePolicy" ], "Resource":
[ "arn:aws:logs:us-east-1:123456789012:log-group:/aws/cloudtrail/
*" ] }, { "Effect": "Allow", "Action": [ "kms:Decrypt",
"kms:GenerateDataKey" ], "Resource": [ "arn:aws:kms:us-
east-1:123456789012:key/12345678-1234-1234-1234-123456789012" ] } ]
```

- If the import source has a customer managed key, the "cloudtrail.amazonaws.com" principal needs permissions to perform kms:Decrypt and kms:GenerateDataKey.
- There can be no more than 3 active imports per account at a given time.
- The startEventTime must be less than or equal to endEventTime.
- The data being imported must be within the specified source's retention period.

## Request Syntax

```
{
   "importFilter": {
      "endEventTime": number,
      "startEventTime": number
   },
   "importRoleArn": "string",
   "importSourceArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**importFilter**

Optional filters to constrain the import by CloudTrail event time. Times are specified in Unix timestamp milliseconds. The range of data being imported must be within the specified source's retention period.

Type: ImportFilter object

Required: No

**importRoleArn**

The ARN of the IAM role that grants CloudWatch Logs permission to import from the CloudTrail Lake Event Data Store.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**importSourceArn**

The ARN of the source to import from.

Type: String

Required: Yes

## Response Syntax

```
{
   "creationTime": number,
   "importDestinationArn": "string",
   "importId": "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.

**creationTime**

The timestamp when the import task was created, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

**importDestinationArn**

The ARN of the CloudWatch Logs log group created as the destination for the imported events.

Type: String

**importId**

A unique identifier for the import task.

Type: String

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

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

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## Examples

### To create an import task from CloudTrail Lake to CloudWatch Logs

The following example creates an import task with time-based filters.

#### Sample Request

```
POST / HTTP/1.1
          Host: logs.<region>.<domain>
          X-Amz-Target: Logs_20140328.CreateImportTask
          {
          "importSourceArn": "arn:aws:cloudtrail:us-east-1:123456789012:eventdatastore/
f1d45bff-d0e3-4868-b5d9-2eb678aa32fb",
          "importRoleArn": "arn:aws:iam::123456789012:role/CloudWatchLogsImportRole",
          "importFilter": {
          "startEventTime": 1640995200000,
          "endEventTime": 1641081600000
          }
          }
```

#### Sample Response

```
HTTP/1.1 200 OK
          {
          "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
          "importDestinationArn": "arn:aws:logs:us-east-1:123456789012:log-group:aws/
cloudtrail/f1d45bff-d0e3-4868-b5d9-2eb678aa32fb",
          "creationTime": 1641168000000
          }
```

## See Also

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

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

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

# CreateLogAnomalyDetector

Creates an *anomaly detector* that regularly scans one or more log groups and look for patterns and anomalies in the logs.

An anomaly detector can help surface issues by automatically discovering anomalies in your log event traffic. An anomaly detector uses machine learning algorithms to scan log events and find *patterns*. A pattern is a shared text structure that recurs among your log fields. Patterns provide a useful tool for analyzing large sets of logs because a large number of log events can often be compressed into a few patterns.

The anomaly detector uses pattern recognition to find `anomalies`, which are unusual log events. It uses the `evaluationFrequency` to compare current log events and patterns with trained baselines.

Fields within a pattern are called *tokens*. Fields that vary within a pattern, such as a request ID or timestamp, are referred to as *dynamic tokens* and represented by `<*>`.

The following is an example of a pattern:

```
[INFO] Request time: <*> ms
```

This pattern represents log events like `[INFO] Request time: 327 ms` and other similar log events that differ only by the number, in this csse 327. When the pattern is displayed, the different numbers are replaced by `<*>`

> **Note**
>
> Any parts of log events that are masked as sensitive data are not scanned for anomalies. For more information about masking sensitive data, see Help protect sensitive log data with masking.

## Request Syntax

```
{
   "anomalyVisibilityTime": number,
   "detectorName": "string",
   "evaluationFrequency": "string",
   "filterPattern": "string",
```

```
   "kmsKeyId": "string",
   "logGroupArnList": [ "string" ],
   "tags": {
      "string" : "string"
   }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**anomalyVisibilityTime**

The number of days to have visibility on an anomaly. After this time period has elapsed for an anomaly, it will be automatically baselined and the anomaly detector will treat new occurrences of a similar anomaly as normal. Therefore, if you do not correct the cause of an anomaly during the time period specified in `anomalyVisibilityTime`, it will be considered normal going forward and will not be detected as an anomaly.

Type: Long

Valid Range: Minimum value of 7. Maximum value of 90.

Required: No

**detectorName**

A name for this anomaly detector.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**evaluationFrequency**

Specifies how often the anomaly detector is to run and look for anomalies. Set this value according to the frequency that the log group receives new logs. For example, if the log group receives new log events every 10 minutes, then 15 minutes might be a good setting for `evaluationFrequency` .

Type: String

Valid Values: `ONE_MIN | FIVE_MIN | TEN_MIN | FIFTEEN_MIN | THIRTY_MIN | ONE_HOUR`

Required: No

**filterPattern**

You can use this parameter to limit the anomaly detection model to examine only log events that match the pattern you specify here. For more information, see Filter and Pattern Syntax.

Type: String

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

Required: No

**kmsKeyId**

Optionally assigns a AWS KMS key to secure this anomaly detector and its findings. If a key is assigned, the anomalies found and the model used by this detector are encrypted at rest with the key. If a key is assigned to an anomaly detector, a user must have permissions for both this key and for the anomaly detector to retrieve information about the anomalies that it finds.

Make sure the value provided is a valid AWS KMS key ARN. For more information about using a AWS KMS key and to see the required IAM policy, see Use a AWS KMS key with an anomaly detector.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-]*:kms:[-a-z0-9]*:[0-9]*:key/[-a-z0-9]*$`

Required: No

**logGroupArnList**

An array containing the ARN of the log group that this anomaly detector will watch. You can specify only one log group ARN.

Type: Array of strings

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

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

Required: Yes

**tags**

An optional list of key-value pairs to associate with the resource.

For more information about tagging, see Tagging AWS resources

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## Response Syntax

```
{
   "anomalyDetectorArn": "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.

**anomalyDetectorArn**

The ARN of the log anomaly detector that you just created.

Type: String

Length Constraints: Minimum length of 1.

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

## Errors

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

**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 concurrent 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

## See Also

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

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

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

# CreateLogGroup

Creates a log group with the specified name. You can create up to 1,000,000 log groups per Region 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), '.' (period), and '#' (number sign)
- Log group names can't start with the string `aws/`

When you create a log group, by default the log events in the log group do not expire. To set a retention policy so that events expire and are deleted after a specified time, use PutRetentionPolicy.

If you associate an AWS KMS key with the log group, ingested data is encrypted using the KMS key. This association is stored as long as the data encrypted with the KMS key is still within CloudWatch Logs. This enables CloudWatch Logs to decrypt this data whenever it is requested.

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

> **Important**
>
> CloudWatch Logs supports only symmetric KMS keys. Do not associate an asymmetric KMS key with your log group. For more information, see Using Symmetric and Asymmetric Keys.

## Request Syntax

```
{
   "deletionProtectionEnabled": boolean,
   "kmsKeyId": "string",
   "logGroupClass": "string",
   "logGroupName": "string",
   "tags": {
```

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

## Request Parameters

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

The request accepts the following data in JSON format.

**deletionProtectionEnabled**

Use this parameter to enable deletion protection for the new log group. When enabled on a log group, deletion protection blocks all deletion operations until it is explicitly disabled. By default log groups are created without deletion protection enabled.

Type: Boolean

Required: No

**kmsKeyId**

The Amazon Resource Name (ARN) of the KMS key to use when encrypting log data. For more information, see Amazon Resource Names.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**logGroupClass**

Use this parameter to specify the log group class for this log group. There are three classes:

- The `Standard` log class supports all CloudWatch Logs features.
- The `Infrequent Access` log class supports a subset of CloudWatch Logs features and incurs lower costs.
- Use the `Delivery` log class only for delivering AWS Lambda logs to store in Amazon S3 or Amazon Data Firehose. Log events in log groups in the Delivery class are kept in CloudWatch Logs for only one day. This log class doesn't offer rich CloudWatch Logs capabilities such as CloudWatch Logs Insights queries.

If you omit this parameter, the default of `STANDARD` is used.

> **Important**
>
> The value of `logGroupClass` can't be changed after a log group is created.

For details about the features supported by each class, see Log classes

Type: String

Valid Values: `STANDARD | INFREQUENT_ACCESS | DELIVERY`

Required: No

**logGroupName**

A name for the log group.

Type: String

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

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

Required: Yes

**tags**

The key-value pairs to use for the tags.

You can grant users access to certain log groups while preventing them from accessing other log groups. To do so, tag your groups and use IAM policies that refer to those tags. To assign tags when you create a log group, you must have either the `logs:TagResource` or `logs:TagLogGroup` permission. For more information about tagging, see Tagging AWS resources. For more information about using tags to control access, see Controlling access to Amazon Web Services resources using tags.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: 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 Error Types.

**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 concurrent 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

# Examples

## 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 V2
- AWS SDK for .NET V4

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

# CreateLogStream

Creates a log stream for the specified log group. A log stream is a sequence of log events that originate from a single source, such as an application instance or a resource that is being monitored.

There is no limit on the number of log streams that you can create for a log group. There is a limit of 50 TPS on `CreateLogStream` operations, after which transactions are throttled.

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.
- Don't use ':' (colon) or '*' (asterisk) characters.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupName**

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

**logStreamName**

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 Error Types.

**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

# Examples

## 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 V2
- AWS SDK for .NET V4
- AWS SDK for C++

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

# CreateLookupTable

Creates a lookup table by uploading CSV data or from CloudWatch Logs query results. You can use lookup tables to enrich log data in CloudWatch Logs queries with reference data such as user details, application names, or error descriptions.

The table name must be unique within your account and Region. You must specify either `tableBody` or `queryId`, but not both. If you use `tableBody`, the CSV content must include a header row with column names, use UTF-8 encoding, and not exceed 10 MB.

## Request Syntax

```
{
   "description": "string",
   "kmsKeyId": "string",
   "lookupTableName": "string",
   "queryId": "string",
   "tableBody": "string",
   "tags": {
      "string" : "string"
   }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**description**

A description of the lookup table. The description can be up to 1024 characters long.

Type: String

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

Required: No

**kmsKeyId**

The ARN of the AWS KMS key to use to encrypt the lookup table data. If you don't specify a key, the data is encrypted with an AWS-owned key.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**lookupTableName**

The name of the lookup table. The name must be unique within your account and Region. The name can contain only alphanumeric characters and underscores, and can be up to 256 characters long.

Type: String

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

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

Required: Yes

**queryId**

The ID of a completed or cancelled CloudWatch Logs query whose results populate the lookup table. A cancelled query populates the table with the partial results that were available when the query was stopped.

You must specify either `tableBody` or `queryId`, but not both.

Type: String

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

Required: No

**tableBody**

The CSV content of the lookup table. The first row must be a header row with column names. The content must use UTF-8 encoding and not exceed 10 MB.

You must specify either `tableBody` or `queryId`, but not both.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10485760.

Required: No

**tags**

A list of key-value pairs to associate with the lookup table. You can associate as many as 50 tags with a lookup table. Tags can help you organize and categorize your resources.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## Response Syntax

```
{
   "createdAt": number,
   "lookupTableArn": "string"
}
```

## Response Elements

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

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

**createdAt**

The time when the lookup table was created, expressed as the number of milliseconds after `Jan 1, 1970 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

**lookupTableArn**

The ARN of the lookup table that was created.

Type: String

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**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

**ResourceAlreadyExistsException**

The specified resource already exists.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# CreateScheduledQuery

Creates a scheduled query that runs CloudWatch Logs Insights queries at regular intervals. Scheduled queries enable proactive monitoring by automatically executing queries to detect patterns and anomalies in your log data. Query results can be delivered to Amazon S3 for analysis or further processing.

## Request Syntax

```
{
   "description": "string",
   "destinationConfiguration": {
      "lookupTableConfiguration": {
         "description": "string",
         "kmsKeyId": "string",
         "roleArn": "string",
         "tableName": "string",
         "tags": {
            "string" : "string"
         }
      },
      "s3Configuration": {
         "destinationIdentifier": "string",
         "kmsKeyId": "string",
         "ownerAccountId": "string",
         "roleArn": "string"
      }
   },
   "endTimeOffset": number,
   "executionRoleArn": "string",
   "logGroupIdentifiers": [ "string" ],
   "name": "string",
   "queryLanguage": "string",
   "queryString": "string",
   "scheduleEndTime": number,
   "scheduleExpression": "string",
   "scheduleStartTime": number,
   "startTimeOffset": number,
   "state": "string",
   "tags": {
      "string" : "string"
   },
```

```
    "timezone": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**description**

An optional description for the scheduled query to help identify its purpose and functionality.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**destinationConfiguration**

Configuration for where to deliver query results. Supports Amazon S3 destinations for storing query output and lookup table destinations for automatically refreshing lookup tables with query results. You can configure one or both destination types.

Type: DestinationConfiguration object

Required: No

**endTimeOffset**

The time offset in seconds that defines the end of the lookback period for the query. Together with `startTimeOffset`, this determines the time window relative to the execution time over which the query runs.

Type: Long

Required: No

**executionRoleArn**

The ARN of the IAM role that grants permissions to execute the query and deliver results to the specified destination. The role must have permissions to read from the specified log groups and write to the destination.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**logGroupIdentifiers**

An array of log group names or ARNs to query. You can specify between 1 and 50 log groups. Log groups can be identified by name or full ARN.

Type: Array of strings

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

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

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

Required: No

**name**

The name of the scheduled query. The name must be unique within your account and region. Length must be between 1 and 300 characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

Required: Yes

**queryLanguage**

The query language to use for the scheduled query. Valid values are `CWLI`, `PPL`, and `SQL`.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: Yes

**queryString**

The query string to execute. This is the same query syntax used in CloudWatch Logs Insights. Maximum length is 10,000 characters.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10000.

Required: Yes

**scheduleEndTime**

The end time for the scheduled query in Unix epoch format. The query will stop executing after this time.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**scheduleExpression**

A cron expression that defines when the scheduled query runs. The expression uses standard cron syntax and supports minute-level precision. Maximum length is 256 characters.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

**scheduleStartTime**

The start time for the scheduled query in Unix epoch format. The query will not execute before this time.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**startTimeOffset**

The time offset in seconds that defines the lookback period for the query. This determines how far back in time the query searches from the execution time.

Type: Long

Required: No

**state**

The initial state of the scheduled query. Valid values are `ENABLED` and `DISABLED`. Default is `ENABLED`.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

**tags**

Key-value pairs to associate with the scheduled query for resource management and cost allocation.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

**timezone**

The timezone for evaluating the schedule expression. This determines when the scheduled query executes relative to the specified timezone.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## Response Syntax

```
{
```

```
    "scheduledQueryArn": "string",
    "state": "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.

**scheduledQueryArn**

The ARN of the created scheduled query.

Type: String

**state**

The current state of the scheduled query.

Type: String

Valid Values: `ENABLED | DISABLED`

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# DeleteAccountPolicy

Deletes a CloudWatch Logs account policy. This stops the account-wide policy from applying to log groups or data sources in the account. If you delete a data protection policy or subscription filter policy, any log-group level policies of those types remain in effect. This operation supports deletion of data source-based field index policies, including facet configurations, in addition to log group-based policies.

To use this operation, you must be signed on with the correct permissions depending on the type of policy that you are deleting.

- To delete a data protection policy, you must have the `logs:DeleteDataProtectionPolicy` and `logs:DeleteAccountPolicy` permissions.
- To delete a subscription filter policy, you must have the `logs:DeleteSubscriptionFilter` and `logs:DeleteAccountPolicy` permissions.
- To delete a transformer policy, you must have the `logs:DeleteTransformer` and `logs:DeleteAccountPolicy` permissions.
- To delete a field index policy, you must have the `logs:DeleteIndexPolicy` and `logs:DeleteAccountPolicy` permissions.

  If you delete a field index policy that included facet configurations, those facets will no longer be available for interactive exploration in the CloudWatch Logs Insights console. However, facet data is retained for up to 30 days.

If you delete a field index policy, the indexing of the log events that happened before you deleted the policy will still be used for up to 30 days to improve CloudWatch Logs Insights queries.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**policyName**

The name of the policy to delete.

Type: String

Required: Yes

**policyType**

The type of policy to delete.

Type: String

Valid Values: `DATA_PROTECTION_POLICY | SUBSCRIPTION_FILTER_POLICY | FIELD_INDEX_POLICY | TRANSFORMER_POLICY | METRIC_EXTRACTION_POLICY`

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# DeleteDataProtectionPolicy

Deletes the data protection policy from the specified log group.

For more information about data protection policies, see PutDataProtectionPolicy.

## Request Syntax

```
{
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

The name or ARN of the log group that you want to delete the data protection policy for.

Type: String

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

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

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# DeleteDelivery

Deletes a *delivery*. A delivery is a connection between a logical *delivery source* and a logical *delivery destination*. Deleting a delivery only deletes the connection between the delivery source and delivery destination. It does not delete the delivery destination or the delivery source.

## Request Syntax

```
{
   "id": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**id**

The unique ID of the delivery to delete. You can find the ID of a delivery with the DescribeDeliveries operation.

Type: String

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

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

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 Error Types.

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# DeleteDeliveryDestination

Deletes a *delivery destination*. A delivery is a connection between a logical *delivery source* and a logical *delivery destination*.

You can't delete a delivery destination if any current deliveries are associated with it. To find whether any deliveries are associated with this delivery destination, use the DescribeDeliveries operation and check the `deliveryDestinationArn` field in the results.

## Request Syntax

```
{
   "name": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**name**

The name of the delivery destination that you want to delete. You can find a list of delivery destination names by using the DescribeDeliveryDestinations operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

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 Error Types.

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# DeleteDeliveryDestinationPolicy

Deletes a delivery destination policy. For more information about these policies, see PutDeliveryDestinationPolicy.

## Request Syntax

```
{
   "deliveryDestinationName": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**deliveryDestinationName**

The name of the delivery destination that you want to delete the policy for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

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 Error Types.

**ConflictException**

This operation attempted to create a resource that 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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# DeleteDeliverySource

Deletes a *delivery source*. A delivery is a connection between a logical *delivery source* and a logical *delivery destination*.

You can't delete a delivery source if any current deliveries are associated with it. To find whether any deliveries are associated with this delivery source, use the DescribeDeliveries operation and check the `deliverySourceName` field in the results.

## Request Syntax

```
{
   "name": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**name**

The name of the delivery source that you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

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 Error Types.

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# 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.

The request accepts the following data in JSON format.

**destinationName**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

# Examples

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

# DeleteIndexPolicy

Deletes a log-group level field index policy that was applied to a single log group. The indexing of the log events that happened before you delete the policy will still be used for as many as 30 days to improve CloudWatch Logs Insights queries.

If the deleted policy included facet configurations, those facets will no longer be available for interactive exploration in the CloudWatch Logs Insights console for this log group. However, facet data is retained for up to 30 days.

You can't use this operation to delete an account-level index policy. Instead, use DeleteAccountPolicy.

If you delete a log-group level field index policy and there is an account-level field index policy, in a few minutes the log group begins using that account-wide policy to index new incoming log events. This operation only affects log group-level policies, including any facet configurations, and preserves any data source-based account policies that may apply to the log group.

## Request Syntax

```
{
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### logGroupIdentifier

The log group to delete the index policy for. You can specify either the name or the ARN of the log group.

Type: String

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

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

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 Error Types.

**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 concurrent 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

## See Also

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

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

# DeleteIntegration

Deletes the integration between CloudWatch Logs and OpenSearch Service. If your integration has active vended logs dashboards, you must specify `true` for the `force` parameter, otherwise the operation will fail. If you delete the integration by setting `force` to `true`, all your vended logs dashboards powered by OpenSearch Service will be deleted and the data that was on them will no longer be accessible.

## Request Syntax

```
{
   "force": boolean,
   "integrationName": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**force**

Specify `true` to force the deletion of the integration even if vended logs dashboards currently exist.

The default is `false`.

Type: Boolean

Required: No

**integrationName**

The name of the integration to delete. To find the name of your integration, use ListIntegrations.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

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 Error Types.

**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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# DeleteLogAnomalyDetector

Deletes the specified CloudWatch Logs anomaly detector.

## Request Syntax

```
{
   "anomalyDetectorArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**anomalyDetectorArn**

The ARN of the anomaly detector to delete. You can find the ARNs of log anomaly detectors in your account by using the ListLogAnomalyDetectors operation.

Type: String

Length Constraints: Minimum length of 1.

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

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# 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.

The request accepts the following data in JSON format.

**logGroupName**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

# Examples

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

# 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.

The request accepts the following data in JSON format.

**logGroupName**

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

**logStreamName**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## Examples

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

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

# DeleteLookupTable

Deletes a lookup table permanently. This operation cannot be undone.

Queries that reference a deleted table will return an error. Before deleting a lookup table, review any saved queries or dashboards that may reference it.

## Request Syntax

```
{
   "lookupTableArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**lookupTableArn**

The ARN of the lookup table to delete.

Type: String

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

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

## See Also

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

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

# 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.

The request accepts the following data in JSON format.

**filterName**

The name of the metric filter.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**logGroupName**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## Examples

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

# DeleteQueryDefinition

Deletes a saved CloudWatch Logs Insights query definition. A query definition contains details about a saved CloudWatch Logs Insights query.

Each `DeleteQueryDefinition` operation can delete one query definition.

You must have the `logs:DeleteQueryDefinition` permission to be able to perform this operation.

## Request Syntax

```
{
   "queryDefinitionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**queryDefinitionId**

The ID of the query definition that you want to delete. You can use DescribeQueryDefinitions to retrieve the IDs of your saved query definitions.

Type: String

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

Required: Yes

## Response Syntax

```
{
   "success": 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.

**success**

A value of TRUE indicates that the operation succeeded. FALSE indicates that the operation failed.

Type: Boolean

## Errors

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

**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

## Examples

### Example

This example deletes a query definition.

### 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.DeleteQueryDefinition
{
   "queryDefinitionId": "123456ab-12ab-123a-789e-1234567890ab"
}
```

### Sample Response

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

## See Also

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

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

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

# 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

```
{
   "expectedRevisionId": "string",
   "policyName": "string",
   "resourceArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**expectedRevisionId**

The expected revision ID of the resource policy. Required when deleting a resource-scoped policy to prevent concurrent modifications.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**policyName**

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

Type: String

Required: No

**resourceArn**

The ARN of the CloudWatch Logs resource for which the resource policy needs to be deleted

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

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

# 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.

The request accepts the following data in JSON format.

**logGroupName**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

# Examples

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

# DeleteScheduledQuery

Deletes a scheduled query and stops all future executions. This operation also removes any configured actions and associated resources.

## Request Syntax

```
{
   "identifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**identifier**

The ARN or name of the scheduled query to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# 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.

The request accepts the following data in JSON format.

**filterName**

The name of the subscription filter.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**logGroupName**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## Examples

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

# DeleteSyslogConfiguration

Deletes a syslog configuration for a log group. After deletion, syslog data is no longer ingested through the specified VPC endpoint.

## Request Syntax

```
{
   "logGroupIdentifier": "string",
   "vpcEndpointId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

The name or ARN of the log group to remove the syslog configuration from.

Type: String

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

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

Required: Yes

**vpcEndpointId**

The ID of the VPC endpoint associated with the syslog configuration to delete.

Type: String

Pattern: `^vpce-[0-9a-f]{1,64}$`

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

# Examples

## To delete a syslog configuration

The following example deletes the syslog configuration for the specified log group and VPC endpoint.

### 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.DeleteSyslogConfiguration
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:my-syslog-
group",
  "vpcEndpointId": "vpce-0123456789abcdef0"
}
```

### 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 V2

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

# DeleteTransformer

Deletes the log transformer for the specified log group. As soon as you do this, the transformation of incoming log events according to that transformer stops. If this account has an account-level transformer that applies to this log group, the log group begins using that account-level transformer when this log-group level transformer is deleted.

After you delete a transformer, be sure to edit any metric filters or subscription filters that relied on the transformed versions of the log events.

## Request Syntax

```
{
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

Specify either the name or ARN of the log group to delete the transformer for. If the log group is in a source account and you are using a monitoring account, you must use the log group ARN.

Type: String

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

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

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 Error Types.

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

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

# DescribeAccountPolicies

Returns a list of all CloudWatch Logs account policies in the account.

To use this operation, you must be signed on with the correct permissions depending on the type of policy that you are retrieving information for.

- To see data protection policies, you must have the `logs:GetDataProtectionPolicy` and `logs:DescribeAccountPolicies` permissions.
- To see subscription filter policies, you must have the `logs:DescribeSubscriptionFilters` and `logs:DescribeAccountPolicies` permissions.
- To see transformer policies, you must have the `logs:GetTransformer` and `logs:DescribeAccountPolicies` permissions.
- To see field index policies, you must have the `logs:DescribeIndexPolicies` and `logs:DescribeAccountPolicies` permissions.

## Request Syntax

```
{
   "accountIdentifiers": [ "string" ],
   "nextToken": "string",
   "policyName": "string",
   "policyType": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**accountIdentifiers**

If you are using an account that is set up as a monitoring account for CloudWatch unified cross-account observability, you can use this to specify the account ID of a source account. If you do, the operation returns the account policy for the specified account. Currently, you can specify only one account ID in this parameter.

If you omit this parameter, only the policy in the current account is returned.

Type: Array of strings

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

Length Constraints: Fixed length of 12.

Pattern: `^\d{12}$`

Required: No

**nextToken**

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

**policyName**

Use this parameter to limit the returned policies to only the policy with the name that you specify.

Type: String

Required: No

**policyType**

Use this parameter to limit the returned policies to only the policies that match the policy type that you specify.

Type: String

Valid Values: `DATA_PROTECTION_POLICY | SUBSCRIPTION_FILTER_POLICY | FIELD_INDEX_POLICY | TRANSFORMER_POLICY | METRIC_EXTRACTION_POLICY`

Required: Yes

## Response Syntax

```
{
```

```
   "accountPolicies": [
      {
         "accountId": "string",
         "lastUpdatedTime": number,
         "policyDocument": "string",
         "policyName": "string",
         "policyType": "string",
         "scope": "string",
         "selectionCriteria": "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.

**accountPolicies**

An array of structures that contain information about the CloudWatch Logs account policies that match the specified filters.

Type: Array of AccountPolicy objects

**nextToken**

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.

## Errors

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

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# DescribeConfigurationTemplates

Use this operation to return the valid and default values that are used when creating delivery sources, delivery destinations, and deliveries. For more information about deliveries, see CreateDelivery.

## Request Syntax

```
{
   "deliveryDestinationTypes": [ "string" ],
   "limit": number,
   "logTypes": [ "string" ],
   "nextToken": "string",
   "resourceTypes": [ "string" ],
   "service": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**deliveryDestinationTypes**

Use this parameter to filter the response to include only the configuration templates that apply to the delivery destination types that you specify here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 4 items.

Valid Values: `S3 | CWL | FH | XRAY`

Required: No

**limit**

Use this parameter to limit the number of configuration templates that are returned in the response.

Type: Integer

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

Required: No

**logTypes**

Use this parameter to filter the response to include only the configuration templates that apply to the log types that you specify here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

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

Pattern: `[\w]*`

Required: No

**nextToken**

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

**resourceTypes**

Use this parameter to filter the response to include only the configuration templates that apply to the resource types that you specify here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

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

Pattern: `[\w-_]*`

Required: No

**service**

Use this parameter to filter the response to include only the configuration templates that apply to the AWS service that you specify here.

Type: String

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

Pattern: `[\w_-]*`

Required: No

## Response Syntax

```
{
   "configurationTemplates": [
      {
         "allowedActionForAllowVendedLogsDeliveryForResource": "string",
         "allowedFieldDelimiters": [ "string" ],
         "allowedFields": [
            {
               "mandatory": boolean,
               "name": "string"
            }
         ],
         "allowedOutputFormats": [ "string" ],
         "allowedSuffixPathFields": [ "string" ],
         "defaultDeliveryConfigValues": {
            "fieldDelimiter": "string",
            "recordFields": [ "string" ],
            "s3DeliveryConfiguration": {
               "enableHiveCompatiblePath": boolean,
               "suffixPath": "string"
            }
         },
         "deliveryDestinationType": "string",
         "deliverySourceConfiguration": [
            {
               "defaultValue": "string",
               "keyName": "string",
               "maxValue": number,
               "minValue": number,
               "supportedValues": [ "string" ],
               "valueType": "string"
            }
         ],
         "logType": "string",
```

```
         "resourceType": "string",
         "s3TablesIntegration": {
            "datasourceName": "string",
            "datasourceType": "string"
         },
         "service": "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.

**configurationTemplates**

An array of objects, where each object describes one configuration template that matches the filters that you specified in the request.

Type: Array of ConfigurationTemplate objects

**nextToken**

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 Error Types.

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# DescribeDeliveries

Retrieves a list of the deliveries that have been created in the account.

A *delivery* is a connection between a *delivery source* and a *delivery destination*.

A delivery source represents an AWS resource that sends logs to an logs delivery destination. The destination can be CloudWatch Logs, Amazon S3, Firehose or X-Ray. Only some AWS services support being configured as a delivery source. These services are listed in Enable logging from AWS services.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**limit**

Optionally specify the maximum number of deliveries to return in the response.

Type: Integer

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

Required: No

**nextToken**

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

```
{
   "deliveries": [
      {
         "arn": "string",
         "deliveryDestinationArn": "string",
         "deliveryDestinationType": "string",
         "deliverySourceName": "string",
         "fieldDelimiter": "string",
         "id": "string",
         "recordFields": [ "string" ],
         "s3DeliveryConfiguration": {
            "enableHiveCompatiblePath": boolean,
            "suffixPath": "string"
         },
         "tags": {
            "string" : "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.

**deliveries**

An array of structures. Each structure contains information about one delivery in the account.

Type: Array of Delivery objects

**nextToken**

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 Error Types.

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# DescribeDeliveryDestinations

Retrieves a list of the delivery destinations that have been created in the account.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**limit**

Optionally specify the maximum number of delivery destinations to return in the response.

Type: Integer

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

Required: No

**nextToken**

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

```
{
   "deliveryDestinations": [
      {
```

```
         "arn": "string",
         "deliveryDestinationConfiguration": {
            "destinationResourceArn": "string"
         },
         "deliveryDestinationType": "string",
         "name": "string",
         "outputFormat": "string",
         "tags": {
            "string" : "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.

**deliveryDestinations**

An array of structures. Each structure contains information about one delivery destination in the account.

Type: Array of DeliveryDestination objects

**nextToken**

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 Error Types.

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# DescribeDeliverySources

Retrieves a list of the delivery sources that have been created in the account.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**limit**

Optionally specify the maximum number of delivery sources to return in the response.

Type: Integer

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

Required: No

**nextToken**

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

```
{
   "deliverySources": [
```

```
      {
         "arn": "string",
         "deliverySourceConfiguration": {
            "string" : "string"
         },
         "logType": "string",
         "name": "string",
         "resourceArns": [ "string" ],
         "service": "string",
         "status": "string",
         "statusReason": "string",
         "tags": {
            "string" : "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.

**deliverySources**

An array of structures. Each structure contains information about one delivery source in the account.

Type: Array of DeliverySource objects

**nextToken**

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 Error Types.

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# 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.

The request accepts the following data in JSON format.

**DestinationNamePrefix**

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**

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

Type: Integer

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

Required: No

**nextToken**

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**

The destinations.

Type: Array of Destination objects

**nextToken**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

## Examples

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

# 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.

The request accepts the following data in JSON format.

**limit**

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**

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**

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**

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

The export tasks.

Type: Array of ExportTask objects

**nextToken**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

## Examples

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

- AWS SDK for Ruby V3

# DescribeFieldIndexes

Returns a list of field indexes discovered in log data. By default, the response includes the `DEFAULT`, `CUSTOM`, and `INACTIVE` index categories. To return indexes from other categories, use the `indexCategories` parameter.

For more information about field index policies, see PutIndexPolicy.

## Request Syntax

```
{
   "indexCategories": [ "string" ],
   "logGroupIdentifiers": [ "string" ],
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### indexCategories

The index categories to return. The following values are supported:

- `DEFAULT`: Fields that CloudWatch Logs indexes by default. Examples include `@logStream` and `@data_format`.
- `CUSTOM`: Fields that you added manually to the field index policy. CloudWatch Logs always indexes these fields. These fields count toward the quota of 20 fields for each log group.
- `AUTO`: Fields that CloudWatch Logs indexes automatically based on your query patterns and usage. These fields do not count toward the field index quota. CloudWatch Logs might update these fields based on changes in your query patterns. To keep a field indexed permanently, add it to an account-level or log-group level field index policy.
- `INACTIVE`: Fields that CloudWatch Logs indexed before but does not index now. This happens if you remove a field from the field index policy or if CloudWatch Logs automatically selects a different field based on your queries.

If you omit this parameter, the response includes the `DEFAULT`, `CUSTOM`, and `INACTIVE` categories.

For more information about automatically indexed fields and using the AUTO category, see Automatically indexed fields.

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: `DEFAULT | CUSTOM | AUTO | INACTIVE`

Required: No

**logGroupIdentifiers**

An array containing the names or ARNs of the log groups that you want to retrieve field indexes for.

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 2048.

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

Required: Yes

**nextToken**

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

```
{
   "fieldIndexes": [
      {
         "fieldIndexName": "string",
         "firstEventTime": number,
```

```
            "indexCategory": "string",
            "lastEventTime": number,
            "lastScanTime": number,
            "logGroupIdentifier": "string",
            "type": "string"
        }
    ],
    "nextToken": "string"
}
```

## Response Elements

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

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

**fieldIndexes**

An array containing the field index information.

Type: Array of FieldIndex objects

**nextToken**

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 Error Types.

**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 concurrent 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

## See Also

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

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

# DescribeImportTaskBatches

Gets detailed information about the individual batches within an import task, including their status and any error messages. For CloudTrail Event Data Store sources, a batch refers to a subset of stored events grouped by their eventTime.

## Request Syntax

```
{
   "batchImportStatus": [ "string" ],
   "importId": "string",
   "limit": number,
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**batchImportStatus**

Optional filter to list import batches by their status. Accepts multiple status values: IN_PROGRESS, CANCELLED, COMPLETED and FAILED.

Type: Array of strings

Valid Values: `IN_PROGRESS | CANCELLED | COMPLETED | FAILED`

Required: No

**importId**

The ID of the import task to get batch information for.

Type: String

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

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

Required: Yes

**limit**

The maximum number of import batches to return in the response. Default: 10

Type: Integer

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

Required: No

**nextToken**

The pagination token for the next set of results.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## Response Syntax

```
{
   "importBatches": [
      {
         "batchId": "string",
         "errorMessage": "string",
         "status": "string"
      }
   ],
   "importId": "string",
   "importSourceArn": "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.

**importBatches**

The list of import batches that match the request filters.

Type: Array of ImportBatch objects

**importId**

The ID of the import task.

Type: String

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

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

**importSourceArn**

The ARN of the source being imported from.

Type: String

**nextToken**

The token to use when requesting the next set of results. Not present if there are no additional results to retrieve.

Type: String

Length Constraints: Minimum length of 1.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

# Examples

## To describe import task batches

The following example retrieves batch-level details for an import task with status filtering.

### Sample Request

```
POST / HTTP/1.1
          Host: logs.<region>.<domain>
          X-Amz-Target: Logs_20140328.DescribeImportTaskBatches
          {
          "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
          "batchImportStatus": ["IN_PROGRESS", "COMPLETED"],
          "limit": 25,
          "nextToken": "eyJOZXh0VG9rZW4iOiJudWxsIiwiYm90b190cnVuY2F0ZV9hbW91bnQiOjF9"
          }
```

### Sample Response

```
HTTP/1.1 200 OK
          {
          "importSourceArn": "arn:aws:cloudtrail:us-west-2:123456789012:eventdatastore/
f1d45bff-d0e3-4868-b5d9-2eb678aa32fb",
```

```
        "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
        "importBatches": [
        {
        "batchId": "b1c2d3e4-f5g6-7890-hijk-lm1234567890",
        "status": "COMPLETED"
        },
        {
        "batchId": "c2d3e4f5-g6h7-8901-ijkl-mn2345678901",
        "status": "IN_PROGRESS"
        },
        {
        "batchId": "d3e4f5g6-h7i8-9012-jklm-no3456789012",
        "status": "FAILED",
        "errorMessage": "Access denied to CloudTrail event data store"
        }
        ],
        "nextToken": "eyJOZXh0VG9rZW4iOiJudWxsIiwiYm90b190cnVuY2F0ZV9hbW91bnQiOjJ9"
        }
```


## See Also

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

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

# DescribeImportTasks

Lists and describes import tasks, with optional filtering by import status and source ARN.

## Request Syntax

```
{
   "importId": "string",
   "importSourceArn": "string",
   "importStatus": "string",
   "limit": number,
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**importId**

Optional filter to describe a specific import task by its ID.

Type: String

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

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

Required: No

**importSourceArn**

Optional filter to list imports from a specific source

Type: String

Required: No

**importStatus**

Optional filter to list imports by their status. Valid values are IN_PROGRESS, CANCELLED, COMPLETED and FAILED.

Type: String

Valid Values: `IN_PROGRESS | CANCELLED | COMPLETED | FAILED`

Required: No

**limit**

The maximum number of import tasks to return in the response. Default: 50

Type: Integer

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

Required: No

**nextToken**

The pagination token for the next set of results.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## Response Syntax

```
{
   "imports": [
      {
         "creationTime": number,
         "errorMessage": "string",
         "importDestinationArn": "string",
         "importFilter": {
            "endEventTime": number,
            "startEventTime": number
         },
         "importId": "string",
         "importSourceArn": "string",
         "importStatistics": {
            "bytesImported": number
         },
```

```
            "importStatus": "string",
            "lastUpdatedTime": 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.

**imports**

The list of import tasks that match the request filters.

Type: Array of Import objects

**nextToken**

The token to use when requesting the next set of results. Not present if there are no additional results to retrieve.

Type: String

Length Constraints: Minimum length of 1.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

# Examples

## To describe import tasks

The following example retrieves a list of import tasks with filters.

### Sample Request

```
POST / HTTP/1.1
          Host: logs.<region>.<domain>
          X-Amz-Target: Logs_20140328.DescribeImportTasks
          {
          "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
          "importStatus": "IN_PROGRESS",
          "importSourceArn": "arn:aws:cloudtrail:us-west-2:123456789012:eventdatastore/
f1d45bff-d0e3-4868-b5d9-2eb678aa32fb",
          "limit": 50,
          "nextToken": "eyJOZXh0VG9rZW4iOiJudWxsIiwiYm90b190cnVuY2F0ZV9hbW91bnQiOjF9"
          }
```

### Sample Response

```
HTTP/1.1 200 OK
          {
          "imports": [
```

```
        {
        "importId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
        "importSourceArn": "arn:aws:cloudtrail:us-east-1:123456789012:eventdatastore/
f1d45bff-d0e3-4868-b5d9-2eb678aa32fb",
        "importStatus": "IN_PROGRESS",
        "importDestinationArn": "arn:aws:logs:us-east-1:123456789012:log-group:aws/
cloudtrail/f1d45bff-d0e3-4868-b5d9-2eb678aa32fb",
        "importStatistics": {
        "bytesImported": 1048576
        },
        "importFilter": {
        "startEventTime": 1640995200000,
        "endEventTime": 1641081600000
        },
        "creationTime": 1641168000000,
        "lastUpdatedTime": 1641171600000
        }
        ],
        "nextToken": "eyJOZXh0VG9rZW4iOiJudWxsIiwiYm90b190cnVuY2F0ZV9hbW91bnQiOjJ9"
        }
```


## See Also

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

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

# DescribeIndexPolicies

Returns the field index policies of the specified log group. For more information about field index policies, see PutIndexPolicy.

If a specified log group has a log-group level index policy, that policy is returned by this operation.

If a specified log group doesn't have a log-group level index policy, but an account-wide index policy applies to it, that account-wide policy is returned by this operation.

To find information about only account-level policies, use DescribeAccountPolicies instead.

## Request Syntax

```
{
   "logGroupIdentifiers": [ "string" ],
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifiers**

An array containing the name or ARN of the log group that you want to retrieve field index policies for.

Type: Array of strings

Array Members: Fixed number of 1 item.

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

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

Required: Yes

**nextToken**

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

```
{
   "indexPolicies": [
      {
         "lastUpdateTime": number,
         "logGroupIdentifier": "string",
         "policyDocument": "string",
         "policyName": "string",
         "source": "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.

**indexPolicies**

An array containing the field index policies.

Type: Array of IndexPolicy objects

**nextToken**

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 Error Types.

**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 concurrent 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

## See Also

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

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

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

# DescribeLogGroups

Returns information about log groups, including data sources that ingest into each log group. You can return all your log groups or filter the results by prefix. The results are ASCII-sorted by log group name.

CloudWatch Logs doesn't support IAM policies that control access to the `DescribeLogGroups` action by using the `aws:ResourceTag/key-name` condition key. Other CloudWatch Logs actions do support the use of the `aws:ResourceTag/key-name` condition key to control access. For more information about using tags to control access, see Controlling access to Amazon Web Services resources using tags.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account and view data from the linked source accounts. For more information, see CloudWatch cross-account observability.

## Request Syntax

```
{
   "accountIdentifiers": [ "string" ],
   "includeLinkedAccounts": boolean,
   "limit": number,
   "logGroupClass": "string",
   "logGroupIdentifiers": [ "string" ],
   "logGroupNamePattern": "string",
   "logGroupNamePrefix": "string",
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### accountIdentifiers

When `includeLinkedAccounts` is set to `true`, use this parameter to specify the list of accounts to search. You can specify as many as 20 account IDs in the array.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Length Constraints: Fixed length of 12.

Pattern: `^\d{12}$`

Required: No

**includeLinkedAccounts**

If you are using a monitoring account, set this to `true` to have the operation return log groups in the accounts listed in `accountIdentifiers`.

If this parameter is set to `true` and `accountIdentifiers` contains a null value, the operation returns all log groups in the monitoring account and all log groups in all source accounts that are linked to the monitoring account.

The default for this parameter is `false`.

Type: Boolean

Required: No

**limit**

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

**logGroupClass**

Use this parameter to limit the results to only those log groups in the specified log group class. If you omit this parameter, log groups of all classes can be returned.

Specifies the log group class for this log group. There are three classes:

- The `Standard` log class supports all CloudWatch Logs features.
- The `Infrequent Access` log class supports a subset of CloudWatch Logs features and incurs lower costs.

- Use the `Delivery` log class only for delivering AWS Lambda logs to store in Amazon S3 or Amazon Data Firehose. Log events in log groups in the Delivery class are kept in CloudWatch Logs for only one day. This log class doesn't offer rich CloudWatch Logs capabilities such as CloudWatch Logs Insights queries.

For details about the features supported by each class, see Log classes

Type: String

Valid Values: `STANDARD | INFREQUENT_ACCESS | DELIVERY`

Required: No

**logGroupIdentifiers**

Use this array to filter the list of log groups returned. If you specify this parameter, the only other filter that you can choose to specify is `includeLinkedAccounts`.

If you are using this operation in a monitoring account, you can specify the ARNs of log groups in source accounts and in the monitoring account itself. If you are using this operation in an account that is not a cross-account monitoring account, you can specify only log group names in the same account as the operation.

Type: Array of strings

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

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

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

Required: No

**logGroupNamePattern**

If you specify a string for this parameter, the operation returns only log groups that have names that match the string based on a case-sensitive substring search. For example, if you specify `DataLogs`, log groups named `DataLogs`, `aws/DataLogs`, and `GroupDataLogs` would match, but `datalogs`, `Data/log/s` and `Groupdata` would not match.

If you specify `logGroupNamePattern` in your request, then only `arn`, `creationTime`, and `logGroupName` are included in the response.

> **Note**
>
> `logGroupNamePattern` and `logGroupNamePrefix` are mutually exclusive. Only one of these parameters can be passed.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 512.

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

Required: No

**logGroupNamePrefix**

The prefix to match.

> **Note**
>
> `logGroupNamePrefix` and `logGroupNamePattern` are mutually exclusive. Only one of these parameters can be passed.

Type: String

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

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

Required: No

**nextToken**

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",
         "bearerTokenAuthenticationEnabled": boolean,
         "creationTime": number,
         "dataProtectionStatus": "string",
         "deletionProtectionEnabled": boolean,
         "inheritedProperties": [ "string" ],
         "kmsKeyId": "string",
         "logGroupArn": "string",
         "logGroupClass": "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**

An array of structures, where each structure contains the information about one log group.

Type: Array of LogGroup objects

**nextToken**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

## Examples

### 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",
      "deletionProtectionEnabled": true
      "bearerTokenAuthenticationEnabled": true
    },
    {
      "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,
      "deletionProtectionEnabled": false
      "bearerTokenAuthenticationEnabled": false
    }
  ]
}
```

## To list all of the log groups in a monitoring account and all linked source accounts that have logGroup in their name

The following example lists all of the log groups in a monitoring account and all linked source accounts that have `logGroup` in their name.

### Sample Request

```
{
  "includeLinkedAccounts" : "true",
  "logGroupNamePattern": "logGroup"
}
```

### Sample Response

```
{
  "logGroups": [
    {
      "arn": "arn:aws:logs:us-east-1:123456789012:log-group:monitoring-
logGroup-1234:*",
      "creationTime": 1393545600000,
      "logGroupName": "monitoring-logGroup-1234"
    },
    {
      "arn": "arn:aws:logs:us-east-1:012345678901:log-group:source-loggroup-5678:*",
      "creationTime": 1396224000000,
      "logGroupName": "source-loggroup-5678"
      }
  ]
}
```

## See Also

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

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

# 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.

You can specify the log group to search by using either `logGroupIdentifier` or `logGroupName`. You must include one of these two parameters, but you can't include both.

This operation has a limit of 25 transactions per second, after which transactions are throttled.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account and view data from the linked source accounts. For more information, see CloudWatch cross-account observability.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**descending**

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

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

### logGroupIdentifier

Specify either the name or ARN of the log group to view. If the log group is in a source account and you are using a monitoring account, you must use the log group ARN.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

### logGroupName

The name of the log group.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

**logStreamNamePrefix**

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**

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**

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 in rare situations might take longer.

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**

The log streams.

Type: Array of LogStream objects

**nextToken**

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 Error Types.

**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

## Examples

### 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": [
    {
      "storedBytes": 0,
      "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"
    },
    {
      "storedBytes": 0,
      "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"
    }
  ]
}
```

## Example

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

### Sample Request

```
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:my-log-
group-1:dli"
```

```
}
```

### Sample Response

```
{
  "logStreams": [
    {
      "storedBytes": 0,
      "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"
      },
      {
      "storedBytes": 0,
      "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"
      } ]
}
```

## See Also

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

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

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

# DescribeLookupTables

Retrieves metadata about lookup tables in your account. You can optionally filter the results by table name prefix. Results are sorted by table name in ascending order.

## Request Syntax

```
{
   "lookupTableNamePrefix": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**lookupTableNamePrefix**

A prefix to filter lookup tables by name. Only tables whose names start with this prefix are returned. If you don't specify a prefix, all tables in the account and Region are returned.

Type: String

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

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

Required: No

**maxResults**

The maximum number of lookup tables to return in the response. The default value is 50 and the maximum value is 100.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

**nextToken**

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

```
{
   "lookupTables": [
      {
         "description": "string",
         "kmsKeyId": "string",
         "lastUpdatedTime": number,
         "lookupTableArn": "string",
         "lookupTableName": "string",
         "recordsCount": number,
         "sizeBytes": number,
         "tableFields": [ "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.

**lookupTables**

An array of structures, where each structure contains metadata about one lookup table.

Type: Array of LookupTable objects

**nextToken**

The token to use when requesting the next set of items.

Type: String

Length Constraints: Minimum length of 1.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

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

## See Also

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

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

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

# DescribeMetricFilters

Lists the specified metric filters. You can list all of 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.

The request accepts the following data in JSON format.

**filterNamePrefix**

The prefix to match. CloudWatch Logs uses the value that you set here only if you also include the `logGroupName` parameter in your request.

Type: String

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

Pattern: `[^:*]*`

Required: No

**limit**

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**

The name of the log group.

Type: String

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

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

Required: No

**metricName**

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**

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**

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": [
      {
         "applyOnTransformedLogs": boolean,
         "creationTime": number,
         "emitSystemFieldDimensions": [ "string" ],
         "fieldSelectionCriteria": "string",
         "filterName": "string",
         "filterPattern": "string",
         "logGroupName": "string",
         "metricTransformations": [
            {
               "defaultValue": number,
               "dimensions": {
                  "string" : "string"
               },
               "metricName": "string",
               "metricNamespace": "string",
               "metricValue": "string",
               "unit": "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

The metric filters.

Type: Array of MetricFilter objects

**nextToken**

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 Error Types.

**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

## Examples

### 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": [
    {
      "applyOnTransformedLogs": true,
      "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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DescribeQueries

Returns a list of CloudWatch Logs Insights queries that are scheduled, running, or have been run recently in this account. You can request all queries or limit it to queries of a specific log group or queries with a certain status.

This operation includes both interactive queries started directly by users and automated queries executed by scheduled query configurations. Scheduled query executions appear in the results alongside manually initiated queries, providing visibility into all query activity in your account.

## Request Syntax

```
{
   "logGroupName": "string",
   "maxResults": number,
   "nextToken": "string",
   "queryLanguage": "string",
   "status": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupName**

Limits the returned queries to only those for the specified log group.

Type: String

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

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

Required: No

**maxResults**

Limits the number of returned queries to the specified number.

Type: Integer

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

Required: No

**nextToken**

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

**queryLanguage**

Limits the returned queries to only the queries that use the specified query language.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: No

**status**

Limits the returned queries to only those that have the specified status. Valid values are `Cancelled`, `Complete`, `Failed`, `Running`, and `Scheduled`.

Type: String

Valid Values: `Scheduled | Running | Complete | Failed | Cancelled | Timeout | Unknown`

Required: No

## Response Syntax

```
{
   "nextToken": "string",
   "queries": [
```

```
      {
         "bytesScanned": number,
         "createTime": number,
         "logGroupName": "string",
         "queryDuration": number,
         "queryId": "string",
         "queryLanguage": "string",
         "queryString": "string",
         "status": "string",
         "userIdentity": "string"
      }
   ]
}
```

## Response Elements

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

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

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**queries**

The list of queries that match the request.

Type: Array of QueryInfo objects

## Errors

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

**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

# Examples

## List the CloudWatch Logs Insights queries for a specific log group

The following example lists the successfully completed queries of the log group named `MyLogGroup`.

### 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.DescribeQueries
{
   "logGroupName": "MyLogGroup",
   "status": "Completed"
}
```

### Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
```

```
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "nextToken": "string",
    "queries": [
        {
            "createTime": 1540923785,
            "logGroupName": "MyLogGroup",
            "queryId": "12ab3456-12ab-123a-789e-1234567890ab",
            "queryString": "filter @message like /Exception/ | stats count(*) as
 @exceptionCount by date_floor(@timestamp, 5m) | sort @exceptionCount desc",
            "status": "Completed",
            "queryDuration": 5200,
            "bytesScanned": 1048576.0,
            "userIdentity": "arn:aws:iam::123456789012:user/example-user"
        },
        {
            "createTime": 1540025601,
            "logGroupName": "MyLogGroup",
            "queryId": "98ab3456-12ab-123a-789e-1234567890ab",
            "queryString": "stats count(*) by eventSource, eventName, awsRegion",
            "status": "Running",
            "queryDuration": 1500,
            "bytesScanned": 524288.0,
            "userIdentity": "arn:aws:iam::123456789012:user/example-user"
        }
    ]
}
```

## See Also

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

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

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

# DescribeQueryDefinitions

This operation returns a paginated list of your saved CloudWatch Logs Insights query definitions. You can retrieve query definitions from the current account or from a source account that is linked to the current account.

You can use the `queryDefinitionNamePrefix` parameter to limit the results to only the query definitions that have names that start with a certain string.

## Request Syntax

```
{
   "maxResults": number,
   "nextToken": "string",
   "queryDefinitionNamePrefix": "string",
   "queryLanguage": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**maxResults**

Limits the number of returned query definitions to the specified number.

Type: Integer

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

Required: No

**nextToken**

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

**queryDefinitionNamePrefix**

Use this parameter to filter your results to only the query definitions that have names that start with the prefix you specify.

Type: String

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

Required: No

**queryLanguage**

The query language used for this query. For more information about the query languages that CloudWatch Logs supports, see Supported query languages.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: No

## Response Syntax

```
{
   "nextToken": "string",
   "queryDefinitions": [
      {
         "lastModified": number,
         "logGroupNames": [ "string" ],
         "name": "string",
         "parameters": [
            {
               "defaultValue": "string",
               "description": "string",
               "name": "string"
            }
         ],
         "queryDefinitionId": "string",
         "queryLanguage": "string",
         "queryString": "string"
      }
   ]
```

```
}
```

## Response Elements

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

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

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**queryDefinitions**

The list of query definitions that match your request.

Type: Array of QueryDefinition objects

## Errors

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

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

## Examples

### Example

This example retrieves a list of query definitions that have names that begin with `lambda`.

## 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.DescribeQueryDefinitions
{
   "queryDefinitionNamePrefix": "lambda",
   "maxResults": 2
}
```

## Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
   "nextToken": "abdcefghijlkmn",
   "queryDefinitions": [
      {
         "lastModified": 1549321515,
         "logGroupNames": [ "VPC_Flow_Log1", "VPC_Flow_Log2" ],
         "name": "VPC-top15-packet-transfers",
         "queryDefinitionId": "123456ab-12ab-123a-789e-1234567890ab",
         "queryString": "stats sum(packets) as packetsTransferred by srcAddr, dstAddr |
 sort packetsTransferred  desc | limit 15",
         "parameters": []
      },
      {
         "lastModified": 1557321299,
         "name": "ErrorsByLevel",
         "queryDefinitionId": "456789ab-abcd-1234-789e-0987654321ab",
         "queryString": "fields @timestamp, @message | filter level = {{logLevel}}",
```

```
         "parameters": [
            {
               "name": "logLevel",
               "defaultValue": "ERROR",
               "description": "Log level to filter (ERROR, WARN, INFO, DEBUG)"
            }
         ]
      }
   ]
}
```

## See Also

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

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

# DescribeResourcePolicies

Lists the resource policies in this account.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**limit**

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**

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

**policyScope**

Specifies the scope of the resource policy. Valid values are ACCOUNT or RESOURCE. When not specified, defaults to ACCOUNT.

Type: String

Valid Values: ACCOUNT | RESOURCE

Required: No

**resourceArn**

The ARN of the CloudWatch Logs resource for which to query the resource policy.

Type: String

Required: No

## Response Syntax

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

## Response Elements

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

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

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**resourcePolicies**

The resource policies that exist in this account.

Type: Array of ResourcePolicy objects

## Errors

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

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

# 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.

The request accepts the following data in JSON format.

**filterNamePrefix**

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**

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**

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

**nextToken**

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": [
      {
         "applyOnTransformedLogs": boolean,
         "creationTime": number,
         "destinationArn": "string",
         "distribution": "string",
         "emitSystemFields": [ "string" ],
         "fieldSelectionCriteria": "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**

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**

The subscription filters.

Type: Array of SubscriptionFilter objects

## Errors

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

**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

# Examples

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

# DisassociateKmsKey

Disassociates the specified AWS KMS key from the specified log group or from all CloudWatch Logs Insights query results in the account.

When you use `DisassociateKmsKey`, you specify either the `logGroupName` parameter or the `resourceIdentifier` parameter. You can't specify both of those parameters in the same operation.

- Specify the `logGroupName` parameter to stop using the AWS KMS key to encrypt future log events ingested and stored in the log group. Instead, they will be encrypted with the default CloudWatch Logs method. The log events that were ingested while the key was associated with the log group are still encrypted with that key. Therefore, CloudWatch Logs will need permissions for the key whenever that data is accessed.
- Specify the `resourceIdentifier` parameter with the `query-result` resource to stop using the AWS KMS key to encrypt the results of all future StartQuery operations in the account. They will instead be encrypted with the default CloudWatch Logs method. The results from queries that ran while the key was associated with the account are still encrypted with that key. Therefore, CloudWatch Logs will need permissions for the key whenever that data is accessed.

It can take up to 5 minutes for this operation to take effect.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupName**

The name of the log group.

In your `DisassociateKmsKey` operation, you must specify either the `resourceIdentifier` parameter or the `logGroup` parameter, but you can't specify both.

Type: String

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

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

Required: No

**resourceIdentifier**

Specifies the target for this operation. You must specify one of the following:

- Specify the ARN of a log group to stop having CloudWatch Logs use the AWS KMS key to encrypt log events that are ingested and stored by that log group. After you run this operation, CloudWatch Logs encrypts ingested log events with the default CloudWatch Logs method. The log group ARN must be in the following format. Replace *REGION* and *ACCOUNT_ID* with your Region and account ID.

  `arn:aws:logs:`*`REGION`*`:`*`ACCOUNT_ID`*`:log-group:`*`LOG_GROUP_NAME`*

- Specify the following ARN to stop using this key to encrypt the results of future StartQuery operations in this account. Replace *REGION* and *ACCOUNT_ID* with your Region and account ID.

  `arn:aws:logs:`*`REGION`*`:`*`ACCOUNT_ID`*`:query-result:*`

In your `DisssociateKmsKey` operation, you must specify either the `resourceIdentifier` parameter or the `logGroup` parameter, but you can't specify both.

Type: String

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

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

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## Examples

### To disassociate an KMS key from a log group

The following example disassociates the associated KMS key 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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

# DisassociateSourceFromS3TableIntegration

Disassociates a data source from an S3 Table Integration, removing query access and deleting all associated data from the integration.

## Request Syntax

```
{
   "identifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**identifier**

The unique identifier of the association to remove between the data source and S3 Table Integration.

Type: String

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

Required: Yes

## Response Syntax

```
{
   "identifier": "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.

**identifier**

The unique identifier of the association that was removed.

Type: String

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

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# FilterLogEvents

Lists log events from the specified log group. You can list all the log events or filter the results using one or more of the following:

- A filter pattern
- A time range
- The log stream name, or a log stream name prefix that matches multiple log streams

You must have the `logs:FilterLogEvents` permission to perform this operation.

You can specify the log group to search by using either `logGroupIdentifier` or `logGroupName`. You must include one of these two parameters, but you can't include both.

`FilterLogEvents` is a paginated operation. Each page returned can contain up to 1 MB of log events or up to 10,000 log events. A returned page might only be partially full, or even empty. For example, if the result of a query would return 15,000 log events, the first page isn't guaranteed to have 10,000 log events even if they all fit into 1 MB.

Partially full or empty pages don't necessarily mean that pagination is finished. If the results include a `nextToken`, there might be more log events available. You can return these additional log events by providing the nextToken in a subsequent `FilterLogEvents` operation. If the results don't include a `nextToken`, then pagination is finished.

Specifying the `limit` parameter only guarantees that a single page doesn't return more log events than the specified limit, but it might return fewer events than the limit. This is the expected API behavior.

The returned log events are sorted by event timestamp, the timestamp when the event was ingested by CloudWatch Logs, and the ID of the `PutLogEvents` request. By default, the events are returned in ascending timestamp order (oldest first). To return events in descending timestamp order (newest first), set the `startFromHead` parameter to `false`.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account and view data from the linked source accounts. For more information, see CloudWatch cross-account observability.

> **Note**
>
> If you are using log transformation, the `FilterLogEvents` operation returns only the original versions of log events, before they were transformed. To view the transformed versions, you must use a CloudWatch Logs query.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### endTime

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

Type: Long

Valid Range: Minimum value of 0.

Required: No

### filterPattern

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

*This parameter has been deprecated.*

If the value is true, the operation attempts 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.

**Important** As of June 17, 2019, this parameter is ignored and the value is assumed to be true. The response from this operation always interleaves events from multiple log streams within a log group.

Type: Boolean

Required: No

### limit

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

### logGroupIdentifier

Specify either the name or ARN of the log group to view log events from. If the log group is in a source account and you are using a monitoring account, you must use the log group ARN.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

**logGroupName**

The name of the log group to search.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

**logStreamNamePrefix**

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`, the action returns an `InvalidParameterException` error.

Type: String

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

Pattern: `[^:*]*`

Required: No

### logStreamNames

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

If you specify a value for both `logStreamNames` and `logStreamNamePrefix`, 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

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

### startFromHead

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 true.

The `startFromHead` parameter sets the sort direction on the first request. On subsequent requests, the `nextToken` determines the sort direction. To continue paginating in the same direction, provide the returned `nextToken`. If you provide both `nextToken` and `startFromHead`, the direction of the `nextToken` is used.

> **Note**
>
> Setting `startFromHead` to `false` is supported only when `startTime` is on or after `Jan 1, 2024 00:00:00` UTC. A request with `startFromHead` set to `false` and a `startTime` before this date returns an `InvalidParameterException`.

Type: Boolean

Required: No

**startTime**

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

> **Note**
>
> Set `startTime` explicitly to reduce the chances of empty pages in the response.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**unmask**

Specify `true` to display the log event fields with all sensitive data unmasked and visible. The default is `false`.

To use this operation with this parameter, you must be signed into an account with the `logs:Unmask` permission.

Type: Boolean

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**

The matched events.

Type: Array of FilteredLogEvent objects

**nextToken**

The token for the next set of items in the sorting direction specified by the `startFromHead` parameter in the first request. The token expires after 24 hours.

If the results don't include a `nextToken`, then pagination is finished.

Type: String

Length Constraints: Minimum length of 1.

**searchedLogStreams**

**Important** As of May 15, 2020, this parameter is no longer supported. This parameter returns an empty list.

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

Type: Array of SearchedLogStream objects

## Errors

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

**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

# Examples

## 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-
MMtQtvcoMdmq4T29K7Q6Y1e_KvyfpcT_f_tUw"
}
```

## Example

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

### Sample Request

```
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:monitoring-
logGroup-1234:*",
  "filterPattern": "ERROR"
}
```

### Sample Response

```
{
  "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-
MMtQtvcoMdmq4T29K7Q6Y1e_KvyfpcT_f_tUw"
}
```

## To list the most recent events in a log group in reverse order

The following example lists the most recent events for the specified log group that contain ERROR, returned in descending timestamp order (newest first).

### 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",
  "startFromHead": false,
  "limit": 100
}
```

### 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": 1396035378989,
      "message": "ERROR Event 3",
      "logStreamName": "my-log-stream-3",
      "eventId": "31132629274945519779805322857203735586824454643391594505"
    },
    {
      "ingestionTime": 1396035394997,
      "timestamp": 1396035378988,
      "message": "ERROR Event 2",
      "logStreamName": "my-log-stream-2",
      "eventId": "31132629274945519779805322857203735586814454643391594505"
    },
    {
      "ingestionTime": 1396035394997,
      "timestamp": 1396035378988,
      "message": "ERROR Event 1",
      "logStreamName": "my-log-stream-1",
      "eventId": "31132629274945519779805322857203735586714454643391594505"
    }
  ],
  "nextToken": "eJxExampleTokenwjR"
}
```

## See Also

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

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

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

# GetDataProtectionPolicy

Returns information about a log group data protection policy.

## Request Syntax

```
{
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### logGroupIdentifier

The name or ARN of the log group that contains the data protection policy that you want to see.

Type: String

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

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

Required: Yes

## Response Syntax

```
{
   "lastUpdatedTime": number,
   "logGroupIdentifier": "string",
   "policyDocument": "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.

**lastUpdatedTime**

The date and time that this policy was most recently updated.

Type: Long

Valid Range: Minimum value of 0.

**logGroupIdentifier**

The log group name or ARN that you specified in your request.

Type: String

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

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

**policyDocument**

The data protection policy document for this log group.

Type: String

## Errors

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

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# GetDelivery

Returns complete information about one logical *delivery*. A delivery is a connection between a *delivery source* and a *delivery destination*.

A delivery source represents an AWS resource that sends logs to an logs delivery destination. The destination can be CloudWatch Logs, Amazon S3, or Firehose. Only some AWS services support being configured as a delivery source. These services are listed in Enable logging from AWS services.

You need to specify the delivery `id` in this operation. You can find the IDs of the deliveries in your account with the DescribeDeliveries operation.

## Request Syntax

```
{
   "id": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### id

The ID of the delivery that you want to retrieve.

Type: String

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

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

Required: Yes

## Response Syntax

```
{
```

```
   "delivery": {
      "arn": "string",
      "deliveryDestinationArn": "string",
      "deliveryDestinationType": "string",
      "deliverySourceName": "string",
      "fieldDelimiter": "string",
      "id": "string",
      "recordFields": [ "string" ],
      "s3DeliveryConfiguration": {
         "enableHiveCompatiblePath": boolean,
         "suffixPath": "string"
      },
      "tags": {
         "string" : "string"
      }
   }
}
```

## Response Elements

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

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

**delivery**

A structure that contains information about the delivery.

Type: Delivery object

## Errors

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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# GetDeliveryDestination

Retrieves complete information about one delivery destination.

## Request Syntax

```
{
   "name": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**name**

The name of the delivery destination that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: Yes

## Response Syntax

```
{
   "deliveryDestination": {
      "arn": "string",
      "deliveryDestinationConfiguration": {
         "destinationResourceArn": "string"
      },
      "deliveryDestinationType": "string",
      "name": "string",
      "outputFormat": "string",
      "tags": {
```

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

## Response Elements

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

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

**deliveryDestination**

A structure containing information about the delivery destination.

Type: DeliveryDestination object

## Errors

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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# GetDeliveryDestinationPolicy

Retrieves the delivery destination policy assigned to the delivery destination that you specify. For more information about delivery destinations and their policies, see PutDeliveryDestinationPolicy.

## Request Syntax

```
{
   "deliveryDestinationName": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**deliveryDestinationName**

The name of the delivery destination that you want to retrieve the policy of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: Yes

## Response Syntax

```
{
   "policy": {
      "deliveryDestinationPolicy": "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.

**policy**

The IAM policy for this delivery destination.

Type: Policy object

## Errors

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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# GetDeliverySource

Retrieves complete information about one delivery source.

## Request Syntax

```
{
   "name": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**name**

The name of the delivery source that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: Yes

## Response Syntax

```
{
   "deliverySource": {
      "arn": "string",
      "deliverySourceConfiguration": {
         "string" : "string"
      },
      "logType": "string",
      "name": "string",
      "resourceArns": [ "string" ],
      "service": "string",
      "status": "string",
```

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

## Response Elements

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

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

**deliverySource**

A structure containing information about the delivery source.

Type: DeliverySource object

## Errors

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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# GetIntegration

Returns information about one integration between CloudWatch Logs and OpenSearch Service.

## Request Syntax

```
{
   "integrationName": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**integrationName**

The name of the integration that you want to find information about. To find the name of your integration, use ListIntegrations

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

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

Required: Yes

## Response Syntax

```
{
   "integrationDetails": { ... },
   "integrationName": "string",
   "integrationStatus": "string",
   "integrationType": "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.

**integrationDetails**

A structure that contains information about the integration configuration. For an integration with OpenSearch Service, this includes information about OpenSearch Service resources such as the collection, the workspace, and policies.

Type: IntegrationDetails object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

**integrationName**

The name of the integration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

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

**integrationStatus**

The current status of this integration.

Type: String

Valid Values: `PROVISIONING | ACTIVE | FAILED`

**integrationType**

The type of integration. Integrations with OpenSearch Service have the type `OPENSEARCH`.

Type: String

Valid Values: `OPENSEARCH`

## Errors

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

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

# GetLogAnomalyDetector

Retrieves information about the log anomaly detector that you specify. The AWS KMS key ARN detected is valid.

## Request Syntax

```
{
   "anomalyDetectorArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**anomalyDetectorArn**

The ARN of the anomaly detector to retrieve information about. You can find the ARNs of log anomaly detectors in your account by using the ListLogAnomalyDetectors operation.

Type: String

Length Constraints: Minimum length of 1.

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

Required: Yes

## Response Syntax

```
{
   "anomalyDetectorStatus": "string",
   "anomalyVisibilityTime": number,
   "creationTimeStamp": number,
   "detectorName": "string",
   "evaluationFrequency": "string",
   "filterPattern": "string",
   "kmsKeyId": "string",
```

```
   "lastModifiedTimeStamp": number,
   "logGroupArnList": [ "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.

**anomalyDetectorStatus**

Specifies whether the anomaly detector is currently active. To change its status, use the `enabled` parameter in the UpdateLogAnomalyDetector operation.

Type: String

Valid Values: `INITIALIZING | TRAINING | ANALYZING | FAILED | DELETED | PAUSED`

**anomalyVisibilityTime**

The number of days used as the life cycle of anomalies. After this time, anomalies are automatically baselined and the anomaly detector model will treat new occurrences of similar event as normal.

Type: Long

Valid Range: Minimum value of 7. Maximum value of 90.

**creationTimeStamp**

The date and time when this anomaly detector was created.

Type: Long

Valid Range: Minimum value of 0.

**detectorName**

The name of the log anomaly detector

Type: String

Length Constraints: Minimum length of 1.

**evaluationFrequency**

Specifies how often the anomaly detector runs and look for anomalies. Set this value according to the frequency that the log group receives new logs. For example, if the log group receives new log events every 10 minutes, then setting `evaluationFrequency` to `FIFTEEN_MIN` might be appropriate.

Type: String

Valid Values: `ONE_MIN | FIVE_MIN | TEN_MIN | FIFTEEN_MIN | THIRTY_MIN | ONE_HOUR`

**filterPattern**

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event can contain timestamps, 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.

**kmsKeyId**

The ARN of the AWS KMS key assigned to this anomaly detector, if any.

Type: String

Length Constraints: Maximum length of 256.

**lastModifiedTimeStamp**

The date and time when this anomaly detector was most recently modified.

Type: Long

Valid Range: Minimum value of 0.

**logGroupArnList**

An array of structures, where each structure contains the ARN of a log group associated with this anomaly detector.

Type: Array of strings

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

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

## Errors

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

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

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

# GetLogEvents

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

`GetLogEvents` is a paginated operation. Each page returned can contain up to 1 MB of log events or up to 10,000 log events. A returned page might only be partially full, or even empty. For example, if the result of a query would return 15,000 log events, the first page isn't guaranteed to have 10,000 log events even if they all fit into 1 MB.

Partially full or empty pages don't necessarily mean that pagination is finished. As long as the `nextBackwardToken` or `nextForwardToken` returned is NOT equal to the `nextToken` that you passed into the API call, there might be more log events available. The token that you use depends on the direction you want to move in along the log stream. The returned tokens are never null.

> **Note**
>
> If you set `startFromHead` to `true` and you don't include `endTime` in your request, you can end up in a situation where the pagination doesn't terminate. This can happen when the new log events are being added to the target log streams faster than they are being read. This situation is a good use case for the CloudWatch Logs Live Tail feature.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account and view data from the linked source accounts. For more information, see CloudWatch cross-account observability.

You can specify the log group to search by using either `logGroupIdentifier` or `logGroupName`. You must include one of these two parameters, but you can't include both.

> **Note**
>
> If you are using log transformation, the `GetLogEvents` operation returns only the original versions of log events, before they were transformed. To view the transformed versions, you must use a CloudWatch Logs query.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**endTime**

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

Type: Long

Valid Range: Minimum value of 0.

Required: No

**limit**

The maximum number of log events returned. If you don't specify a limit, the default 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

### logGroupIdentifier

Specify either the name or ARN of the log group to view events from. If the log group is in a source account and you are using a monitoring account, you must use the log group ARN.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

### logGroupName

The name of the log group.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

### logStreamName

The name of the log stream.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**nextToken**

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**

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.

If you are using a previous `nextForwardToken` value as the `nextToken` in this operation, you must specify `true` for `startFromHead`.

Type: Boolean

Required: No

**startTime**

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

> **Note**
>
> Set `startTime` explicitly to reduce the chances of empty pages in the response.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**unmask**

Specify `true` to display the log event fields with all sensitive data unmasked and visible. The default is `false`.

To use this operation with this parameter, you must be signed into an account with the `logs:Unmask` permission.

Type: Boolean

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**

The events.

Type: Array of OutputLogEvent objects

**nextBackwardToken**

The token for the next set of items in the backward direction. The token expires after 24 hours. This token is not null. If you have reached the end of the stream, it returns the same token you passed in.

Type: String

Length Constraints: Minimum length of 1.

**nextForwardToken**

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 returns 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 Error Types.

**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

## Examples

### 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"
}
```

## Example

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

### Sample Request

```
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:monitoring-
logGroup-1234:*",
  "logStreamName": "my-log-stream"
}
```

### Sample Response

```
{
    "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 V2
- AWS SDK for .NET V4

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

# GetLogFields

Discovers available fields for a specific data source and type. The response includes any field modifications introduced through pipelines, such as new fields or changed field types.

## Request Syntax

```
{
   "dataSourceName": "string",
   "dataSourceType": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**dataSourceName**

The name of the data source to retrieve log fields for.

Type: String

Required: Yes

**dataSourceType**

The type of the data source to retrieve log fields for.

Type: String

Required: Yes

## Response Syntax

```
{
   "logFields": [
      {
         "logFieldName": "string",
         "logFieldType": {
```

```
            "element": "LogFieldType",
            "fields": [
               "LogFieldsListItem"
            ],
            "type": "string"
         }
      }
   ]
}
```

## Response Elements

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

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

**logFields**

The list of log fields for the specified data source, including field names and their data types.

Type: Array of LogFieldsListItem objects

## Errors

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

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# GetLogGroupFields

Returns a list of the fields that are included in log events in the specified log group. Includes the percentage of log events that contain each field. The search is limited to a time period that you specify.

This operation is used for discovering fields within log group events. For discovering fields across data sources, use the GetLogFields operation.

You can specify the log group to search by using either `logGroupIdentifier` or `logGroupName`. You must specify one of these parameters, but you can't specify both.

In the results, fields that start with @ are fields generated by CloudWatch Logs. For example, `@timestamp` is the timestamp of each log event. For more information about the fields that are generated by CloudWatch logs, see Supported Logs and Discovered Fields.

The response results are sorted by the frequency percentage, starting with the highest percentage.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account and view data from the linked source accounts. For more information, see CloudWatch cross-account observability.

## Request Syntax

```
{
   "logGroupIdentifier": "string",
   "logGroupName": "string",
   "time": number
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### logGroupIdentifier

Specify either the name or ARN of the log group to view. If the log group is in a source account and you are using a monitoring account, you must specify the ARN.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

**logGroupName**

The name of the log group to search.

> **Note**
>
> You must include either `logGroupIdentifier` or `logGroupName`, but not both.

Type: String

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

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

Required: No

**time**

The time to set as the center of the query. If you specify `time`, the 8 minutes before and 8 minutes after this time are searched. If you omit `time`, the most recent 15 minutes up to the current time are searched.

The `time` value is specified as epoch time, which is the number of seconds since `January 1, 1970, 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

## Response Syntax

```
{
   "logGroupFields": [
      {
         "name": "string",
         "percent": 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.

**logGroupFields**

The array of fields found in the query. Each object in the array contains the name of the field, along with the percentage of time it appeared in the log events that were queried.

Type: Array of LogGroupField objects

## Errors

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

**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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

# Examples

## Retrieve fields found in log events in a log group

The following example lists the log events and how often they occur in `MyLogGroup` for the 15 minutes before November 1, 2018, 00:00:00UTC.

### 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.GetLogGroupFields
{
   "logGroupName": "MyLogGroup",
   "time": 1541030400
}
```

### Sample Response

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

```
    "logGroupFields": [
        {
            "name": "@timestamp",
            "percent": 100
        },
        {
            "name": "@message",
            "percent": 100
        },
        {
            "name": "@logStream",
            "percent": 100
        },
        {
            "name": "type",
            "percent": 57
        },
        {
            "name": "duration",
            "percent": 13
        }
    ]
}
```

## Example

The following example lists the log events and how often they occur in `MyLogGroup` for the 15 minutes before November 1, 2018, 00:00:00UTC.

### Sample Request

```
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:monitoring-
logGroup-1234:*",
  "time": 1541030400
}
```

### Sample Response

```
{
    "logGroupFields": [
    {
```

```
         "name": "@timestamp",
         "percent": 100
    },
    {
      "name": "@message",
      "percent": 100
    },
    {
       "name": "@logStream",
       "percent": 100
    },
    {
       "name": "type",
       "percent": 57
    },
    {
       "name": "duration",
       "percent": 13
   }
] }
```

## See Also

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

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

# GetLogObject

Retrieves a large logging object (LLO) and streams it back. This API is used to fetch the content of large portions of log events that have been ingested through the PutOpenTelemetryLogs API. When log events contain fields that would cause the total event size to exceed 1MB, CloudWatch Logs automatically processes up to 10 fields, starting with the largest fields. Each field is truncated as needed to keep the total event size as close to 1MB as possible. The excess portions are stored as Large Log Objects (LLOs) and these fields are processed separately and LLO reference system fields (in the format `@ptr.$[path.to.field]`) are added. The path in the reference field reflects the original JSON structure where the large field was located. For example, this could be `@ptr.$['input']['message']`, `@ptr.$['AAA']['BBB']['CCC']['DDD']`, `@ptr.$['AAA']`, or any other path matching your log structure.

> **Note**
>
> The `GetLogObject` API routes requests using SDK host prefix injection. SDK versions released before April 1, 2026 route to `streaming-logs.`*`Region`*`.amazonaws.com`, which does not support VPC endpoints. SDK versions released on or after April 1, 2026 route to `stream-logs.`*`Region`*`.amazonaws.com`, which supports VPC endpoints. To set up a VPC endpoint for this API, see Creating a VPC endpoint for CloudWatch Logs .

## Request Syntax

```
{
   "logObjectPointer": "string",
   "unmask": boolean
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logObjectPointer**

A pointer to the specific log object to retrieve. This is a required parameter that uniquely identifies the log object within CloudWatch Logs. The pointer is typically obtained from a previous query or filter operation.

Type: String

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

Required: Yes

**unmask**

A boolean flag that indicates whether to unmask sensitive log data. When set to true, any masked or redacted data in the log object will be displayed in its original form. Default is false.

Type: Boolean

Required: No

## Response Syntax

```
{
   "fieldStream": {
      "fields": {
         "data": blob
      },
      "InternalStreamingException": {
      }
   }
}
```

## 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.

**fieldStream**

A stream of structured log data returned by the GetLogObject operation. This stream contains log events with their associated metadata and extracted fields.

Type: GetLogObjectResponseStream object

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

## See Also

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

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

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

# GetLogRecord

Retrieves all of the fields and values of a single log event. All fields are retrieved, even if the original query that produced the `logRecordPointer` retrieved only a subset of fields. Fields are returned as field name/field value pairs.

The full unparsed log event is returned within `@message`.

## Request Syntax

```
{
   "logRecordPointer": "string",
   "unmask": boolean
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logRecordPointer**

The pointer corresponding to the log event record you want to retrieve. You get this from the response of a `GetQueryResults` operation. In that response, the value of the `@ptr` field for a log event is the value to use as `logRecordPointer` to retrieve that complete log event record.

Type: String

Required: Yes

**unmask**

Specify `true` to display the log event fields with all sensitive data unmasked and visible. The default is `false`.

To use this operation with this parameter, you must be signed into an account with the `logs:Unmask` permission.

Type: Boolean

Required: No

## Response Syntax

```
{
   "logRecord": {
      "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.

**logRecord**

The requested log event, as a JSON string.

Type: String to string map

## Errors

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

**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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

# Examples

## To retrieve all fields for a specified log event

The following example retrieves the fields for a specified log event.

### 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.GetLogRecord
{
   "logRecordPointer": "123456789"
}
```

### Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
   "logRecord": {
      "@timestamp" : "1536857812",
```

```
      "@message" : "123456789012 eni-1234567890abcde123 6 33 ACCEPT"
      "accountId" : "123456789012",
      "interfaceId" : "eni-1234567890abcde123",
      "protocol" : "6",
      "packets" : "33",
      "action" : "ACCEPT"
   }
}
```

## See Also

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

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

# GetLookupTable

Retrieves the full content of a lookup table, including the CSV data.

## Request Syntax

```
{
   "lookupTableArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**lookupTableArn**

The ARN of the lookup table to retrieve.

Type: String

Required: Yes

## Response Syntax

```
{
   "description": "string",
   "kmsKeyId": "string",
   "lastUpdatedTime": number,
   "lookupTableArn": "string",
   "lookupTableName": "string",
   "sizeBytes": number,
   "tableBody": "string"
}
```

## Response Elements

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

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

**description**

The description of the lookup table.

Type: String

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

**kmsKeyId**

The ARN of the AWS KMS key used to encrypt the lookup table data, if applicable.

Type: String

Length Constraints: Maximum length of 256.

**lastUpdatedTime**

The time when the lookup table 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.

**lookupTableArn**

The ARN of the lookup table.

Type: String

**lookupTableName**

The name of the lookup table.

Type: String

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

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

**sizeBytes**

The size of the lookup table in bytes.

Type: Long

Valid Range: Minimum value of 0.

**tableBody**

The full CSV content of the lookup table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10485760.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

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

## See Also

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

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

# GetQueryResults

Returns the results from the specified query.

Only the fields requested in the query are returned, along with a `@ptr` field, which is the identifier for the log record. You can use the value of `@ptr` in a GetLogRecord operation to get the full log record.

`GetQueryResults` does not start running a query. To run a query, use StartQuery. For more information about how long results of previous queries are available, see CloudWatch Logs quotas.

If the value of the `Status` field in the output is `Running`, this operation returns only partial results. If you see a value of `Scheduled` or `Running` for the status, you can retry the operation later to see the final results.

This operation is used both for retrieving results from interactive queries and from automated scheduled query executions. Scheduled queries use `GetQueryResults` internally to retrieve query results for processing and delivery to configured destinations.

You can retrieve up to 100,000 log event results from a query, if available, by using pagination. Use the `nextToken` returned in the response to request additional pages of results, with each page returning up to 10,000 log events. This is only supported for Logs Insights QL and is currently not supported for PPL and SQL query languages.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account to start queries in linked source accounts. For more information, see CloudWatch cross-account observability.

## Request Syntax

```
{
   "maxItems": number,
   "nextToken": "string",
   "queryId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**maxItems**

The maximum number of log events to return in the response. The maximum is 10,000 log events per request. You can retrieve up to 100,000 log event results from a query by paginating with the `nextToken`.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

**nextToken**

The token for the next set of items to return. The token expires after 1 hour.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**queryId**

The ID number of the query.

Type: String

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

Required: Yes

## Response Syntax

```
{
   "encryptionKey": "string",
   "nextToken": "string",
   "queryLanguage": "string",
   "results": [
      [
         {
            "field": "string",
```

```
            "value": "string"
         }
      ]
   ],
   "statistics": {
      "bytesScanned": number,
      "estimatedBytesSkipped": number,
      "estimatedRecordsSkipped": number,
      "logGroupsScanned": number,
      "recordsMatched": number,
      "recordsScanned": number,
      "resultCount": number
   },
   "status": "string"
}
```

## Response Elements

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

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

**encryptionKey**

If you associated an AWS KMS key with the CloudWatch Logs Insights query results in this account, this field displays the ARN of the key that's used to encrypt the query results when StartQuery stores them.

Type: String

Length Constraints: Maximum length of 256.

**nextToken**

If there are more log events remaining in the results, the response includes a `nextToken`. You can use this token in a subsequent `GetQueryResults` request to get the next set of results. You can retrieve up to 100,000 log event results from a query by paginating with this token. This is only supported for Logs Insights QL and is currently not supported for PPL and SQL query languages.

Type: String

Length Constraints: Maximum length of 1024.

**queryLanguage**

The query language used for this query. For more information about the query languages that CloudWatch Logs supports, see Supported query languages.

Type: String

Valid Values: `CWLI | SQL | PPL`

**results**

The log events that matched the query criteria during the most recent time it ran.

The `results` value is an array of arrays. Each log event is one object in the top-level array. Each of these log event objects is an array of `field/value` pairs.

Type: Array of arrays of ResultField objects

**statistics**

Includes the number of log events scanned by the query, the number of log events that matched the query criteria, and the total number of bytes in the scanned log events. These values reflect the full raw results of the query.

Type: QueryStatistics object

**status**

The status of the most recent running of the query. Possible values are `Cancelled`, `Complete`, `Failed`, `Running`, `Scheduled`, `Timeout`, and `Unknown`.

Queries time out after 60 minutes of runtime. To avoid having your queries time out, reduce the time range being searched or partition your query into a number of queries.

Type: String

Valid Values: `Scheduled | Running | Complete | Failed | Cancelled | Timeout | Unknown`

## Errors

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

**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

# Examples

## Get results from a recent query

The following returns the results from a specified query.

### 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.GetQueryResults
{
   "queryId": "12ab3456-12ab-123a-789e-1234567890ab",
   "maxItems": 1000,
   "nextToken": "eEXAMPLEtoken"
}
```

## Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "results": [
        [
            {
                "field": "LogEvent1-field1-name",
                "value": "LogEvent1-field1-value"
            },
            {
                "field": "LogEvent1-field2-name",
                "value": "LogEvent1-field2-value"
            },
            ...
            {
                "field": "LogEvent1-fieldX-name",
                "value": "LogEvent1-fieldX-value"
            }
        ],
        [
            {
                "field": "LogEvent2-field1-name",
                "value": "LogEvent2-field1-value"
            },
            {
                "field": "LogEvent2-field2-name",
                "value": "LogEvent2-field2-value"
            },
            ...
            {
                "field": "LogEvent2-fieldX-name",
                "value": "LogEvent2-fieldX-value"
            }
        ],
        [
            {
                "field": "LogEventZ-field1-name",
                "value": "LogEventZ-field1-value"
            },
```

```
            {
                "field": "LogEventZ-field2-name",
                "value": "LogEventZ-field2-value"
            },
            ...
            {
                "field": "LogEventZ-fieldX-name",
                "value": "LogEventZ-fieldX-value"
            }
        ]
    ],
    "statistics": {
        "bytesScanned": 81349723,
        "recordsMatched": 360851,
        "recordsScanned": 610956
    },
    "status": "Complete",
    "nextToken": "eEXAMPLEtoken"
}
```

## See Also

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

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

# GetScheduledQuery

Retrieves details about a specific scheduled query, including its configuration, execution status, and metadata.

## Request Syntax

```
{
   "identifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**identifier**

The ARN or name of the scheduled query to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

Required: Yes

## Response Syntax

```
{
   "creationTime": number,
   "description": "string",
   "destinationConfiguration": {
      "lookupTableConfiguration": {
         "description": "string",
         "kmsKeyId": "string",
         "roleArn": "string",
         "tableName": "string",
         "tags": {
            "string" : "string"
         }
```

```
      },
      "s3Configuration": {
         "destinationIdentifier": "string",
         "kmsKeyId": "string",
         "ownerAccountId": "string",
         "roleArn": "string"
      }
   },
   "endTimeOffset": number,
   "executionRoleArn": "string",
   "lastExecutionStatus": "string",
   "lastTriggeredTime": number,
   "lastUpdatedTime": number,
   "logGroupIdentifiers": [ "string" ],
   "name": "string",
   "queryLanguage": "string",
   "queryString": "string",
   "scheduledQueryArn": "string",
   "scheduleEndTime": number,
   "scheduleExpression": "string",
   "scheduleStartTime": number,
   "scheduleType": "string",
   "startTimeOffset": number,
   "state": "string",
   "timezone": "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.

### creationTime

The timestamp when the scheduled query was created.

Type: Long

Valid Range: Minimum value of 0.

### description

The description of the scheduled query.

Type: String

Length Constraints: Maximum length of 1024.

**destinationConfiguration**

Configuration for where query results are delivered.

Type: DestinationConfiguration object

**endTimeOffset**

The time offset in seconds that defines the end of the lookback period for the query.

Type: Long

**executionRoleArn**

The ARN of the IAM role used to execute the query and deliver results.

Type: String

Length Constraints: Minimum length of 1.

**lastExecutionStatus**

The status of the most recent execution of the scheduled query.

Type: String

Valid Values: `Running | InvalidQuery | Complete | Failed | Timeout`

**lastTriggeredTime**

The timestamp when the scheduled query was last executed.

Type: Long

Valid Range: Minimum value of 0.

**lastUpdatedTime**

The timestamp when the scheduled query was last updated.

Type: Long

Valid Range: Minimum value of 0.

**logGroupIdentifiers**

The log groups queried by the scheduled query.

Type: Array of strings

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

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

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

**name**

The name of the scheduled query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

**queryLanguage**

The query language used by the scheduled query.

Type: String

Valid Values: `CWLI | SQL | PPL`

**queryString**

The query string executed by the scheduled query.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10000.

**scheduledQueryArn**

The ARN of the scheduled query.

Type: String

**scheduleEndTime**

The end time for the scheduled query in Unix epoch format.

Type: Long

Valid Range: Minimum value of 0.

**scheduleExpression**

The cron expression that defines when the scheduled query runs.

Type: String

Length Constraints: Maximum length of 256.

**scheduleStartTime**

The start time for the scheduled query in Unix epoch format.

Type: Long

Valid Range: Minimum value of 0.

**scheduleType**

The schedule type of the scheduled query. Valid values are `CUSTOMER_MANAGED` and `AWS_MANAGED`.

Type: String

Valid Values: `CUSTOMER_MANAGED | AWS_MANAGED`

**startTimeOffset**

The time offset in seconds that defines the lookback period for the query.

Type: Long

**state**

The current state of the scheduled query.

Type: String

Valid Values: `ENABLED | DISABLED`

**timezone**

The timezone used for evaluating the schedule expression.

Type: String

Length Constraints: Minimum length of 1.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# GetScheduledQueryHistory

Retrieves the execution history of a scheduled query within a specified time range, including query results and destination processing status.

## Request Syntax

```
{
   "endTime": number,
   "executionStatuses": [ "string" ],
   "identifier": "string",
   "maxResults": number,
   "nextToken": "string",
   "startTime": number
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**endTime**

The end time for the history query in Unix epoch format.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

**executionStatuses**

An array of execution statuses to filter the history results. Only executions with the specified statuses are returned.

Type: Array of strings

Valid Values: `Running | InvalidQuery | Complete | Failed | Timeout`

Required: No

**identifier**

The ARN or name of the scheduled query to retrieve history for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

Required: Yes

**maxResults**

The maximum number of history records to return. Valid range is 1 to 1000.

Type: Integer

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

Required: No

**nextToken**

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

**startTime**

The start time for the history query in Unix epoch format.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

## Response Syntax

```
{
```

```
   "name": "string",
   "nextToken": "string",
   "scheduledQueryArn": "string",
   "triggerHistory": [
      {
         "destinations": [
            {
               "destinationIdentifier": "string",
               "destinationType": "string",
               "errorMessage": "string",
               "processedIdentifier": "string",
               "status": "string"
            }
         ],
         "errorMessage": "string",
         "executionStatus": "string",
         "queryId": "string",
         "triggeredTimestamp": 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.

**name**

The name of the scheduled query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**scheduledQueryArn**

The ARN of the scheduled query.

Type: String

**triggerHistory**

An array of execution history records for the scheduled query.

Type: Array of TriggerHistoryRecord objects

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# GetStorageTierPolicy

Returns the storage tier policy for the account.

## Response Syntax

```
{
   "lastUpdatedTime": number,
   "storageTier": "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.

**lastUpdatedTime**

The time when the storage tier policy was last updated, expressed as the number of milliseconds after `January 1, 1970 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

**storageTier**

The current storage tier for the account.

Type: String

Valid Values: `STANDARD | INTELLIGENT_TIERING`

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# GetTransformer

Returns the information about the log transformer associated with this log group.

This operation returns data only for transformers created at the log group level. To get information for an account-level transformer, use DescribeAccountPolicies.

## Request Syntax

```
{
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### logGroupIdentifier

Specify either the name or ARN of the log group to return transformer information for. If the log group is in a source account and you are using a monitoring account, you must use the log group ARN.

Type: String

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

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

Required: Yes

## Response Syntax

```
{
   "creationTime": number,
   "lastModifiedTime": number,
   "logGroupIdentifier": "string",
   "transformerConfig": [
      {
```

```
      "addKeys": {
         "entries": [
            {
               "key": "string",
               "overwriteIfExists": boolean,
               "value": "string"
            }
         ]
      },
      "copyValue": {
         "entries": [
            {
               "overwriteIfExists": boolean,
               "source": "string",
               "target": "string"
            }
         ]
      },
      "csv": {
         "columns": [ "string" ],
         "delimiter": "string",
         "destination": "string",
         "quoteCharacter": "string",
         "source": "string"
      },
      "dateTimeConverter": {
         "locale": "string",
         "matchPatterns": [ "string" ],
         "source": "string",
         "sourceTimezone": "string",
         "target": "string",
         "targetFormat": "string",
         "targetTimezone": "string"
      },
      "deleteKeys": {
         "withKeys": [ "string" ]
      },
      "grok": {
         "match": "string",
         "source": "string"
      },
      "listToMap": {
         "flatten": boolean,
         "flattenedElement": "string",
```

```
            "key": "string",
            "source": "string",
            "target": "string",
            "valueKey": "string"
         },
         "lowerCaseString": {
            "withKeys": [ "string" ]
         },
         "moveKeys": {
            "entries": [
               {
                  "overwriteIfExists": boolean,
                  "source": "string",
                  "target": "string"
               }
            ]
         },
         "parseCloudfront": {
            "source": "string"
         },
         "parseJSON": {
            "destination": "string",
            "source": "string"
         },
         "parseKeyValue": {
            "destination": "string",
            "fieldDelimiter": "string",
            "keyPrefix": "string",
            "keyValueDelimiter": "string",
            "nonMatchValue": "string",
            "overwriteIfExists": boolean,
            "source": "string"
         },
         "parsePostgres": {
            "source": "string"
         },
         "parseRoute53": {
            "source": "string"
         },
         "parseToOCSF": {
            "eventSource": "string",
            "mappingVersion": "string",
            "ocsfVersion": "string",
            "source": "string"
```

```
      },
      "parseVPC": {
         "source": "string"
      },
      "parseWAF": {
         "source": "string"
      },
      "renameKeys": {
         "entries": [
            {
               "key": "string",
               "overwriteIfExists": boolean,
               "renameTo": "string"
            }
         ]
      },
      "splitString": {
         "entries": [
            {
               "delimiter": "string",
               "source": "string"
            }
         ]
      },
      "substituteString": {
         "entries": [
            {
               "from": "string",
               "source": "string",
               "to": "string"
            }
         ]
      },
      "trimString": {
         "withKeys": [ "string" ]
      },
      "typeConverter": {
         "entries": [
            {
               "key": "string",
               "type": "string"
            }
         ]
      },
```

```
         "upperCaseString": {
            "withKeys": [ "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.

**creationTime**

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

Type: Long

Valid Range: Minimum value of 0.

**lastModifiedTime**

The date and time when this transformer was most recently modified, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

**logGroupIdentifier**

The ARN of the log group that you specified in your request.

Type: String

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

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

**transformerConfig**

This sructure contains the configuration of the requested transformer.

Type: Array of Processor objects

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

## Errors

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

**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

## See Also

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

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

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

# ListAggregateLogGroupSummaries

Returns an aggregate summary of all log groups in the Region grouped by specified data source characteristics. Supports optional filtering by log group class, name patterns, and data sources. If you perform this action in a monitoring account, you can also return aggregated summaries of log groups from source accounts that are linked to the monitoring account. For more information about using cross-account observability to set up monitoring accounts and source accounts, see CloudWatch cross-account observability.

The operation aggregates log groups by data source name and type and optionally format, providing counts of log groups that share these characteristics. The operation paginates results. By default, it returns up to 50 results and includes a token to retrieve more results.

## Request Syntax

```
{
   "accountIdentifiers": [ "string" ],
   "dataSources": [
      {
         "name": "string",
         "type": "string"
      }
   ],
   "groupBy": "string",
   "includeLinkedAccounts": boolean,
   "limit": number,
   "logGroupClass": "string",
   "logGroupNamePattern": "string",
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**accountIdentifiers**

When `includeLinkedAccounts` is set to `true`, use this parameter to specify the list of accounts to search. You can specify as many as 20 account IDs in the array.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Length Constraints: Fixed length of 12.

Pattern: `^\d{12}$`

Required: No

**dataSources**

Filters the results by data source characteristics to include only log groups associated with the specified data sources.

Type: Array of DataSourceFilter objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

**groupBy**

Specifies how to group the log groups in the summary.

Type: String

Valid Values: `DATA_SOURCE_NAME_TYPE_AND_FORMAT | DATA_SOURCE_NAME_AND_TYPE`

Required: Yes

**includeLinkedAccounts**

If you are using a monitoring account, set this to `true` to have the operation return log groups in the accounts listed in `accountIdentifiers`.

If this parameter is set to `true` and `accountIdentifiers` contains a null value, the operation returns all log groups in the monitoring account and all log groups in all source accounts that are linked to the monitoring account.

The default for this parameter is `false`.

Type: Boolean

Required: No

### limit

The maximum number of aggregated summaries to return. If you omit this parameter, the default is up to 50 aggregated summaries.

Type: Integer

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

Required: No

### logGroupClass

Filters the results by log group class to include only log groups of the specified class.

Type: String

Valid Values: `STANDARD | INFREQUENT_ACCESS | DELIVERY`

Required: No

### logGroupNamePattern

Use this parameter to limit the returned log groups to only those with names that match the pattern that you specify. This parameter is a regular expression that can match prefixes and substrings, and supports wildcard matching and matching multiple patterns, as in the following examples.

- Use ^ to match log group names by prefix.
- For a substring match, specify the string to match. All matches are case sensitive
- To match multiple patterns, separate them with a | as in the example `^/aws/lambda|discovery`

You can specify as many as five different regular expression patterns in this field, each of which must be between 3 and 24 characters. You can include the ^ symbol as many as five times, and include the | symbol as many as four times.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 129.

Pattern: `(\^?[\.\-_\/#A-Za-z0-9]{3,24})(\|\^?[\.\-_\/#A-Za-z0-9]{3,24}){0,4}`

Required: No

**nextToken**

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

```
{
   "aggregateLogGroupSummaries": [
      {
         "groupingIdentifiers": [
            {
               "key": "string",
               "value": "string"
            }
         ],
         "logGroupCount": 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.

**aggregateLogGroupSummaries**

The list of aggregate log group summaries grouped by the specified data source characteristics.

Type: Array of AggregateLogGroupSummary objects

**nextToken**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# ListAnomalies

Returns a list of anomalies that log anomaly detectors have found. For details about the structure format of each anomaly object that is returned, see the example in this section.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**anomalyDetectorArn**

Use this to optionally limit the results to only the anomalies found by a certain anomaly detector.

Type: String

Length Constraints: Minimum length of 1.

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

Required: No

**limit**

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

Type: Integer

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

Required: No

**nextToken**

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

**suppressionState**

You can specify this parameter if you want to the operation to return only anomalies that are currently either suppressed or unsuppressed.

Type: String

Valid Values: SUPPRESSED | UNSUPPRESSED

Required: No

## Response Syntax

```
{
   "anomalies": [
      {
         "active": boolean,
         "anomalyDetectorArn": "string",
         "anomalyId": "string",
         "description": "string",
         "firstSeen": number,
         "histogram": {
            "string" : number
         },
         "isPatternLevelSuppression": boolean,
         "lastSeen": number,
         "logGroupArnList": [ "string" ],
         "logSamples": [
            {
               "message": "string",
               "timestamp": number
            }
         ],
```

```
         "patternId": "string",
         "patternRegex": "string",
         "patternString": "string",
         "patternTokens": [
            {
               "dynamicTokenPosition": number,
               "enumerations": {
                  "string" : number
               },
               "inferredTokenName": "string",
               "isDynamic": boolean,
               "tokenString": "string"
            }
         ],
         "priority": "string",
         "state": "string",
         "suppressed": boolean,
         "suppressedDate": number,
         "suppressedUntil": 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.

**anomalies**

An array of structures, where each structure contains information about one anomaly that a log anomaly detector has found.

Type: Array of Anomaly objects

**nextToken**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## Examples

### To retrieve a list of anomalies found by logs anomaly detectors

This example illustrates one usage of ListAnomalies.

**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.ListAnomalies
{
   "anomalyDetectorArn": "arn:aws:logs:us-west-1:123456789012:anomaly-
detector:EXAMPLE-1234-5678-abcd-111111111111",
   "limit": 50,
}
```

### Sample Response

```
{
    "anomalies": [
        {
            "active": false,
            "anomalyDetectorArn": "arn:aws:logs:us-west-1:123456789012:anomaly-
detector:EXAMPLE-1234-5678-abcd-111111111111",
            "anomalyId": "EXAMPLE-529d-4e1e-bea9-123EXAMPLE",
            "description": "Count of ErrorCode: 200 at token: 9 deviated expected by:
 20.00%",
            "firstSeen": 1698488280000,
            "histogram": {
                "1698487995000": 2,
                "1698488285000": 4,
                "1698488295000": 1,
                "1698488300000": 1,
                "1698488305000": 4
            },
            "isPatternLevelSuppression": false,
            "lastSeen": 1698488580000,
            "logGroupArnList": [
                "arn:aws:logs:us-east-1:123456789012:log-group:/aws/lambda/my-log-
group-name"
            ],
            "logSamples": [
                {
                    "message": "2023-10-28T10:18:18.959Z\EXAMPLE-4e26-41d8-8b54-EXAMPLE
\tINFO\tResponse: 200 https://global.console.aws.amazon.com/EXAMPLEURL",
                    "timestamp": 1698488298959
                }
            ],
            "patternId": "EXAMPLE86827f77073836412345678",
```

```
            "patternRegex": ".*\\Q\t\\E.*\\Q\tINFO\tResponse: \\E.*\\Q https:\\E.*\\Q=\
\E.*\\Q=\\E.*\\Q=\\E.*\\Q\n\\E",
            "patternString": "<*>\t<*>\tINFO\tResponse: <*> https:<*>=<*>=<*>=<*>\n",
            "patternTokens": [
                {
                    "dynamicTokenPosition": 1,
                    "enumerations": {
                        "2023-10-28T10:18:08.420Z": 2,
                        "2023-10-28T10:18:18.959Z": 1,
                        "2023-10-28T10:18:20.260Z": 1,
                        "2023-10-28T10:18:25.440Z": 1,
                        "2023-10-28T10:18:27.508Z": 1
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\t"
                },
                {
                    "dynamicTokenPosition": 2,
                    "enumerations": {
                        "4766bcdd-4e26-41d8-8b54-fa0ae43f6201": 6
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\t"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "INFO"
                },
                {
                    "dynamicTokenPosition": 0,
```

```
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\t"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "Response"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": ":"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": " "
                },
                {
                    "dynamicTokenPosition": 3,
                    "enumerations": {
                        "200": 6
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": " "
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "https"
                },
                {
                    "dynamicTokenPosition": 0,
```

```
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": ":"
                },
                {
                    "dynamicTokenPosition": 4,
                    "enumerations": {
                        "//global.console.aws.amazon.com/EXAMPLEURL": 1,
                        "//prod.EXAMPLEURL2": 5
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "="
                },
                {
                    "dynamicTokenPosition": 5,
                    "enumerations": {
                        "%40amzn%2Faws-ccx-regions-availability&majorVersion": 1,
                        "info&message": 5
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "="
                },
                {
                    "dynamicTokenPosition": 6,
                    "enumerations": {
                        "1&versionId": 1,
                        "checkForCookieConsent&payload": 3,
                        "geolocationLatency&payload": 1,
                        "uiMounted&payload": 1
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
```

```
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "="
                },
               {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\n"
                }
            ],
            "priority": "LOW",
            "state": "Active",
            "suppressed": false,
            "suppressedDate": 0,
            "suppressedUntil": 0
        },
        {
            "active": false,
            "anomalyDetectorArn": "arn:aws:logs:us-west-1:123456789012:anomaly-
detector:EXAMPLE-1234-5678-abcd-111111111111",
            "anomalyId": "EXAMPLE-09d4-4286-9cd3-EXAMPLE",
            "description": "Count of ErrorCode: 200 at token: 9 deviated expected by:
 95.12%",
            "firstSeen": 1698392040000,
            "histogram": {
                "1698392035000": 17,
                "1698392040000": 5
            },
            "isPatternLevelSuppression": true,
            "lastSeen": 1698392340000,
            "logGroupArnList": [
                "arn:aws:logs:us-east-1:123456789012:log-group:another-log-group"
            ],
            "logSamples": [
                {
                    "message": "2023-10-27T07:33:56.178Z\tb3c81837-
ead3-46ac-9334-68fa05453033\tINFO\tResponse: 200 https://EXAMPLE-URL-2",
                    "timestamp": 1698392036178
                }
            ],
```

```
            "patternId": "9f2e9e2844e41728651fb229351c90e0",
            "patternRegex": ".*\\Q\t\\E.*\\Q\tINFO\tResponse: \\E.*\\Q https:\\E.*\\Q\n
\\E",
            "patternString": "<*>\t<*>\tINFO\tResponse: <*> https:<*>\n",
            "patternTokens": [
                {
                    "dynamicTokenPosition": 1,
                    "enumerations": {
                        "2023-10-27T07:33:56.238Z": 1,
                        "2023-10-27T07:33:56.253Z": 1,
                        "2023-10-27T07:33:56.274Z": 1,
                        "2023-10-27T07:33:56.295Z": 1,
                        "2023-10-27T07:34:01.929Z": 1
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\t"
                },
                {
                    "dynamicTokenPosition": 2,
                    "enumerations": {
                        "b3c81837-ead3-46ac-9334-68fa05453033": 22
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\t"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "INFO"
                },
                {
```

```
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "\t"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "Response"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": ":"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": " "
                },
                {
                    "dynamicTokenPosition": 3,
                    "enumerations": {
                        "200": 22
                    },
                    "isDynamic": true,
                    "tokenString": "<*>"
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": " "
                },
                {
                    "dynamicTokenPosition": 0,
                    "enumerations": {},
                    "isDynamic": false,
                    "tokenString": "https"
                },
                {
```

```
                "dynamicTokenPosition": 0,
                "enumerations": {},
                "isDynamic": false,
                "tokenString": ":"
            },
            {
                "dynamicTokenPosition": 4,
                "enumerations": {
                    "//EXAMPLE-URL-1": 12,
                    "//EXAMPLE-URL-2": 1,
                    "//EXAMPLE-URL-2": 6,
                    "//EXAMPLE-URL-3": 3
                },
                "isDynamic": true,
                "tokenString": "<*>"
            },
            {
                "dynamicTokenPosition": 0,
                "enumerations": {},
                "isDynamic": false,
                "tokenString": "\n"
            }
        ],
        "priority": "LOW",
        "state": "Active",
        "suppressed": true,
        "suppressedDate": 0,
        "suppressedUntil": 1702393208766
    },
```

## See Also

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

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

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

# ListIntegrations

Returns a list of integrations between CloudWatch Logs and other services in this account. Currently, only one integration can be created in an account, and this integration must be with OpenSearch Service.

## Request Syntax

```
{
   "integrationNamePrefix": "string",
   "integrationStatus": "string",
   "integrationType": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**integrationNamePrefix**

To limit the results to integrations that start with a certain name prefix, specify that name prefix here.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

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

Required: No

**integrationStatus**

To limit the results to integrations with a certain status, specify that status here.

Type: String

Valid Values: `PROVISIONING | ACTIVE | FAILED`

Required: No

**integrationType**

To limit the results to integrations of a certain type, specify that type here.

Type: String

Valid Values: OPENSEARCH

Required: No

## Response Syntax

```
{
   "integrationSummaries": [
      {
         "integrationName": "string",
         "integrationStatus": "string",
         "integrationType": "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.

**integrationSummaries**

An array, where each object in the array contains information about one CloudWatch Logs integration in this account.

Type: Array of IntegrationSummary objects

## Errors

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

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

# ListLogAnomalyDetectors

Retrieves a list of the log anomaly detectors in the account.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**filterLogGroupArn**

Use this to optionally filter the results to only include anomaly detectors that are associated with the specified log group.

Type: String

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

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

Required: No

**limit**

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

Type: Integer

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

Required: No

**nextToken**

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

```
{
   "anomalyDetectors": [
      {
         "anomalyDetectorArn": "string",
         "anomalyDetectorStatus": "string",
         "anomalyVisibilityTime": number,
         "creationTimeStamp": number,
         "detectorName": "string",
         "evaluationFrequency": "string",
         "filterPattern": "string",
         "kmsKeyId": "string",
         "lastModifiedTimeStamp": number,
         "logGroupArnList": [ "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.

**anomalyDetectors**

An array of structures, where each structure in the array contains information about one anomaly detector.

Type: Array of AnomalyDetector objects

**nextToken**

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

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

# ListLogGroups

Returns a list of log groups in the Region in your account. If you are performing this action in a monitoring account, you can choose to also return log groups from source accounts that are linked to the monitoring account. For more information about using cross-account observability to set up monitoring accounts and source accounts, see CloudWatch cross-account observability.

You can optionally filter the results by log group class, log group name pattern, field indexes, data sources, field index names, or log group tags. If you specify more than one filter type, the results include log groups that satisfy all filters.

This operation is paginated. By default, your first use of this operation returns 50 results, and includes a token to use in a subsequent operation to return more results.

## Request Syntax

```
{
   "accountIdentifiers": [ "string" ],
   "dataSources": [
      {
         "name": "string",
         "type": "string"
      }
   ],
   "fieldIndexNames": [ "string" ],
   "includeLinkedAccounts": boolean,
   "limit": number,
   "logGroupClass": "string",
   "logGroupNamePattern": "string",
   "logGroupTags": [
      {
         "key": "string",
         "values": [ "string" ]
      }
   ],
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**accountIdentifiers**

When `includeLinkedAccounts` is set to `true`, use this parameter to specify the list of accounts to search. You can specify as many as 20 account IDs in the array.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Length Constraints: Fixed length of 12.

Pattern: `^\d{12}$`

Required: No

**dataSources**

An array of data source filters to filter log groups by their associated data sources. You can filter by data source name, type, or both. Multiple filters within the same dimension are combined with OR logic, while filters across different dimensions are combined with AND logic.

Type: Array of DataSourceFilter objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

**fieldIndexNames**

An array of field index names to filter log groups that have specific field indexes. Only log groups containing all specified field indexes are returned. You can specify 1 to 20 field index names, each with 1 to 512 characters.

Type: Array of strings

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

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

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

Required: No

**includeLinkedAccounts**

If you are using a monitoring account, set this to `true` to have the operation return log groups in the accounts listed in `accountIdentifiers`.

If this parameter is set to `true` and `accountIdentifiers` contains a null value, the operation returns all log groups in the monitoring account and all log groups in all source accounts that are linked to the monitoring account.

The default for this parameter is `false`.

Type: Boolean

Required: No

**limit**

The maximum number of log groups to return. If you omit this parameter, the default is up to 50 log groups.

Type: Integer

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

Required: No

**logGroupClass**

Use this parameter to limit the results to only those log groups in the specified log group class. If you omit this parameter, log groups of all classes can be returned.

Type: String

Valid Values: `STANDARD | INFREQUENT_ACCESS | DELIVERY`

Required: No

**logGroupNamePattern**

Use this parameter to limit the returned log groups to only those with names that match the pattern that you specify. This parameter is a regular expression that can match prefixes and substrings, and supports wildcard matching and matching multiple patterns, as in the following examples.

- Use ^ to match log group names by prefix.

- For a substring match, specify the string to match. All matches are case sensitive
- To match multiple patterns, separate them with a | as in the example `^/aws/lambda|discovery`

You can specify as many as five different regular expression patterns in this field, each of which must be between 3 and 24 characters. You can include the ^ symbol as many as five times, and include the | symbol as many as four times.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 129.

Pattern: `(\^?[\.\-_\/#A-Za-z0-9]{3,24})(\|\^?[\.\-_\/#A-Za-z0-9]{3,24}){0,4}`

Required: No

**logGroupTags**

An array of tag filters to return only log groups that have specific tags. Multiple filters are combined with AND logic.

Type: Array of TagFilter objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

**nextToken**

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

```
{
   "logGroups": [
      {
```

```
            "logGroupArn": "string",
            "logGroupClass": "string",
            "logGroupName": "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.

**logGroups**

An array of structures, where each structure contains the information about one log group.

Type: Array of LogGroupSummary objects

**nextToken**

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 Error Types.

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

# ListLogGroupsForQuery

Returns a list of the log groups that were analyzed during a single CloudWatch Logs Insights query. This can be useful for queries that use log group name prefixes or the `filterIndex` command, because the log groups are dynamically selected in these cases.

For more information about field indexes, see Create field indexes to improve query performance and reduce costs.

## Request Syntax

```
{
   "maxResults": number,
   "nextToken": "string",
   "queryId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**maxResults**

Limits the number of returned log groups to the specified number.

Type: Integer

Valid Range: Minimum value of 50. Maximum value of 500.

Required: No

**nextToken**

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

**queryId**

The ID of the query to use. This query ID is from the response to your StartQuery operation.

Type: String

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

Required: Yes

## Response Syntax

```
{
   "logGroupIdentifiers": [ "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.

**logGroupIdentifiers**

An array of the names and ARNs of the log groups that were processed in the query.

Type: Array of strings

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

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

**nextToken**

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

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

## Examples

### To list the log groups that were analyzed during a specific query

The following examplereturns the log groups that were analyzed during the query with the `71bacb5a-30f1-4ed6-9959-2797EXAMPLE` ID.

**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.ListLogGroupsForQuery
{
  "queryId": "71bacb5a-30f1-4ed6-9959-2797EXAMPLE"
}
```

### Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "logGroupIdentifiers": [
    "arn:aws:logs:us-east-1:112233445566:log-group:/aws/lambda/applogs",
    "arn:aws:logs:us-east-1:112233445566:log-group:/aws/lambda/servicelogs",
    "arn:aws:logs:us-east-1:112233445566:log-group:/aws/lambda/errorlogs"
  ]
}
```

## See Also

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

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

- AWS SDK for Ruby V3

# ListScheduledQueries

Lists all scheduled queries in your account and region. You can filter results by state to show only enabled or disabled queries.

## Request Syntax

```
{
   "maxResults": number,
   "nextToken": "string",
   "scheduleType": "string",
   "state": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**maxResults**

The maximum number of scheduled queries to return. Valid range is 1 to 1000.

Type: Integer

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

Required: No

**nextToken**

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

**scheduleType**

Filter scheduled queries by schedule type. Valid values are `CUSTOMER_MANAGED` and `AWS_MANAGED`. If not specified, scheduled queries of all schedule types are returned.

Type: String

Valid Values: `CUSTOMER_MANAGED | AWS_MANAGED`

Required: No

**state**

Filter scheduled queries by state. Valid values are `ENABLED` and `DISABLED`. If not specified, all scheduled queries are returned.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

## Response Syntax

```
{
   "nextToken": "string",
   "scheduledQueries": [
      {
         "creationTime": number,
         "destinationConfiguration": {
            "lookupTableConfiguration": {
               "description": "string",
               "kmsKeyId": "string",
               "roleArn": "string",
               "tableName": "string",
               "tags": {
                  "string" : "string"
               }
            },
            "s3Configuration": {
               "destinationIdentifier": "string",
               "kmsKeyId": "string",
               "ownerAccountId": "string",
               "roleArn": "string"
            }
         },
         "lastExecutionStatus": "string",
         "lastTriggeredTime": number,
         "lastUpdatedTime": number,
```

```
            "name": "string",
            "scheduledQueryArn": "string",
            "scheduleExpression": "string",
            "scheduleType": "string",
            "state": "string",
            "timezone": "string"
        }
    ]
}
```

## Response Elements

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

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

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**scheduledQueries**

An array of scheduled query summary information.

Type: Array of ScheduledQuerySummary objects

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# ListSourcesForS3TableIntegration

Returns a list of data source associations for a specified S3 Table Integration, showing which data sources are currently associated for query access.

## Request Syntax

```
{
   "integrationArn": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**integrationArn**

The Amazon Resource Name (ARN) of the S3 Table Integration to list associations for.

Type: String

Required: Yes

**maxResults**

The maximum number of associations to return in a single call. Valid range is 1 to 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**nextToken**

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",
   "sources": [
      {
         "createdTimeStamp": number,
         "dataSource": {
            "name": "string",
            "type": "string"
         },
         "identifier": "string",
         "parentSourceIdentifier": "string",
         "status": "string",
         "statusReason": "string"
      }
   ]
}
```

## Response Elements

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

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

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**sources**

The list of data source associations for the specified S3 Table Integration.

Type: Array of S3TableIntegrationSource objects

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# ListSyslogConfigurations

Returns a list of syslog configurations. You can optionally filter the results by log group or VPC endpoint.

## Request Syntax

```
{
   "logGroupIdentifier": "string",
   "maxResults": number,
   "nextToken": "string",
   "vpcEndpointId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

The name or ARN of the log group to filter syslog configurations for.

Type: String

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

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

Required: No

**maxResults**

The maximum number of syslog configurations to return in the response.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 50.

Required: No

**nextToken**

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

**vpcEndpointId**

The ID of the VPC endpoint to filter syslog configurations for.

Type: String

Pattern: `^vpce-[0-9a-f]{1,64}$`

Required: No

## Response Syntax

```
{
   "nextToken": "string",
   "syslogConfigurations": [
      {
         "createdAt": number,
         "logGroupArn": "string",
         "sourceType": "string",
         "vpcEndpointId": "string"
      }
   ]
}
```

## Response Elements

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

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

**nextToken**

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

Type: String

Length Constraints: Minimum length of 1.

**syslogConfigurations**

The list of syslog configurations.

Type: Array of SyslogConfiguration objects

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

# Examples

## To list syslog configurations

The following example lists the syslog configurations 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.ListSyslogConfigurations
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:my-syslog-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>
{
  "syslogConfigurations": [
    {
      "logGroupArn": "arn:aws:logs:us-east-1:123456789012:log-group:my-syslog-group",
      "sourceType": "VPCE",
      "vpcEndpointId": "vpce-0123456789abcdef0",
      "createdAt": 1718000000000
    }
  ]
```

```
}
```

## See Also

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

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

# ListTagsForResource

Displays the tags associated with a CloudWatch Logs resource. Currently, log groups and destinations support tagging.

## Request Syntax

```
{
   "resourceArn": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**resourceArn**

The ARN of the resource that you want to view tags for.

The ARN format of a log group is `arn:aws:logs:Region:account-id:log-group:log-group-name`

The ARN format of a destination is `arn:aws:logs:Region:account-id:destination:destination-name`

For more information about ARN format, see CloudWatch Logs resources and operations.

Type: String

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

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

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**

The list of tags associated with the requested resource.>

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: 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 Error Types.

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

# ListTagsLogGroup

*This action has been deprecated.*

> **Important**
>
> The ListTagsLogGroup operation is on the path to deprecation. We recommend that you use ListTagsForResource instead.

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.

The request accepts the following data in JSON format.

**logGroupName**

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 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**

The tags for the log group.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: 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 Error Types.

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

# PutAccountPolicy

Creates an account-level data protection policy, subscription filter policy, field index policy, transformer policy, or metric extraction policy that applies to all log groups, a subset of log groups, or a data source name and type combination in the account. Account-level policies are Region-specific: a policy applies only to log groups in the Region where you create it. To apply a policy across multiple Regions, create the policy separately in each Region.

> **Important**
>
> `PutAccountPolicy` is an account-wide administrative operation intended for CloudWatch Logs administrators. Because it affects all log groups (or a broad subset) in the account, you should grant `logs:PutAccountPolicy` permissions only to administrators who manage logging configuration across the account, not to application teams or individual log group owners.

### Conflict resolution between account-level and log-group-level policies

When both an account-level policy and a log-group-level policy of the same type apply to a log group, the resolution depends on the policy type:

- *Data protection* — The two policies are cumulative. Any sensitive term specified in either the account-level or the log-group-level policy is masked.
- *Subscription filters* — Account-level and log-group-level subscription filters are additive. A log group can have up to 1 account-level and up to 2 log-group-level subscription filters.
- *Transformers* — A log-group-level transformer overrides the account-level transformer. If a log group has its own transformer, it ignores the account-level transformer policy.
- *Field index policies* — If a log group has its own field index policy (created with `PutIndexPolicy`), any account-level policy that uses `LogGroupNamePrefix` selection criteria or has no selection criteria is ignored for that log group. However, account-level policies that use `DataSourceName` and `DataSourceType` selection criteria still apply alongside the log-group-level policy.
- *Metric extraction policies* — Metric extraction policies are account-level only and have no log-group-level equivalent, so no conflict resolution applies.

For field index policies, you can configure indexed fields as *facets* to enable interactive exploration of your logs. Facets provide value distributions and counts for indexed fields in the CloudWatch Logs Insights console without requiring query execution. For more information, see Use facets to group and explore logs.

To use this operation, you must be signed on with the correct permissions depending on the type of policy that you are creating.

- To create a data protection policy, you must have the `logs:PutDataProtectionPolicy` and `logs:PutAccountPolicy` permissions.
- To create a subscription filter policy, you must have the `logs:PutSubscriptionFilter` and `logs:PutAccountPolicy` permissions.
- To create a transformer policy, you must have the `logs:PutTransformer` and `logs:PutAccountPolicy` permissions.
- To create a field index policy, you must have the `logs:PutIndexPolicy` and `logs:PutAccountPolicy` permissions.
- To configure facets for field index policies, you must have the `logs:PutIndexPolicy` and `logs:PutAccountPolicy` permissions.
- To create a metric extraction policy, you must have the `logs:PutMetricExtractionPolicy` and `logs:PutAccountPolicy` permissions.

**Data protection policy**

A data protection policy can help safeguard sensitive data that's ingested by your log groups by auditing and masking the sensitive log data. Each account can have only one account-level data protection policy.

> **Important**
>
> Sensitive data is detected and masked when it is ingested into a log group. When you set a data protection policy, log events ingested into the log groups before that time are not masked.

If you use `PutAccountPolicy` to create a data protection policy for your whole account, it applies to both existing log groups and all log groups that are created later in this account. The account-

level policy is applied to existing log groups with eventual consistency. It might take up to 5 minutes before sensitive data in existing log groups begins to be masked.

By default, when a user views a log event that includes masked data, the sensitive data is replaced by asterisks. A user who has the `logs:Unmask` permission can use a GetLogEvents or FilterLogEvents operation with the `unmask` parameter set to `true` to view the unmasked log events. Users with the `logs:Unmask` can also view unmasked data in the CloudWatch Logs console by running a CloudWatch Logs Insights query with the `unmask` query command.

For more information, including a list of types of data that can be audited and masked, see Protect sensitive log data with masking.

To use the `PutAccountPolicy` operation for a data protection policy, you must be signed on with the `logs:PutDataProtectionPolicy` and `logs:PutAccountPolicy` permissions.

The `PutAccountPolicy` operation applies to all log groups in the account. You can use PutDataProtectionPolicy to create a data protection policy that applies to just one log group. If a log group has its own data protection policy and the account also has an account-level data protection policy, then the two policies are cumulative. Any sensitive term specified in either policy is masked.

**Subscription filter policy**

A subscription filter policy sets up a real-time feed of log events from CloudWatch Logs to other AWS services. Account-level subscription filter policies apply to both existing log groups and log groups that are created later in this account. Supported destinations are Kinesis Data Streams, Firehose, and Lambda. When log events are sent to the receiving service, they are Base64 encoded and compressed with the GZIP format.

The following destinations are supported for subscription filters:

- An Kinesis Data Streams data stream in the same account as the subscription policy, for same-account delivery.
- An Firehose data stream in the same account as the subscription policy, for same-account delivery.
- A Lambda function in the same account as the subscription policy, for same-account delivery.
- A logical destination in a different account created with PutDestination, for cross-account delivery. Kinesis Data Streams and Firehose are supported as logical destinations.

Each account can have one account-level subscription filter policy per Region. If you are updating an existing filter, you must specify the correct name in `PolicyName`. To perform a `PutAccountPolicy` subscription filter operation for any destination except a Lambda function, you must also have the `iam:PassRole` permission.

**Transformer policy**

Creates or updates a *log transformer policy* for your account. You use log transformers to transform log events into a different format, making them easier for you to process and analyze. You can also transform logs from different sources into standardized formats that contain relevant, source-specific information. After you have created a transformer, CloudWatch Logs performs this transformation at the time of log ingestion. You can then refer to the transformed versions of the logs during operations such as querying with CloudWatch Logs Insights or creating metric filters or subscription filters.

You can also use a transformer to copy metadata from metadata keys into the log events themselves. This metadata can include log group name, log stream name, account ID and Region.

A transformer for a log group is a series of processors, where each processor applies one type of transformation to the log events ingested into this log group. For more information about the available processors to use in a transformer, see Processors that you can use.

Having log events in standardized format enables visibility across your applications for your log analysis, reporting, and alarming needs. CloudWatch Logs provides transformation for common log types with out-of-the-box transformation templates for major AWS log sources such as VPC flow logs, Lambda, and Amazon RDS. You can use pre-built transformation templates or create custom transformation policies.

You can create transformers only for the log groups in the Standard log class.

You can have one account-level transformer policy that applies to all log groups in the account. Or you can create as many as 20 account-level transformer policies that are each scoped to a subset of log groups with the `selectionCriteria` parameter. If you have multiple account-level transformer policies with selection criteria, no two of them can use the same or overlapping log group name prefixes. For example, if you have one policy filtered to log groups that start with `my-log`, you can't have another transformer policy filtered to `my-logpprod` or `my-logging`.

You can also set up a transformer at the log-group level. For more information, see PutTransformer. If there is both a log-group level transformer created with `PutTransformer` and

an account-level transformer that could apply to the same log group, the log group uses only the log-group level transformer. It ignores the account-level transformer.

**Field index policy**

You can use field index policies to create indexes on fields found in log events for a log group or data source name and type combination. Creating field indexes can help lower the scan volume for CloudWatch Logs Insights queries that reference those fields, because these queries attempt to skip the processing of log events that are known to not match the indexed field. Good fields to index are fields that you often need to query for and fields or values that match only a small fraction of the total log events. Common examples of indexes include request ID, session ID, user IDs, or instance IDs. For more information, see Create field indexes to improve query performance and reduce costs

To find the fields that are in your log group events, use the GetLogGroupFields operation. To find the fields for a data source use the GetLogFields operation.

For example, suppose you have created a field index for `requestId`. Then, any CloudWatch Logs Insights query on that log group that includes `requestId = value` or `requestId in [value, value, ...]` will attempt to process only the log events where the indexed field matches the specified value.

Matches of log events to the names of indexed fields are case-sensitive. For example, an indexed field of `RequestId` won't match a log event containing `requestId`.

You can have one account-level field index policy that applies to all log groups in the account. Or you can create as many as 20 account-level field index policies that are each scoped to a subset of log groups using `LogGroupNamePrefix` with the `selectionCriteria` parameter. You can have another 20 account-level field index policies using `DataSourceName` and `DataSourceType` for the `selectionCriteria` parameter. If you have multiple account-level index policies with `LogGroupNamePrefix` selection criteria, no two of them can use the same or overlapping log group name prefixes. For example, if you have one policy filtered to log groups that start with *my-log*, you can't have another field index policy filtered to *my-logpprod* or *my-logging*. Similarly, if you have multiple account-level index policies with `DataSourceName` and `DataSourceType` selection criteria, no two of them can use the same data source name and type combination. For example, if you have one policy filtered to the data source name `amazon_vpc` and data source type `flow` you cannot create another policy with this combination.

If you create an account-level field index policy in a monitoring account in cross-account observability, the policy is applied only to the monitoring account and not to any source accounts.

CloudWatch Logs provides default field indexes for all log groups in the Standard log class. Default field indexes are automatically available for the following fields:

- `@logStream`
- `@aws.region`
- `@aws.account`
- `@source.log`
- `@data_source_name`
- `@data_source_type`
- `@data_format`
- `traceId`
- `severityText`
- `attributes.session.id`

CloudWatch Logs provides default field indexes for certain data source name and type combinations as well. Default field indexes are automatically available for the following data source name and type combinations as identified in the following list:

`amazon_vpc.flow`

- `action`
- `logStatus`
- `region`
- `flowDirection`
- `type`

`amazon_route53.resolver_query`

- `transport`
- `rcode`

`aws_waf.access`

- `action`

- `httpRequest.country`

`aws_cloudtrail.data`, `aws_cloudtrail.management`

- `eventSource`
- `eventName`
- `awsRegion`
- `userAgent`
- `errorCode`
- `eventType`
- `managementEvent`
- `readOnly`
- `eventCategory`
- `requestId`

Default field indexes are in addition to any custom field indexes you define within your policy. Default field indexes are not counted towards your field index quota.

If you want to create a field index policy for a single log group, you can use PutIndexPolicy instead of `PutAccountPolicy`. If you do so, that log group will use that log-group level policy and any account-level policies that match at the data source level; any account-level policy that matches at the log group level (for example, no selection criteria or log group name prefix selection criteria) will be ignored.

**Metric extraction policy**

A metric extraction policy controls whether CloudWatch Metrics can be created through the Embedded Metrics Format (EMF) for log groups in your account. By default, EMF metric creation is enabled for all log groups. You can use metric extraction policies to disable EMF metric creation for your entire account or specific log groups.

When a policy disables EMF metric creation for a log group, log events in the EMF format are still ingested, but no CloudWatch Metrics are created from them.

**Important**

Creating a policy disables metrics for AWS features that use EMF to create metrics, such as CloudWatch Container Insights and CloudWatch Application Signals. To prevent turning off those features by accident, we recommend that you exclude the underlying log-groups through a selection-criteria such as `LogGroupNamePrefix NOT IN ["/aws/containerinsights", "/aws/ecs/containerinsights", "/aws/application-signals/data"]`.

Each account can have either one account-level metric extraction policy that applies to all log groups, or up to 5 policies that are each scoped to a subset of log groups with the `selectionCriteria` parameter. The selection criteria supports filtering by `LogGroupName` and `LogGroupNamePrefix` using the operators `IN` and `NOT IN`. You can specify up to 50 values in each `IN` or `NOT IN` list.

The selection criteria can be specified in these formats:

```
LogGroupName IN ["log-group-1", "log-group-2"]
```

```
LogGroupNamePrefix NOT IN ["/aws/prefix1", "/aws/prefix2"]
```

If you have multiple account-level metric extraction policies with selection criteria, no two of them can have overlapping criteria. For example, if you have one policy with selection criteria `LogGroupNamePrefix IN ["my-log"]`, you can't have another metric extraction policy with selection criteria `LogGroupNamePrefix IN ["/my-log-prod"]` or `LogGroupNamePrefix IN ["/my-logging"]`, as the set of log groups matching these prefixes would be a subset of the log groups matching the first policy's prefix, creating an overlap.

When using `NOT IN`, only one policy with this operator is allowed per account.

When combining policies with `IN` and `NOT IN` operators, the overlap check ensures that policies don't have conflicting effects. Two policies with `IN` and `NOT IN` operators do not overlap if and only if every value in the `IN` policy is completely contained within some value in the `NOT IN` policy. For example:

- If you have a `NOT IN` policy for prefix `"/aws/lambda"`, you can create an `IN` policy for the exact log group name `"/aws/lambda/function1"` because the set of log groups matching `"/aws/lambda/function1"` is a subset of the log groups matching `"/aws/lambda"`.

- If you have a `NOT IN` policy for prefix `"/aws/lambda"`, you cannot create an `IN` policy for prefix `"/aws"` because the set of log groups matching `"/aws"` is not a subset of the log groups matching `"/aws/lambda"`.

## Request Syntax

```
{
   "policyDocument": "string",
   "policyName": "string",
   "policyType": "string",
   "scope": "string",
   "selectionCriteria": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**policyDocument**

Specify the policy, in JSON.

**Data protection policy**

A data protection policy must include two JSON blocks:

- The first block must include both a `DataIdentifer` array and an `Operation` property with an `Audit` action. The `DataIdentifer` array lists the types of sensitive data that you want to mask. For more information about the available options, see Types of data that you can mask.

  The `Operation` property with an `Audit` action is required to find the sensitive data terms. This `Audit` action must contain a `FindingsDestination` object. You can optionally use that `FindingsDestination` object to list one or more destinations to send audit findings to. If you specify destinations such as log groups, Firehose streams, and S3 buckets, they must already exist.
- The second block must include both a `DataIdentifer` array and an `Operation` property with an `Deidentify` action. The `DataIdentifer` array must exactly match the `DataIdentifer` array in the first block of the policy.

The `Operation` property with the `Deidentify` action is what actually masks the data, and it must contain the `"MaskConfig": {}` object. The `"MaskConfig": {}` object must be empty.

For an example data protection policy, see the **Examples** section on this page.

> **Important**
>
> The contents of the two `DataIdentifer` arrays must match exactly.

In addition to the two JSON blocks, the `policyDocument` can also include `Name`, `Description`, and `Version` fields. The `Name` is different than the operation's `policyName` parameter, and is used as a dimension when CloudWatch Logs reports audit findings metrics to CloudWatch.

The JSON specified in `policyDocument` can be up to 30,720 characters long.

**Subscription filter policy**

A subscription filter policy can include the following attributes in a JSON block:

- **DestinationArn** The ARN of the destination to deliver log events to. Supported destinations are:
  - An Kinesis Data Streams data stream in the same account as the subscription policy, for same-account delivery.
  - An Firehose data stream in the same account as the subscription policy, for same-account delivery.
  - A Lambda function in the same account as the subscription policy, for same-account delivery.
  - A logical destination in a different account created with PutDestination, for cross-account delivery. Kinesis Data Streams and Firehose are supported as logical destinations.
- **RoleArn** 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.
- **FilterPattern** A filter pattern for subscribing to a filtered stream of log events.

- **Distribution** 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 Kinesis Data Streams data stream.

**Transformer policy**

A transformer policy must include one JSON block with the array of processors and their configurations. For more information about available processors, see Processors that you can use.

**Field index policy**

A field index filter policy can include the following attribute in a JSON block:

- **Fields** The array of field indexes to create.
- **FieldsV2** The object of field indexes to create along with it's type.

It must contain at least one field index.

The following is an example of an index policy document that creates indexes with different types.

```
"policyDocument": "{ \"Fields\": [ \"TransactionId\" ], \"FieldsV2\":
{\"RequestId\": {\"type\": \"FIELD_INDEX\"}, \"APIName\": {\"type\":
\"FACET\"}, \"StatusCode\": {\"type\": \"FACET\"}}}"
```

You can use `FieldsV2` to specify the type for each field. Supported types are `FIELD_INDEX` and `FACET`. Field names within `Fields` and `FieldsV2` must be mutually exclusive.

Type: String

Required: Yes

**policyName**

A name for the policy. This must be unique within the account and cannot start with `aws/`.

Type: String

Required: Yes

**policyType**

The type of policy that you're creating or updating.

Type: String

Valid Values: `DATA_PROTECTION_POLICY | SUBSCRIPTION_FILTER_POLICY | FIELD_INDEX_POLICY | TRANSFORMER_POLICY | METRIC_EXTRACTION_POLICY`

Required: Yes

**scope**

Currently the only valid value for this parameter is `ALL`, which specifies that the data protection policy applies to all log groups in the account. If you omit this parameter, the default of `ALL` is used.

Type: String

Valid Values: `ALL`

Required: No

**selectionCriteria**

Use this parameter to apply the new policy to a subset of log groups in the account or a data source name and type combination.

Specifying `selectionCriteria` is valid only when you specify `SUBSCRIPTION_FILTER_POLICY`, `FIELD_INDEX_POLICY` or `TRANSFORMER_POLICY`for `policyType`.

- If `policyType` is `SUBSCRIPTION_FILTER_POLICY`, the only supported `selectionCriteria` filter is `LogGroupName NOT IN []`
- If `policyType` is `TRANSFORMER_POLICY`, the only supported `selectionCriteria` filter is `LogGroupNamePrefix`
- If `policyType` is `FIELD_INDEX_POLICY`, the supported `selectionCriteria` filters are:
  - `LogGroupNamePrefix`
  - `DataSourceName` AND `DataSourceType`

  When you specify `selectionCriteria` for a field index policy you can use either `LogGroupNamePrefix` by itself or `DataSourceName` and `DataSourceType` together.

The `selectionCriteria` string can be up to 25KB in length. The length is determined by using its UTF-8 bytes.

Using the `selectionCriteria` parameter with `SUBSCRIPTION_FILTER_POLICY` is useful to help prevent infinite loops. For more information, see Log recursion prevention.

Type: String

Required: No

## Response Syntax

```
{
   "accountPolicy": {
      "accountId": "string",
      "lastUpdatedTime": number,
      "policyDocument": "string",
      "policyName": "string",
      "policyType": "string",
      "scope": "string",
      "selectionCriteria": "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.

### accountPolicy

The account policy that you created.

Type: AccountPolicy object

## Errors

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

### 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 concurrent requests to update the same resource were in conflict.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

# Examples

## To create a log transformer policy

The following example creates a log transformer that applies to log groups have names that start with `test-`

### 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.PutAccountPolicy
{
    "policyName": "ExamplePolicy",
    "policyType": "TRANSFORMER_POLICY",
    "policyDocument": [
        {
```

```
            "parseJSON": {}
        },
        {
            "addKeys": {
                "entries": [
                    {
                        "key": "metadata.transformed_in",
                        "value": "CloudWatchLogs"
                    }
                ]
            }
        },
        {
            "trimString": {
                "withKeys": [
                    "status"
                ]
            }
        },
        {
            "lowerCaseString": {
                "withKeys": [
                    "status"
                ]
            }
        }
    ],
 "selectionCriteria": 'LogGroupNamePrefix= "test-"'
}
```

## To create a metric extraction policy

The following example creates a metric extraction policy that disables EMF metric creation for all log groups except Container Insights 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.PutAccountPolicy
{
    "policyName": "DisableEMFMetrics",
    "policyType": "METRIC_EXTRACTION_POLICY",
    "policyDocument": {
        "EmbeddedMetricFormat": {
            "Status": "Disabled"
        }
    },
    "selectionCriteria": 'LogGroupNamePrefix NOT IN ["/aws/containerinsights", "/aws/
ecs/containerinsights"]'
}
```

## To create an account-wide data protection policy

The following example creates an account-wide log group data protection policy.

### 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.PutAccountPolicy
{
    "policyName": "my_global_data_protection_policy",
    "policyType": "GLOBAL",
    "policyDocument": {
        "Description": "test description",
        "Version": "2021-06-01",
        "Statement": [
            {
```

```
                "Sid": "audit-policy test",
                "DataIdentifier": [
                    "arn:aws:dataprotection::aws:data-identifier/EmailAddress",
                    "arn:aws:dataprotection::aws:data-identifier/DriversLicense-US"
                ],
                "Operation": {
                    "Audit": {
                        "FindingsDestination": {
                            "CloudWatchLogs": {
                                "LogGroup": "EXISTING_LOG_GROUP_IN_YOUR_ACCOUNT"
                            },
                            "Firehose": {
                                "DeliveryStream": "EXISTING_STREAM_IN_YOUR_ACCOUNT"
                            },
                            "S3": {
                                "Bucket": "EXISTING_BUCKET"
                            }
                        }
                    }
                }
            },
            {
            {
                "Sid": "redact-policy",
                "DataIdentifier": [
                    "arn:aws:dataprotection::aws:data-identifier/EmailAddress",
                    "arn:aws:dataprotection::aws:data-identifier/DriversLicense-US"
                ],
                "Operation": {
                    "Deidentify": {
                        "MaskConfig": {}
                    }
                }
            }
        ]
    }
}
```

## To create an account-wide subscription filter policy

The following example creates an account-wide subscription filter policy that forwards log events containing the string ERROR to a Kinesis Data Streams stream. The policy applies to all log groups in the account except for `LogGroupToExclude1` and `LogGroupToExclude12`.

### 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.PutAccountPolicy
{
    "policyName": "ExamplePolicy",
    "policyType": "SUBSCRIPTION_FILTER_POLICY",
    "policyDocument": {
        "DestinationArn":"arn:aws:kinesis:region:111111111111:stream/TestStream",
        "RoleArn":"arn:aws:iam::111111111111:role/CWLtoKinesisRole",
        "FilterPattern": "ERROR",
        "Distribution": "Random"
    },
    "selectionCriteria": 'LogGroupName NOT IN ["LogGroupToExclude1",
 "LogGroupToExclude2"]'
}
```

## To create an account-wide field index policy

The following example creates an account-wide field index policy for log groups with names that start with `lambda`.

### 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.PutAccountPolicy
{
    "policyDocument": {
        "Fields": ["RequestId", "TransactionId"]
     },
    "policyName": "LambdaIndexPolicy",
    "policyType" : "FIELD_INDEX_POLICY",
    "scope" : "ALL",
    "selectionCriteria": 'LogGroupNamePrefix="lambda"'
}
```

## See Also

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

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

# PutBearerTokenAuthentication

Enables or disables bearer token authentication for the specified log group. When enabled on a log group, bearer token authentication is enabled on operations until it is explicitly disabled.

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

## Request Syntax

```
{
   "bearerTokenAuthenticationEnabled": boolean,
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**bearerTokenAuthenticationEnabled**

Whether to enable bearer token authentication.

Type: Boolean

Required: Yes

Type: Boolean

Required: Yes

**logGroupIdentifier**

The name or ARN of the log group.

Type: String

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

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

Required: Yes

Type: String

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

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

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

# Examples

## Sample Request

This example illustrates one usage of PutBearerTokenAuthentication.

### 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.PutBearerTokenAuthentication
          {
          "logGroupIdentifier": "my-log-group",
          "bearerTokenAuthenticationEnabled": true
          }
```

### Sample Response

```
HTTP/1.1 200 OK
          x-amzn-RequestId: <RequestId>
          Content-Type: application/x-amz-json-1.1
          Content-Length: 0
          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 V2

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

# PutDataProtectionPolicy

Creates a data protection policy for the specified log group. A data protection policy can help safeguard sensitive data that's ingested by the log group by auditing and masking the sensitive log data.

> **Important**
>
> Sensitive data is detected and masked when it is ingested into the log group. When you set a data protection policy, log events ingested into the log group before that time are not masked.

By default, when a user views a log event that includes masked data, the sensitive data is replaced by asterisks. A user who has the `logs:Unmask` permission can use a GetLogEvents or FilterLogEvents operation with the `unmask` parameter set to `true` to view the unmasked log events. Users with the `logs:Unmask` can also view unmasked data in the CloudWatch Logs console by running a CloudWatch Logs Insights query with the `unmask` query command.

For more information, including a list of types of data that can be audited and masked, see Protect sensitive log data with masking.

The `PutDataProtectionPolicy` operation applies to only the specified log group. You can also use PutAccountPolicy to create an account-level data protection policy that applies to all log groups in the account, including both existing log groups and log groups that are created level. If a log group has its own data protection policy and the account also has an account-level data protection policy, then the two policies are cumulative. Any sensitive term specified in either policy is masked.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

Specify either the log group name or log group ARN.

Type: String

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

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

Required: Yes

**policyDocument**

Specify the data protection policy, in JSON.

This policy must include two JSON blocks:

- The first block must include both a `DataIdentifer` array and an `Operation` property with an `Audit` action. The `DataIdentifer` array lists the types of sensitive data that you want to mask. For more information about the available options, see Types of data that you can mask.

  The `Operation` property with an `Audit` action is required to find the sensitive data terms. This `Audit` action must contain a `FindingsDestination` object. You can optionally use that `FindingsDestination` object to list one or more destinations to send audit findings to. If you specify destinations such as log groups, Firehose streams, and S3 buckets, they must already exist.
- The second block must include both a `DataIdentifer` array and an `Operation` property with an `Deidentify` action. The `DataIdentifer` array must exactly match the `DataIdentifer` array in the first block of the policy.

  The `Operation` property with the `Deidentify` action is what actually masks the data, and it must contain the `"MaskConfig": {}` object. The `"MaskConfig": {}` object must be empty.

For an example data protection policy, see the **Examples** section on this page.

> **Important**
>
> The contents of the two `DataIdentifer` arrays must match exactly.

In addition to the two JSON blocks, the `policyDocument` can also include `Name`, `Description`, and `Version` fields. The `Name` is used as a dimension when CloudWatch Logs reports audit findings metrics to CloudWatch.

The JSON specified in `policyDocument` can be up to 30,720 characters.

Type: String

Required: Yes

## Response Syntax

```
{
   "lastUpdatedTime": number,
   "logGroupIdentifier": "string",
   "policyDocument": "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.

### lastUpdatedTime

The date and time that this policy was most recently updated.

Type: Long

Valid Range: Minimum value of 0.

### logGroupIdentifier

The log group name or ARN that you specified in your request.

Type: String

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

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

**policyDocument**

The data protection policy used for this log group.

Type: String

## Errors

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

**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 concurrent 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

## Examples

### To create a data protection policy

The following example creates a data protection policy in the 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.PutDataProtectionPolicy
{
    "logGroupIdentifier": "my-log-group",
    "policyDocument": {
        "Name": "data-protection-policy",
        "Description": "test description",
        "Version": "2021-06-01",
        "Statement": [
            {
                "Sid": "audit-policy test",
                "DataIdentifier": [
                    "arn:aws:dataprotection::aws:data-identifier/EmailAddress",
                    "arn:aws:dataprotection::aws:data-identifier/DriversLicense-US"
                ],
                "Operation": {
                    "Audit": {
                        "FindingsDestination": {
                            "CloudWatchLogs": {
                                "LogGroup": "EXISTING_LOG_GROUP_IN_YOUR_ACCOUNT"
                            },
                            "Firehose": {
                                "DeliveryStream": "EXISTING_STREAM_IN_YOUR_ACCOUNT"
                            },
                            "S3": {
                                "Bucket": "EXISTING_BUCKET"
                            }
                        }
                    }
                }
            },
            {
```

```
                "Sid": "redact-policy",
                "DataIdentifier": [
                    "arn:aws:dataprotection::aws:data-identifier/EmailAddress",
                    "arn:aws:dataprotection::aws:data-identifier/DriversLicense-US"
                ],
                "Operation": {
                    "Deidentify": {
                        "MaskConfig": {}
                    }
                }
            }
        ]
    }
}
```

### Sample Response

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

## To create a log transformer policy

The following example creates a log transformer policy in the account that applies to all log groups with names that start with `test-`.

### 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.PutDataProtectionPolicy
```

```
{
    "policyName": "ExampleTransformerPolicy",
    "policyType": "TRANSFORMER_POLICY",
    "selectionCriteria": 'LogGroupNamePrefix = "test-"'
    "policyDocument": [
        {
            "parseJSON": {}
        },
        {
            "addKeys": {
                "entries": [
                    {
                        "key": "metadata.transformed_in",
                        "value": "CloudWatchLogs"
                    }
                ]
            }
        },
        {
            "trimString": {
                "withKeys": [
                    "status"
                ]
            }
        },
        {
            "lowerCaseString": {
                "withKeys": [
                    "status"
                ]
            }
        }
    ]
        ]
    }
```

## Sample Response

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

### To create a field index policy

The following example creates an account-level field index policy that is scoped to log groups that have names that begin with `test`. The policy indexed two fields in these log groups, `RequestId` and `TransactionId`

#### Sample Request

```
{
    "policyName": "my_indexing_account_policy",
    "policyType": "FIELD_INDEX_POLICY",
    "policyDocument": {
        "Fields": ["RequestId", "TransactionId"]
    },
    "selectionCriteria": 'LogGroupNamePrefix = "test"'
}
```

## See Also

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

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

# PutDeliveryDestination

Creates or updates a logical *delivery destination*. A delivery destination is an AWS resource that represents an AWS service that logs can be sent to. CloudWatch Logs, Amazon S3, and Firehose are supported as logs delivery destinations and X-Ray as the trace delivery destination.

To configure logs delivery between a supported AWS service and a destination, you must do the following:

- Create a delivery source, which is a logical object that represents the resource that is actually sending the logs. For more information, see PutDeliverySource.
- Use `PutDeliveryDestination` to create a *delivery destination* in the same account of the actual delivery destination. The delivery destination that you create is a logical object that represents the actual delivery destination.
- If you are delivering logs cross-account, you must use PutDeliveryDestinationPolicy in the destination account to assign an IAM policy to the destination. This policy allows delivery to that destination.
- Use `CreateDelivery` to create a *delivery* by pairing exactly one delivery source and one delivery destination. For more information, see CreateDelivery.

You can configure a single delivery source to send logs to multiple destinations by creating multiple deliveries. You can also create multiple deliveries to configure multiple delivery sources to send logs to the same delivery destination.

Only some AWS services support being configured as a delivery source. These services are listed as **Supported [V2 Permissions]** in the table at Enabling logging from AWS services.

If you use this operation to update an existing delivery destination, all the current delivery destination parameters are overwritten with the new parameter values that you specify.

## Request Syntax

```
{
   "deliveryDestinationConfiguration": {
      "destinationResourceArn": "string"
   },
   "deliveryDestinationType": "string",
   "name": "string",
```

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

## Request Parameters

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

The request accepts the following data in JSON format.

**deliveryDestinationConfiguration**

A structure that contains the ARN of the AWS resource that will receive the logs.

> **Note**
>
> `deliveryDestinationConfiguration` is required for CloudWatch Logs, Amazon S3, Firehose log delivery destinations and not required for X-Ray trace delivery destinations. `deliveryDestinationType` is needed for X-Ray trace delivery destinations but not required for other logs delivery destinations.

Type: DeliveryDestinationConfiguration object

Required: No

**deliveryDestinationType**

The type of delivery destination. This parameter specifies the target service where log data will be delivered. Valid values include:

- `S3` - Amazon S3 for long-term storage and analytics
- `CWL` - CloudWatch Logs for centralized log management
- `FH` - Amazon Kinesis Data Firehose for real-time data streaming
- `XRAY` - AWS X-Ray for distributed tracing and application monitoring

The delivery destination type determines the format and configuration options available for log delivery.

Type: String

Valid Values: `S3 | CWL | FH | XRAY`

Required: No

**name**

A name for this delivery destination. This name must be unique for all delivery destinations in your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: Yes

**outputFormat**

The format for the logs that this delivery destination will receive.

Type: String

Valid Values: `json | plain | w3c | raw | parquet`

Required: No

**tags**

An optional list of key-value pairs to associate with the resource.

For more information about tagging, see Tagging AWS resources

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## Response Syntax

```
{
   "deliveryDestination": {
      "arn": "string",
      "deliveryDestinationConfiguration": {
         "destinationResourceArn": "string"
      },
      "deliveryDestinationType": "string",
      "name": "string",
      "outputFormat": "string",
      "tags": {
         "string" : "string"
      }
   }
}
```

## Response Elements

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

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

**deliveryDestination**

A structure containing information about the delivery destination that you just created or updated.

Type: DeliveryDestination object

## Errors

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

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# PutDeliveryDestinationPolicy

Creates and assigns an IAM policy that grants permissions to CloudWatch Logs to deliver logs cross-account to a specified destination in this account. To configure the delivery of logs from an AWS service in another account to a logs delivery destination in the current account, you must do the following:

- Create a delivery source, which is a logical object that represents the resource that is actually sending the logs. For more information, see PutDeliverySource.
- Create a *delivery destination*, which is a logical object that represents the actual delivery destination. For more information, see PutDeliveryDestination.
- Use this operation in the destination account to assign an IAM policy to the destination. This policy allows delivery to that destination.
- Create a *delivery* by pairing exactly one delivery source and one delivery destination. For more information, see CreateDelivery.

Only some AWS services support being configured as a delivery source. These services are listed as **Supported [V2 Permissions]** in the table at Enabling logging from AWS services.

The contents of the policy must include two statements. One statement enables general logs delivery, and the other allows delivery to the chosen destination. See the examples for the needed policies.

## Request Syntax

```
{
   "deliveryDestinationName": "string",
   "deliveryDestinationPolicy": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**deliveryDestinationName**

The name of the delivery destination to assign this policy to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: Yes

**deliveryDestinationPolicy**

The contents of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 51200.

Required: Yes

## Response Syntax

```
{
   "policy": {
      "deliveryDestinationPolicy": "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.

**policy**

The contents of the policy that you just created.

Type: Policy object

## Errors

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

**ConflictException**

This operation attempted to create a resource that 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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

# Examples

## Policy to use with PutDeliveryDestination

The following example creates a policy that grants permission to CloudWatch Logs to deliver logs cross-account to a destination in the current 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.PutDeliveryDestinationPolicy
{
   "deliveryDestinationName": "DeliveryDestinationName",
   "deliveryDestinationPolicy": "{
      "Version": "2012-10-17",
      "Statement": [
        {
          "Sid": "AllowLogDeliveryActions",
          "Effect": "Allow",
          "Principal": {
            "AWS": "arn:aws:iam::AccountID:root"
          },
          "Action": "logs:CreateDelivery",
          "Resource": [
            "arn:aws:logs:us-east-1:AccountID:delivery-source:*",
            "arn:aws:logs:us-east-1:AccountID:delivery:*",
            "arn:aws:logs:us-east-1:AccountID:delivery-destination:*"
          ]
        }
      ]
    }"
}
```

## See Also

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

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

# PutDeliverySource

Creates or updates a logical *delivery source*. A delivery source represents an AWS resource that sends logs to an logs delivery destination. The destination can be CloudWatch Logs, Amazon S3, Firehose or X-Ray for sending traces.

To configure logs delivery between a delivery destination and an AWS service that is supported as a delivery source, you must do the following:

- Use `PutDeliverySource` to create a delivery source, which is a logical object that represents the resource that is actually sending the logs.
- Use `PutDeliveryDestination` to create a *delivery destination*, which is a logical object that represents the actual delivery destination. For more information, see PutDeliveryDestination.
- If you are delivering logs cross-account, you must use PutDeliveryDestinationPolicy in the destination account to assign an IAM policy to the destination. This policy allows delivery to that destination.
- Use `CreateDelivery` to create a *delivery* by pairing exactly one delivery source and one delivery destination. For more information, see CreateDelivery.

You can configure a single delivery source to send logs to multiple destinations by creating multiple deliveries. You can also create multiple deliveries to configure multiple delivery sources to send logs to the same delivery destination.

Only some AWS services support being configured as a delivery source. These services are listed as **Supported [V2 Permissions]** in the table at Enabling logging from AWS services.

If you use this operation to update an existing delivery source, all the current delivery source parameters are overwritten with the new parameter values that you specify.

## Request Syntax

```
{
   "deliverySourceConfiguration": {
      "string" : "string"
   },
   "logType": "string",
   "name": "string",
   "resourceArn": "string",
```

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

## Request Parameters

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

The request accepts the following data in JSON format.

**deliverySourceConfiguration**

A map of key-value pairs to configure the delivery source. Both keys and values must be between 1 and 255 characters in length. For example, `{"samplingRate": "50"}`.

Type: String to string map

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

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

Required: No

**logType**

Defines the type of log that the source is sending.

- For AWS Amplify, the valid values are `ACCESS_LOGS` and `WAF_LOGS`.
- For Application Load Balancer, the valid values are `ALB_ACCESS_LOGS`, `ALB_CONNECTION_LOGS`, and `ALB_HEALTH_CHECK_LOGS`.
- For Amazon Bedrock AgentCore Gateway, the valid values are `APPLICATION_LOGS` and `TRACES`.
- For Amazon Bedrock AgentCore Identity, the valid values are `APPLICATION_LOGS` and `TRACES`.
- For Amazon Bedrock AgentCore Memory, the valid values are `APPLICATION_LOGS` and `TRACES`.
- For Amazon Bedrock AgentCore Payments, the valid values are `APPLICATION_LOGS` and `TRACES`.
- For Amazon Bedrock AgentCore Runtime, the valid values are `APPLICATION_LOGS`, `USAGE_LOGS`, and `TRACES`.

- For Amazon Bedrock AgentCore Tools, the valid values are APPLICATION_LOGS, USAGE_LOGS, and TRACES.
- For Amazon Bedrock Agents, the valid values are APPLICATION_LOGS and EVENT_LOGS.
- For Amazon Bedrock Knowledge Bases, the valid values are APPLICATION_LOGS and TRACES.
- For CloudFront, the valid value is ACCESS_LOGS.
- For query execution logs from CloudWatch Logs Insights, the valid value is INSIGHTS_QUERY_LOGS.
- For Amazon CodeWhisperer, the valid value is EVENT_LOGS.
- For DevOps Agent, the valid value is APPLICATION_LOGS.
- For Amazon EKS Auto Mode, the valid values are AUTO_MODE_BLOCK_STORAGE_LOGS, AUTO_MODE_COMPUTE_LOGS, AUTO_MODE_IPAM_LOGS, and AUTO_MODE_LOAD_BALANCING_LOGS.
- For Amazon EKS Capability Logs, the valid values are EKS_CAPABILITY_ACK_LOGS, EKS_CAPABILITY_ARGOCD_APPLICATION_LOGS, EKS_CAPABILITY_ARGOCD_APPLICATIONSET_LOGS, EKS_CAPABILITY_ARGOCD_COMMITSERVER_LOGS, EKS_CAPABILITY_ARGOCD_REPOSERVER_LOGS, EKS_CAPABILITY_ARGOCD_SERVER_LOGS, and EKS_CAPABILITY_KRO_LOGS.
- For AWS Elemental Inference, the valid value is APPLICATION_LOGS.
- For Elemental MediaPackage, the valid values are EGRESS_ACCESS_LOGS and INGRESS_ACCESS_LOGS.
- For Elemental MediaTailor, the valid values are AD_DECISION_SERVER_LOGS, MANIFEST_SERVICE_LOGS, and TRANSCODE_LOGS.
- For AWS Entity Resolution, the valid value is WORKFLOW_LOGS.
- For Amazon EventBridge Event Bus (Custom), the valid values are INFO_LOGS and ERROR_LOGS.
- For IAM Identity Center, the valid value is ERROR_LOGS.
- For Network Firewall Proxy, the valid values are ALERT_LOGS, ALLOW_LOGS, and DENY_LOGS.
- For Network Load Balancer, the valid value is NLB_ACCESS_LOGS.
- For AWS PCS, the valid values are PCS_SCHEDULER_LOGS, PCS_JOBCOMP_LOGS, PCS_SCHEDULER_AUDIT_LOGS, and PCS_SCALING_LOGS.

- For Amazon Q, the valid values are EVENT_LOGS and SYNC_JOB_LOGS.
- For Amazon Q in Connect AI agents, the valid value is EVENT_LOGS.
- For Quick, the valid values are AGENT_HOURS_LOGS, AGENT_METADATA_LOGS, CHAT_LOGS, DLP_LOGS, FEEDBACK_LOGS, INDEX_USAGE_LOGS, and KB_FILE_SYNC_LOGS.
- For Route 53 Global Resolver, the valid value is GLOBAL_RESOLVER_LOGS.
- For AWS RTB Fabric, the valid value is APPLICATION_LOGS.
- For Amazon S3, the valid value is S3_SERVER_ACCESS_LOGS.
- For AWS Security Hub, the valid value is SECURITY_FINDING_LOGS.
- For AWS Security Hub CSPM, the valid value is SECURITY_FINDING_LOGS.
- For Amazon SES mail manager, the valid values are APPLICATION_LOGS and TRAFFIC_POLICY_DEBUG_LOGS.
- For AWS Shield Advanced, the valid value is FLOW_LOGS.
- For Amazon VPC Route Server, the valid value is EVENT_LOGS.
- For Amazon WorkMail, the valid values are ACCESS_CONTROL_LOGS, AUTHENTICATION_LOGS, WORKMAIL_AVAILABILITY_PROVIDER_LOGS, WORKMAIL_MAILBOX_ACCESS_LOGS, and WORKMAIL_PERSONAL_ACCESS_TOKEN_LOGS.

Type: String

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

Pattern: [\w]*

Required: Yes

**name**

A name for this delivery source. This name must be unique for all delivery sources in your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: [\w-]*

Required: Yes

**resourceArn**

The ARN of the AWS resource that is generating and sending logs. For example, `arn:aws:workmail:us-east-1:123456789012:organization/m-1234EXAMPLEabcd1234abcd1234abcd1234`

For the `SECURITY_FINDING_LOGS` logType, use a wildcard ARN for the hub resource. For AWS Security Hub CSPM, use `arn:aws:securityhub:us-east-1:111122223333:hub/*` and for AWS Security Hub, use `arn:aws:securityhub:us-east-1:111122223333:hubv2/*`

For the `INSIGHTS_QUERY_LOGS` log type, use a wildcard log group ARN, such as `arn:aws:logs:us-east-1:111122223333:log-group:*`. AWS does not support a specific log group ARN for this log type.

Type: String

Required: Yes

**tags**

An optional list of key-value pairs to associate with the resource.

For more information about tagging, see Tagging AWS resources

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## Response Syntax

```
{
   "deliverySource": {
```

```
      "arn": "string",
      "deliverySourceConfiguration": {
         "string" : "string"
      },
      "logType": "string",
      "name": "string",
      "resourceArns": [ "string" ],
      "service": "string",
      "status": "string",
      "statusReason": "string",
      "tags": {
         "string" : "string"
      }
   }
}
```

## Response Elements

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

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

**deliverySource**

A structure containing information about the delivery source that was just created or updated.

Type: DeliverySource object

## Errors

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

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceQuotaExceededException**

This request exceeds a service quota.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# PutDestination

Creates or updates a destination. This operation is used only to create destinations for cross-account subscriptions.

A destination encapsulates a physical resource (such as an Amazon Kinesis stream). With a destination, you can subscribe to a real-time stream of log events for a different account, ingested using PutLogEvents.

Through an access policy, a destination controls what is written to it. By default, `PutDestination` does not set any access policy with the destination, which means a cross-account user cannot call PutSubscriptionFilter against this destination. To enable this, the destination owner must call PutDestinationPolicy after `PutDestination`.

To perform a `PutDestination` operation, you must also have the `iam:PassRole` permission.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**destinationName**

A name for the destination.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**roleArn**

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

**tags**

An optional list of key-value pairs to associate with the resource.

For more information about tagging, see Tagging AWS resources

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

**targetArn**

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**

The destination.

Type: Destination object

## Errors

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

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent requests to update the same resource were in conflict.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

# Examples

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

# 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",
   "forceUpdate": boolean
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**accessPolicy**

An IAM policy document that authorizes cross-account users to deliver their log events to the associated destination. This can be up to 5120 bytes.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**destinationName**

A name for an existing destination.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**forceUpdate**

Specify true if you are updating an existing destination policy to grant permission to an organization ID instead of granting permission to individual AWS accounts. Before you update a destination policy this way, you must first update the subscription filters in the accounts that send logs to this destination. If you do not, the subscription filters might stop working. By specifying `true` for `forceUpdate`, you are affirming that you have already updated the subscription filters. For more information, see Updating an existing cross-account subscription

If you omit this parameter, the default of `false` is used.

Type: Boolean

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent requests to update the same resource were in conflict.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

# Examples

## 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\": \"111111111111\"}, \"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 V2

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

# PutIndexPolicy

Creates or updates a *field index policy* for the specified log group. Only log groups in the Standard log class support field index policies. For more information about log classes, see Log classes.

You can use field index policies to create *field indexes* on fields found in log events in the log group. Creating field indexes speeds up and lowers the costs for CloudWatch Logs Insights queries that reference those field indexes, because these queries attempt to skip the processing of log events that are known to not match the indexed field. Good fields to index are fields that you often need to query for and fields or values that match only a small fraction of the total log events. Common examples of indexes include request ID, session ID, userID, and instance IDs. For more information, see Create field indexes to improve query performance and reduce costs.

You can configure indexed fields as *facets* to enable interactive exploration and filtering of your logs in the CloudWatch Logs Insights console. Facets allow you to view value distributions and counts for indexed fields without running queries. When you create a field index, you can optionally set it as a facet to enable this interactive analysis capability. For more information, see Use facets to group and explore logs.

To find the fields that are in your log group events, use the GetLogGroupFields operation.

For example, suppose you have created a field index for `requestId`. Then, any CloudWatch Logs Insights query on that log group that includes `requestId = value` or `requestId IN [value, value, ...]` will process fewer log events to reduce costs, and have improved performance.

CloudWatch Logs provides default field indexes for all log groups in the Standard log class. Default field indexes are automatically available for the following fields:

- `@logStream`
- `@aws.region`
- `@aws.account`
- `@source.log`
- `traceId`

Default field indexes are in addition to any custom field indexes you define within your policy. Default field indexes are not counted towards your field index quota.

Each index policy has the following quotas and restrictions:

- As many as 20 fields can be included in the policy.
- Each field name can include as many as 100 characters.

Matches of log events to the names of indexed fields are case-sensitive. For example, a field index of `RequestId` won't match a log event containing `requestId`.

Log group-level field index policies created with `PutIndexPolicy` override account-level field index policies created with PutAccountPolicy that apply to log groups. If you use `PutIndexPolicy` to create a field index policy for a log group, that log group uses only that policy for log group-level indexing, including any facet configurations. The log group ignores any account-wide field index policy that applies to log groups, but data source-based account policies may still apply.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

Specify either the log group name or log group ARN to apply this field index policy to. If you specify an ARN, use the format arn:aws:logs:*region*:*account-id*:log-group:*log_group_name* Don't include an * at the end.

Type: String

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

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

Required: Yes

**policyDocument**

The index policy document, in JSON format. The following is an example of an index policy document that creates indexes with different types.

`"policyDocument": "{"Fields": [ "TransactionId" ], "FieldsV2": {"RequestId": {"type": "FIELD_INDEX"}, "APIName": {"type": "FACET"}, "StatusCode": {"type": "FACET"}}}"`

You can use `FieldsV2` to specify the type for each field. Supported types are `FIELD_INDEX` and `FACET`. Field names within `Fields` and `FieldsV2` must be mutually exclusive.

The policy document must include at least one field index. For more information about the fields that can be included and other restrictions, see Field index syntax and quotas.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 51200.

Required: Yes

## Response Syntax

```
{
   "indexPolicy": {
      "lastUpdateTime": number,
      "logGroupIdentifier": "string",
      "policyDocument": "string",
      "policyName": "string",
      "source": "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.

**indexPolicy**

The index policy that you just created or updated.

Type: IndexPolicy object

## Errors

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

**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 concurrent 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

## Examples

### Create index policy for a log group

The following example creates an index policy that indexes two fields, `RequestId` and `TransactionId`.

### Sample Request

```
{
    "logGroupIdentifier": "service-logs",
    "policyDocument": {
        "Fields": ["RequestId", "TransactionId"]
    }
}
```

## See Also

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

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

# PutIntegration

Creates an integration between CloudWatch Logs and another service in this account. Currently, only integrations with OpenSearch Service are supported, and currently you can have only one integration in your account.

Integrating with OpenSearch Service makes it possible for you to create curated vended logs dashboards, powered by OpenSearch Service analytics. For more information, see Vended log dashboards powered by Amazon OpenSearch Service.

You can use this operation only to create a new integration. You can't modify an existing integration.

## Request Syntax

```
{
   "integrationName": "string",
   "integrationType": "string",
   "resourceConfig": { ... }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**integrationName**

A name for the integration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

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

Required: Yes

**integrationType**

The type of integration. Currently, the only supported type is `OPENSEARCH`.

Type: String

Valid Values: OPENSEARCH

Required: Yes

**resourceConfig**

A structure that contains configuration information for the integration that you are creating.

Type: ResourceConfig object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

## Response Syntax

```
{
   "integrationName": "string",
   "integrationStatus": "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.

**integrationName**

The name of the integration that you just created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

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

**integrationStatus**

The status of the integration that you just created.

After you create an integration, it takes a few minutes to complete. During this time, you'll see the status as `PROVISIONING`.

Type: String

Valid Values: `PROVISIONING | ACTIVE | FAILED`

## Errors

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

**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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

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

# PutLogEvents

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

> **Important**
>
> The sequence token is now ignored in `PutLogEvents` actions. `PutLogEvents` actions are always accepted and never return `InvalidSequenceTokenException` or `DataAlreadyAcceptedException` even if the sequence token is not valid. You can use parallel `PutLogEvents` actions on the same log stream.

The batch of events must satisfy the following constraints:

- The maximum batch size is 1,048,576 bytes. This size is calculated as the sum of all event messages in UTF-8, plus 26 bytes for each log event.
- Events more than 2 hours in the future are rejected while processing remaining valid events.
- Events older than 14 days or preceding the log group's retention period are rejected while processing remaining valid events.
- The log events in the batch must be in chronological order by their timestamp. The timestamp is the time that 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`.)
- A batch of log events in a single request must be in a chronological order. Otherwise, the operation fails.
- Each log event can be no larger than 1 MB.
- The maximum number of log events in a batch is 10,000.
- For valid events (within 14 days in the past to 2 hours in future), the time span in a single batch cannot exceed 24 hours. Otherwise, the operation fails.

> **Important**
>
> The quota of five requests per second per log stream has been removed. Instead, `PutLogEvents` actions are throttled based on a per-second per-account quota. You can request an increase to the per-second throttling quota by using the Service Quotas service.

If a call to PutLogEvents returns "UnrecognizedClientException" the most likely cause is a non-valid AWS access key ID or secret key.

## Request Syntax

```
{
   "entity": {
      "attributes": {
         "string" : "string"
      },
      "keyAttributes": {
         "string" : "string"
      }
   },
   "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.

The request accepts the following data in JSON format.

**entity**

The entity associated with the log events.

Type: Entity object

Required: No

**logEvents**

The log events.

Type: Array of InputLogEvent objects

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

Required: Yes

**logGroupName**

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

**logStreamName**

The name of the log stream.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**sequenceToken**

The sequence token obtained from the response of the previous `PutLogEvents` call.

> **Important**
>
> The `sequenceToken` parameter is now ignored in `PutLogEvents` actions. `PutLogEvents` actions are now accepted and never return `InvalidSequenceTokenException` or `DataAlreadyAcceptedException` even if the sequence token is not valid.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## Response Syntax

```
{
   "nextSequenceToken": "string",
   "rejectedEntityInfo": {
      "errorType": "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**

The next sequence token.

> **Important**
>
> This field has been deprecated.
> The sequence token is now ignored in `PutLogEvents` actions. `PutLogEvents` actions are always accepted even if the sequence token is not valid. You can use parallel `PutLogEvents` actions on the same log stream and you do not need to wait for the response of a previous `PutLogEvents` action to obtain the `nextSequenceToken` value.

Type: String

Length Constraints: Minimum length of 1.

**rejectedEntityInfo**

Information about why the entity is rejected when calling `PutLogEvents`. Only returned when the entity is rejected.

> **Note**
>
> When the entity is rejected, the events may still be accepted.

Type: RejectedEntityInfo object

**rejectedLogEventsInfo**

The rejected events.

Type: RejectedLogEventsInfo object

## Errors

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

**DataAlreadyAcceptedException**

The event was already logged.

> **Important**
>
> `PutLogEvents` actions are now always accepted and never return `DataAlreadyAcceptedException` regardless of whether a given batch of log events has already been accepted.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**InvalidSequenceTokenException**

The sequence token is not valid. You can get the correct sequence token in the `expectedSequenceToken` field in the `InvalidSequenceTokenException` message.

> **Important**
>
> `PutLogEvents` actions are now always accepted and never return `InvalidSequenceTokenException` regardless of receiving an invalid sequence token.

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 AWS access key ID or secret key that's not valid.

HTTP Status Code: 400

# Examples

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

# PutLogGroupDeletionProtection

Enables or disables deletion protection for the specified log group. When enabled on a log group, deletion protection blocks all deletion operations until it is explicitly disabled.

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

## Request Syntax

```
{
   "deletionProtectionEnabled": boolean,
   "logGroupIdentifier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**deletionProtectionEnabled**

Whether to enable deletion protection.

Type: Boolean

Required: Yes

Type: Boolean

Required: Yes

**logGroupIdentifier**

The name or ARN of the log group.

Type: String

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

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

Required: Yes

Type: String

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

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

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

# Examples

## Sample Request

This example illustrates one usage of PutLogGroupDeletionProtection.

### 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.PutLogGroupDeletionProtection
{
  "logGroupIdentifier": "my-log-group",
  "deletionProtectionEnabled": true
}
```

### Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: 0
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 V2

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

# PutMetricFilter

Creates or updates a metric filter and associates it with the specified log group. With metric filters, you can configure rules to extract metric data from log events ingested through PutLogEvents.

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

Using regular expressions in filter patterns is supported. For these filters, there is a quota of two regular expression patterns within a single filter pattern. There is also a quota of five regular expression patterns per log group. For more information about using regular expressions in filter patterns, see Filter pattern syntax for metric filters, subscription filters, filter log events, and Live Tail.

When you create a metric filter, you can also optionally assign a unit and dimensions to the metric that is created.

**Important**

Metrics extracted from log events are charged as custom metrics. To prevent unexpected high charges, do not specify high-cardinality fields such as `IPAddress` or `requestID` as dimensions. Each different value found for a dimension is treated as a separate metric and accrues charges as a separate custom metric.
CloudWatch Logs might disable a metric filter if it generates 1,000 different name/value pairs for your specified dimensions within one hour.
You can also set up a billing alarm to alert you if your charges are higher than expected. For more information, see Creating a Billing Alarm to Monitor Your Estimated AWS Charges.

## Request Syntax

```
{
   "applyOnTransformedLogs": boolean,
   "emitSystemFieldDimensions": [ "string" ],
   "fieldSelectionCriteria": "string",
   "filterName": "string",
   "filterPattern": "string",
   "logGroupName": "string",
   "metricTransformations": [
      {
         "defaultValue": number,
```

```
         "dimensions": {
            "string" : "string"
         },
         "metricName": "string",
         "metricNamespace": "string",
         "metricValue": "string",
         "unit": "string"
      }
   ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**applyOnTransformedLogs**

This parameter is valid only for log groups that have an active log transformer. For more information about log transformers, see PutTransformer.

If the log group uses either a log-group level or account-level transformer, and you specify `true`, the metric filter will be applied on the transformed version of the log events instead of the original ingested log events.

Type: Boolean

Required: No

**emitSystemFieldDimensions**

A list of system fields to emit as additional dimensions in the generated metrics. Valid values are `@aws.account` and `@aws.region`. These dimensions help identify the source of centralized log data and count toward the total dimension limit for metric filters.

Type: Array of strings

Required: No

**fieldSelectionCriteria**

A filter expression that specifies which log events should be processed by this metric filter based on system fields such as source account and source region. Uses selection criteria syntax

with operators like =, !=, AND, OR, IN, NOT IN. Example: `@aws.region = "us-east-1"` or `@aws.account IN ["123456789012", "987654321098"]`. Maximum length: 2000 characters.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2000.

Required: No

**filterName**

A name for the metric filter.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**filterPattern**

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**

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

**metricTransformations**

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

Type: Array of MetricTransformation 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 Error Types.

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**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 concurrent 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

# Examples

## 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": "$size",
      "metricNamespace": "MyApp",
      "metricName": "Volume",
      "dimensions": {"Request": "$request","UserId": "$user_id"},
      "unit": "Count"
    }
  ]
}
```

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

# PutQueryDefinition

Creates or updates a query definition for CloudWatch Logs Insights. For more information, see Analyzing Log Data with CloudWatch Logs Insights.

To update a query definition, specify its `queryDefinitionId` in your request. The values of `name`, `queryString`, and `logGroupNames` are changed to the values that you specify in your update operation. No current values are retained from the current query definition. For example, imagine updating a current query definition that includes log groups. If you don't specify the `logGroupNames` parameter in your update operation, the query definition changes to contain no log groups.

You must have the `logs:PutQueryDefinition` permission to be able to perform this operation.

## Request Syntax

```
{
   "clientToken": "string",
   "logGroupNames": [ "string" ],
   "name": "string",
   "parameters": [
      {
         "defaultValue": "string",
         "description": "string",
         "name": "string"
      }
   ],
   "queryDefinitionId": "string",
   "queryLanguage": "string",
   "queryString": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**clientToken**

Used as an idempotency token, to avoid returning an exception if the service receives the same request twice because of a network error.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 128.

Pattern: `\S{36,128}`

Required: No

**logGroupNames**

Use this parameter to include specific log groups as part of your query definition. If your query uses the OpenSearch Service query language, you specify the log group names inside the `querystring` instead of here.

If you are updating an existing query definition for the Logs Insights QL or OpenSearch Service PPL and you omit this parameter, then the updated definition will contain no log groups.

Type: Array of strings

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

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

Required: No

**name**

A name for the query definition. If you are saving numerous query definitions, we recommend that you name them. This way, you can find the ones you want by using the first part of the name as a filter in the `queryDefinitionNamePrefix` parameter of DescribeQueryDefinitions.

Type: String

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

Required: Yes

**parameters**

Use this parameter to include specific query parameters as part of your query definition. Query parameters are supported only for Logs Insights QL queries. Query parameters allow you to use

placeholder variables in your query string that are substituted with values at execution time. Use the `{{parameterName}}` syntax in your query string to reference a parameter.

Type: Array of QueryParameter objects

Array Members: Maximum number of 20 items.

Required: No

**queryDefinitionId**

If you are updating a query definition, use this parameter to specify the ID of the query definition that you want to update. You can use DescribeQueryDefinitions to retrieve the IDs of your saved query definitions.

If you are creating a query definition, do not specify this parameter. CloudWatch generates a unique ID for the new query definition and include it in the response to this operation.

Type: String

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

Required: No

**queryLanguage**

Specify the query language to use for this query. The options are Logs Insights QL, OpenSearch PPL, and OpenSearch SQL. For more information about the query languages that CloudWatch Logs supports, see Supported query languages.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: No

**queryString**

The query string to use for this definition. For more information, see CloudWatch Logs Insights Query Syntax.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: Yes

## Response Syntax

```
{
   "queryDefinitionId": "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.

**queryDefinitionId**

The ID of the query definition.

Type: String

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

## Errors

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

**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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ServiceUnavailableException**

The service cannot complete the request.

HTTP Status Code: 500

# Examples

## Create a new query definition

This example creates a query definition.

### 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.PutQueryDefinition
{
   "querystring": "stats sum(packets) as packetsTransferred by srcAddr, dstAddr | sort
 packetsTransferred  desc | limit 15",
   "name": "VPC-top15-packet-transfers",
   "logGroupNames": [ "VPC_Flow_Log1", "VPC_Flow_Log2" ],
}
```

### Sample Response

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

```
{
   "queryDefinitionId": "123456ab-12ab-123a-789e-1234567890ab"
}
```

## Update a query definition

This example updates the query definition that was created in the previous example. The query is changed to show the top 25 responses instead of the top 15, and the name of the query is changed to reflect this.

### 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.PutQueryDefinition
{
   "queryDefinitionId": "123456ab-12ab-123a-789e-1234567890ab",
   "querystring": "stats sum(packets) as packetsTransferred by srcAddr, dstAddr | sort
 packetsTransferred  desc | limit 25",
   "name": "VPC-top25-packet-transfers",
}
```

### Sample Response

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

## Create a query definition with parameters

This example creates a parameterized query definition. The query string includes parameter placeholders that are substituted at execution time.

### 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.PutQueryDefinition
{
   "name": "ErrorsByLevel",
   "queryString": "fields @timestamp, @message | filter level = {{logLevel}}",
   "logGroupNames": [ "/aws/lambda/my-function" ],
   "parameters": [
      {
         "name": "logLevel",
         "defaultValue": "ERROR",
         "description": "Log level to filter (ERROR, WARN, INFO, DEBUG)"
      }
   ]
}
```

### Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
   "queryDefinitionId": "12345678-1234-1234-1234-123456789012"
}
```

## See Also

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

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

# PutResourcePolicy

Creates or updates a resource policy allowing other AWS services to put log events to this account, such as Amazon Route 53. This API has the following restrictions:

- **Supported actions** - Policy only supports `logs:PutLogEvents` and `logs:CreateLogStream` actions
- **Supported principals** - Policy only applies when operations are invoked by AWS service principals (not IAM users, roles, or cross-account principals
- **Policy limits** - An account can have a maximum of 10 policies without resourceARN and one per LogGroup resourceARN

> **Important**
>
> Resource policies with actions invoked by non-AWS service principals (such as IAM users, roles, or other AWS accounts) will not be enforced. For access control involving these principals, use the IAM policies.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**expectedRevisionId**

The expected revision ID of the resource policy. Required when `resourceArn` is provided to prevent concurrent modifications. Use `null` when creating a resource policy for the first time.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**policyDocument**

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. This parameter is required.

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.

CloudWatch Logs also supports aws:SourceArn and aws:SourceAccount condition context keys.

In the example resource policy, you would replace the value of `SourceArn` with the resource making the call from Route 53 to CloudWatch Logs. You would also replace the value of `SourceAccount` with the AWS account ID making that call.

```
{ "Version": "2012-10-17", "Statement": [ { "Sid":
"Route53LogsToCloudWatchLogs", "Effect": "Allow", "Principal":
{ "Service": [ "route53.amazonaws.com" ] }, "Action":
"logs:PutLogEvents", "Resource": "logArn", "Condition": { "ArnLike":
{ "aws:SourceArn": "myRoute53ResourceArn" }, "StringEquals":
{ "aws:SourceAccount": "myAwsAccountId" } } } ] }
```

Type: String

Length Constraints: Minimum length of 1. Maximum length of 51200.

Required: No

**policyName**

Name of the new policy. This parameter is required.

Type: String

Required: No

**resourceArn**

The ARN of the CloudWatch Logs resource to which the resource policy needs to be added or attached. Currently only supports LogGroup ARN.

Type: String

Required: No

## Response Syntax

```
{
   "resourcePolicy": {
      "lastUpdatedTime": number,
      "policyDocument": "string",
      "policyName": "string",
      "policyScope": "string",
      "resourceArn": "string",
      "revisionId": "string"
   },
   "revisionId": "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**

The new policy.

Type: ResourcePolicy object

**revisionId**

The revision ID of the created or updated resource policy. Only returned for resource-scoped policies.

Type: String

Length Constraints: Minimum length of 1.

## Errors

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

**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 concurrent 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

## See Also

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

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

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

# PutRetentionPolicy

Sets the retention of the specified log group. With a retention policy, you can configure the number of days for which to retain log events in the specified log group.

> **Note**
>
> CloudWatch Logs doesn't immediately delete log events when they reach their retention setting. It typically takes up to 72 hours after that before log events are deleted, but in rare situations might take longer.
>
> To illustrate, imagine that you change a log group to have a longer retention setting when it contains log events that are past the expiration date, but haven't been deleted. Those log events will take up to 72 hours to be deleted after the new retention date is reached. To make sure that log data is deleted permanently, keep a log group at its lower retention setting until 72 hours after the previous retention period ends. Alternatively, wait to change the retention setting until you confirm that the earlier log events are deleted.
>
> When log events reach their retention setting they are marked for deletion. After they are marked for deletion, they do not add to your archival storage costs anymore, even if they are not actually deleted until later. These log events marked for deletion are also not included when you use an API to retrieve the `storedBytes` value to see how many bytes a log group is storing.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### logGroupName

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

**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, 1096, 1827, 2192, 2557, 2922, 3288, and 3653.

To set a log group so that its log events do not expire, use DeleteRetentionPolicy.

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

# Examples

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

# PutStorageTierPolicy

Sets the storage tier policy for the account. When you set the storage tier to `INTELLIGENT_TIERING`, the service automatically moves log data to the most cost-effective storage tier based on access frequency.

## Request Syntax

```
{
   "storageTier": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**storageTier**

The storage tier to set for the account. Use `INTELLIGENT_TIERING` to automatically optimize storage costs by moving log data to the appropriate tier based on access frequency.

Type: String

Valid Values: `STANDARD | INTELLIGENT_TIERING`

Required: Yes

## Response Syntax

```
{
   "lastUpdatedTime": number,
   "storageTier": "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.

**lastUpdatedTime**

The time when the storage tier policy was last updated, expressed as the number of milliseconds after `January 1, 1970 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

**storageTier**

The storage tier for the account.

Type: String

Valid Values: `STANDARD | INTELLIGENT_TIERING`

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# PutSubscriptionFilter

Creates or updates a subscription filter and associates it with the specified log group. With subscription filters, you can subscribe to a real-time stream of log events ingested through PutLogEvents and have them delivered to a specific destination. When log events are sent to the receiving service, they are Base64 encoded and compressed with the GZIP format.

The following destinations are supported for subscription filters:

- An Amazon Kinesis data stream belonging to the same account as the subscription filter, for same-account delivery.
- A logical destination created with PutDestination that belongs to a different account, for cross-account delivery. We currently support Kinesis Data Streams and Firehose as logical destinations.
- An Amazon Kinesis Data 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.

Each log group can have up to two subscription filters associated with it. If you are updating an existing filter, you must specify the correct name in `filterName`.

Using regular expressions in filter patterns is supported. For these filters, there is a quotas of quota of two regular expression patterns within a single filter pattern. There is also a quota of five regular expression patterns per log group. For more information about using regular expressions in filter patterns, see Filter pattern syntax for metric filters, subscription filters, filter log events, and Live Tail.

To perform a `PutSubscriptionFilter` operation for any destination except a Lambda function, you must also have the `iam:PassRole` permission.

## Request Syntax

```
{
   "applyOnTransformedLogs": boolean,
   "destinationArn": "string",
   "distribution": "string",
   "emitSystemFields": [ "string" ],
```

```
    "fieldSelectionCriteria": "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.

The request accepts the following data in JSON format.

**applyOnTransformedLogs**

This parameter is valid only for log groups that have an active log transformer. For more information about log transformers, see PutTransformer.

If the log group uses either a log-group level or account-level transformer, and you specify `true`, the subscription filter will be applied on the transformed version of the log events instead of the original ingested log events.

Type: Boolean

Required: No

**destinationArn**

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.

  If you're setting up a cross-account subscription, the destination must have an IAM policy associated with it. The IAM policy must allow the sender to send logs to the destination. For more information, see PutDestinationPolicy.
- A Kinesis Data Firehose delivery stream belonging to the same account as the subscription filter, for same-account delivery.

- A 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**

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 data stream.

Type: String

Valid Values: `Random | ByLogStream`

Required: No

**emitSystemFields**

A list of system fields to include in the log events sent to the subscription destination. Valid values are `@aws.account`, `@aws.region`, and `@source.log`. These fields provide source information for centralized log data in the forwarded payload.

Type: Array of strings

Required: No

**fieldSelectionCriteria**

A filter expression that specifies which log events should be processed by this subscription filter based on system fields such as source account and source region. Uses selection criteria syntax with operators like `=`, `!=`, `AND`, `OR`, `IN`, `NOT IN`. Example: `@aws.region NOT IN ["cn-north-1"]` or `@aws.account = "123456789012" AND @aws.region = "us-east-1"`. Maximum length: 2000 characters.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2000.

Required: No

**filterName**

A name for the subscription filter. If you are updating an existing filter, you must specify the correct name in `filterName`. To find the name of the filter currently associated with a log group, use DescribeSubscriptionFilters.

Type: String

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

Pattern: `[^:*]*`

Required: Yes

**filterPattern**

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**

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

**roleArn**

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 Error Types.

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**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 concurrent 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

# Examples

## 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",
  "applyOnTransformedLogs" : true
}
```

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

# PutSyslogConfiguration

Creates or updates a syslog configuration for a log group. This enables ingestion of syslog data through the specified VPC endpoint into the log group.

## Request Syntax

```
{
   "logGroupIdentifier": "string",
   "vpcEndpointId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

The name or ARN of the log group to associate with the syslog configuration.

Type: String

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

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

Required: Yes

**vpcEndpointId**

The ID of the VPC endpoint to use for syslog ingestion.

Type: String

Pattern: `^vpce-[0-9a-f]{1,64}$`

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

# Examples

## To create a syslog configuration

The following example creates a syslog configuration that enables syslog ingestion for the specified log group through a VPC endpoint.

### 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.PutSyslogConfiguration
{
  "logGroupIdentifier": "arn:aws:logs:us-east-1:123456789012:log-group:my-syslog-
group",
  "vpcEndpointId": "vpce-0123456789abcdef0"
}
```

### 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 V2

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

# PutTransformer

Creates or updates a *log transformer* for a single log group. You use log transformers to transform log events into a different format, making them easier for you to process and analyze. You can also transform logs from different sources into standardized formats that contains relevant, source-specific information.

After you have created a transformer, CloudWatch Logs performs the transformations at the time of log ingestion. You can then refer to the transformed versions of the logs during operations such as querying with CloudWatch Logs Insights or creating metric filters or subscription filers.

You can also use a transformer to copy metadata from metadata keys into the log events themselves. This metadata can include log group name, log stream name, account ID and Region.

A transformer for a log group is a series of processors, where each processor applies one type of transformation to the log events ingested into this log group. The processors work one after another, in the order that you list them, like a pipeline. For more information about the available processors to use in a transformer, see Processors that you can use.

Having log events in standardized format enables visibility across your applications for your log analysis, reporting, and alarming needs. CloudWatch Logs provides transformation for common log types with out-of-the-box transformation templates for major AWS log sources such as VPC flow logs, Lambda, and Amazon RDS. You can use pre-built transformation templates or create custom transformation policies.

You can create transformers only for the log groups in the Standard log class.

You can also set up a transformer at the account level. For more information, see PutAccountPolicy. If there is both a log-group level transformer created with `PutTransformer` and an account-level transformer that could apply to the same log group, the log group uses only the log-group level transformer. It ignores the account-level transformer.

## Request Syntax

```
{
   "logGroupIdentifier": "string",
   "transformerConfig": [
      {
         "addKeys": {
            "entries": [
               {
```

```
                "key": "string",
                "overwriteIfExists": boolean,
                "value": "string"
             }
          ]
       },
       "copyValue": {
          "entries": [
             {
                "overwriteIfExists": boolean,
                "source": "string",
                "target": "string"
             }
          ]
       },
       "csv": {
          "columns": [ "string" ],
          "delimiter": "string",
          "destination": "string",
          "quoteCharacter": "string",
          "source": "string"
       },
       "dateTimeConverter": {
          "locale": "string",
          "matchPatterns": [ "string" ],
          "source": "string",
          "sourceTimezone": "string",
          "target": "string",
          "targetFormat": "string",
          "targetTimezone": "string"
       },
       "deleteKeys": {
          "withKeys": [ "string" ]
       },
       "grok": {
          "match": "string",
          "source": "string"
       },
       "listToMap": {
          "flatten": boolean,
          "flattenedElement": "string",
          "key": "string",
          "source": "string",
          "target": "string",
```

```
            "valueKey": "string"
         },
         "lowerCaseString": {
            "withKeys": [ "string" ]
         },
         "moveKeys": {
            "entries": [
               {
                  "overwriteIfExists": boolean,
                  "source": "string",
                  "target": "string"
               }
            ]
         },
         "parseCloudfront": {
            "source": "string"
         },
         "parseJSON": {
            "destination": "string",
            "source": "string"
         },
         "parseKeyValue": {
            "destination": "string",
            "fieldDelimiter": "string",
            "keyPrefix": "string",
            "keyValueDelimiter": "string",
            "nonMatchValue": "string",
            "overwriteIfExists": boolean,
            "source": "string"
         },
         "parsePostgres": {
            "source": "string"
         },
         "parseRoute53": {
            "source": "string"
         },
         "parseToOCSF": {
            "eventSource": "string",
            "mappingVersion": "string",
            "ocsfVersion": "string",
            "source": "string"
         },
         "parseVPC": {
            "source": "string"
```

```
      },
      "parseWAF": {
         "source": "string"
      },
      "renameKeys": {
         "entries": [
            {
               "key": "string",
               "overwriteIfExists": boolean,
               "renameTo": "string"
            }
         ]
      },
      "splitString": {
         "entries": [
            {
               "delimiter": "string",
               "source": "string"
            }
         ]
      },
      "substituteString": {
         "entries": [
            {
               "from": "string",
               "source": "string",
               "to": "string"
            }
         ]
      },
      "trimString": {
         "withKeys": [ "string" ]
      },
      "typeConverter": {
         "entries": [
            {
               "key": "string",
               "type": "string"
            }
         ]
      },
      "upperCaseString": {
         "withKeys": [ "string" ]
      }
```

```
        }
    ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupIdentifier**

Specify either the name or ARN of the log group to create the transformer for.

Type: String

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

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

Required: Yes

**transformerConfig**

This structure contains the configuration of this log transformer. A log transformer is an array of processors, where each processor applies one type of transformation to the log events that are ingested.

Type: Array of Processor objects

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

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 Error Types.

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**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 concurrent 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

# Examples

## To create a log transformer

The following example creates a log transformer 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.PutTransformer
{
    "logGroupIdentifier": "my-log-group-name",
    "transformerConfig": [
        {
            "parseJSON": {}
        },
        {
            "addKeys": {
                "entries": [
                    {
                        "key": "metadata.transformed_in",
                        "value": "CloudWatchLogs"
                    }
                ]
            }
        },
        {
            "trimString": {
                "withKeys": [
                    "status"
                ]
            }
        },
        {
            "lowerCaseString": {
                "withKeys": [
                    "status"
                ]
            }
        }
    ]
}
```

## See Also

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

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

# StartLiveTail

Starts a Live Tail streaming session for one or more log groups. A Live Tail session returns a stream of log events that have been recently ingested in the log groups. For more information, see Use Live Tail to view logs in near real time.

The response to this operation is a response stream, over which the server sends live log events and the client receives them.

The following objects are sent over the stream:

- A single LiveTailSessionStart object is sent at the start of the session.
- Every second, a LiveTailSessionUpdate object is sent. Each of these objects contains an array of the actual log events.

  If no new log events were ingested in the past second, the `LiveTailSessionUpdate` object will contain an empty array.

  The array of log events contained in a `LiveTailSessionUpdate` can include as many as 500 log events. If the number of log events matching the request exceeds 500 per second, the log events are sampled down to 500 log events to be included in each `LiveTailSessionUpdate` object.

  If your client consumes the log events slower than the server produces them, CloudWatch Logs buffers up to 10 `LiveTailSessionUpdate` events or 5000 log events, after which it starts dropping the oldest events.
- A SessionStreamingException object is returned if an unknown error occurs on the server side.
- A SessionTimeoutException object is returned when the session times out, after it has been kept open for three hours.

**Note**

The `StartLiveTail` API routes requests using SDK host prefix injection. SDK versions released before April 1, 2026 route to `streaming-logs.`*`Region`*`.amazonaws.com`, which does not support VPC endpoints. SDK versions released on or after April 1, 2026 route to `stream-logs.`*`Region`*`.amazonaws.com`, which supports VPC endpoints. To set up a VPC endpoint for this API, see Creating a VPC endpoint for CloudWatch Logs .

> **Important**
>
> You can end a session before it times out by closing the session stream or by closing the client that is receiving the stream. The session also ends if the established connection between the client and the server breaks.

For examples of using an SDK to start a Live Tail session, see Start a Live Tail session using an AWS SDK.

## Request Syntax

```
{
   "logEventFilterPattern": "string",
   "logGroupIdentifiers": [ "string" ],
   "logStreamNamePrefixes": [ "string" ],
   "logStreamNames": [ "string" ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logEventFilterPattern**

An optional pattern to use to filter the results to include only log events that match the pattern. For example, a filter pattern of `error 404` causes only log events that include both `error` and `404` to be included in the Live Tail stream.

Regular expression filter patterns are supported.

For more information about filter pattern syntax, see Filter and Pattern Syntax.

Type: String

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

Required: No

### logGroupIdentifiers

An array where each item in the array is a log group to include in the Live Tail session.

Specify each log group by its ARN.

If you specify an ARN, the ARN can't end with an asterisk (*).

> **Note**
>
> You can include up to 10 log groups.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

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

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

Required: Yes

### logStreamNamePrefixes

If you specify this parameter, then only log events in the log streams that have names that start with the prefixes that you specify here are included in the Live Tail session.

If you specify this field, you can't also specify the `logStreamNames` field.

> **Note**
>
> You can specify this parameter only if you specify only one log group in `logGroupIdentifiers`.

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

**logStreamNames**

If you specify this parameter, then only log events in the log streams that you specify here are included in the Live Tail session.

If you specify this field, you can't also specify the `logStreamNamePrefixes` field.

> **Note**
>
> You can specify this parameter only if you specify only one log group in `logGroupIdentifiers`.

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

## Response Syntax

```
{
   "responseStream": {
      "sessionStart": {
         "logEventFilterPattern": "string",
         "logGroupIdentifiers": [ "string" ],
         "logStreamNamePrefixes": [ "string" ],
         "logStreamNames": [ "string" ],
         "requestId": "string",
         "sessionId": "string"
      },
      "SessionStreamingException": {
      },
      "SessionTimeoutException": {
      },
      "sessionUpdate": {
```

```
         "sessionMetadata": {
            "sampled": boolean
         },
         "sessionResults": [
            {
               "ingestionTime": number,
               "logGroupIdentifier": "string",
               "logStreamName": "string",
               "message": "string",
               "timestamp": number
            }
         ]
      }
   }
}
```

## Response Elements

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

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

**responseStream**

An object that includes the stream returned by your request. It can include both log events and exceptions.

Type: StartLiveTailResponseStream object

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

**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

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

## See Also

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

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

# StartQuery

Starts a query of one or more log groups or data sources using CloudWatch Logs Insights. You specify the log groups or data sources and time range to query and the query string to use. You can query up to 10 data sources in a single query.

For more information, see CloudWatch Logs Insights Query Syntax.

After you run a query using `StartQuery`, the query results are stored by CloudWatch Logs. You can use GetQueryResults to retrieve the results of a query, using the `queryId` that `StartQuery` returns.

Interactive queries started with `StartQuery` share concurrency limits with automated scheduled query executions. Both types of queries count toward the same regional concurrent query quota, so high scheduled query activity may affect the availability of concurrent slots for interactive queries.

**Note**

To specify the log groups to query, a `StartQuery` operation must include one of the following:

- Either exactly one of the following parameters: `logGroupName`, `logGroupNames`, or `logGroupIdentifiers`
- Or the `queryString` must include a SOURCE command to select log groups for the query. The SOURCE command can select log groups based on log group name prefix, account ID, and log class, or select data sources using dataSource syntax in LogsQL, PPL, and SQL. In LogsQL, the SOURCE command also supports filtering by log group tags.

  For more information about the SOURCE command, see SOURCE.

If you have associated a AWS KMS key with the query results in this account, then StartQuery uses that key to encrypt the results when it stores them. If no key is associated with query results, the query results are encrypted with the default CloudWatch Logs encryption method.

Queries time out after 60 minutes of runtime. If your queries are timing out, reduce the time range being searched or partition your query into a number of queries.

If you are using CloudWatch cross-account observability, you can use this operation in a monitoring account to start a query in a linked source account. For more information, see CloudWatch cross-

account observability. For a cross-account `StartQuery` operation, the query definition must be defined in the monitoring account.

You can have up to 100 concurrent CloudWatch Logs insights queries, including queries that have been added to dashboards.

## Request Syntax

```
{
   "endTime": number,
   "limit": number,
   "logGroupIdentifiers": [ "string" ],
   "logGroupName": "string",
   "logGroupNames": [ "string" ],
   "queryLanguage": "string",
   "queryString": "string",
   "startTime": number
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### endTime

The end of the time range to query. The range is inclusive, so the specified end time is included in the query. Specified as epoch time, the number of seconds since `January 1, 1970, 00:00:00` UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### limit

The maximum number of log events to return from the query. The maximum limit is 100,000. The maximum events returned in a single GetQueryResults API call is 10,000 log events per request. You can retrieve up to 100,000 log event results from a query by paginating with the

`nextToken`. 100,000 limit is only supported for Logs Insights QL and is currently not supported for PPL and SQL query languages.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100000.

Required: No

**logGroupIdentifiers**

The list of log groups to query. You can include up to 50 log groups.

You can specify them by the log group name or ARN. If a log group that you're querying is in a source account and you're using a monitoring account, you must specify the ARN of the log group here. The query definition must also be defined in the monitoring account.

If you specify an ARN, use the format arn:aws:logs:*region*:*account-id*:log-group:*log_group_name* Don't include an * at the end.

A `StartQuery` operation must include exactly one of the following parameters: `logGroupName`, `logGroupNames`, or `logGroupIdentifiers`. The exception is queries using the OpenSearch Service SQL query language, where you specify the log group names inside the `querystring` instead of here.

Type: Array of strings

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

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

Required: No

**logGroupName**

The log group on which to perform the query.

> **Note**
>
> A `StartQuery` operation must include exactly one of the following parameters: `logGroupName`, `logGroupNames`, or `logGroupIdentifiers`. The exception is queries using the OpenSearch Service SQL query language, where you specify the log group names inside the `querystring` instead of here.

Type: String

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

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

Required: No

**logGroupNames**

The list of log groups to be queried. You can include up to 50 log groups.

> **Note**
>
> A `StartQuery` operation must include exactly one of the following parameters: `logGroupName`, `logGroupNames`, or `logGroupIdentifiers`. The exception is queries using the OpenSearch Service SQL query language, where you specify the log group names inside the `querystring` instead of here.

Type: Array of strings

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

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

Required: No

**queryLanguage**

Specify the query language to use for this query. The options are Logs Insights QL, OpenSearch PPL, and OpenSearch SQL. For more information about the query languages that CloudWatch Logs supports, see Supported query languages.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: No

**queryString**

The query string to use. For more information, see CloudWatch Logs Insights Query Syntax.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10000.

Required: Yes

**startTime**

The beginning of the time range to query. The range is inclusive, so the specified start time is included in the query. Specified as epoch time, the number of seconds since `January 1, 1970, 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

## Response Syntax

```
{
   "queryId": "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.

**queryId**

The unique ID of the query.

Type: String

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

## Errors

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

**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

**MalformedQueryException**

The query string is not valid. Details about this error are displayed in a `QueryCompileError` object. For more information, see QueryCompileError.

For more information about valid query syntax, see CloudWatch Logs Insights Query Syntax.

**queryCompileError**

Reserved.

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

# Examples

## Example: Start a query

This example starts a query of three log groups, specifying the query string and start time. It also limits the results to the most recent 100 matching events.

**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.StartQuery
{
    "limit": 100,
    "logGroupNames": [
        "LogGroupName1",
        "LogGroupName2",
        "LogGroupName3"
    ],
    "queryString": "stats count(*) by eventSource, eventName, awsRegion",
    "startTime": 1546300800,
    "endTime": 1546309800
}
```

### Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
   "queryId": "12ab3456-12ab-123a-789e-1234567890ab"
}
```

## Example: Start a query

This example starts a query for a log group ARN and specifies a query string. It also specifies the request start and end times.

### Sample Request

```
{
```

```
    "limit": 100,
    "logGroupIdentifiers": [
        "arn:aws:logs:us-east-1:123456789012:log-group:monitoring-logGroup-1234"
     ],
    "queryString": "stats count(*) by eventSource, eventName, awsRegion",
    "startTime": 1546300800,
    "endTime": 1546309800
}
```

### Sample Response

```
{
    "queryId": "12ab3456-12ab-123a-789e-1234567890ab"
}
```

## Example: Start a query using field indexing and the source command

This example queries all log groups in the `111122223333` account that have log group names that start with `my-log`. It leverages field indexing so that only log groups and log events known to match the indexed field `transactionId` are processed. Only log events that include the value `tx-001` for the `transactionId` field will be returned.

### 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.StartQuery
{
 "queryString":
  "source logGroups(namePrefix: ['my-log'], accountIdentifiers: ['accountId' =
 '111122223333'])
 | filterIndex transactionId = 'tx-001'",
    "startTime": 1722704400000,
```

```
    "endTime": 1722705229849
}
```

## See Also

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

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

# StopQuery

Stops a CloudWatch Logs Insights query that is in progress. If the query has already ended, the operation returns an error indicating that the specified query is not running.

This operation can be used to cancel both interactive queries and individual scheduled query executions. When used with scheduled queries, `StopQuery` cancels only the specific execution identified by the query ID, not the scheduled query configuration itself.

## Request Syntax

```
{
   "queryId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**queryId**

The ID number of the query to stop. To find this ID number, use `DescribeQueries`.

Type: String

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

Required: Yes

## Response Syntax

```
{
   "success": 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.

**success**

This is true if the query was stopped by the `StopQuery` operation.

Type: Boolean

## Errors

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

**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

## Examples

### Stop a query that is currently running

The following example stops the specified query, if it is currently running.

**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.StopQuery
{
   "queryId": "12ab3456-12ab-123a-789e-1234567890ab"
}
```

### Sample Response

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

## See Also

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

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

- AWS SDK for Ruby V3

# TagLogGroup

> **Important**
>
> The TagLogGroup operation is on the path to deprecation. We recommend that you use TagResource instead.

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

To list the tags for a log group, use ListTagsForResource. To remove tags, use UntagResource.

For more information about tags, see Tag Log Groups in Amazon CloudWatch Logs in the *Amazon CloudWatch Logs User Guide*.

CloudWatch Logs doesn't support IAM policies that prevent users from assigning specified tags to log groups using the `aws:Resource/key-name` or `aws:TagKeys` condition keys. For more information about using tags to control access, see Controlling access to Amazon Web Services resources using tags.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupName**

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**

The key-value pairs to use for the tags.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: 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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

# Examples

## 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 V2

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

# TagResource

Assigns one or more tags (key-value pairs) to the specified CloudWatch Logs resource. Currently, the only CloudWatch Logs resources that can be tagged are log groups and destinations.

Tags can help you organize and categorize your resources. You can also use them to scope user permissions by granting a user permission to access or change only resources with certain tag values.

Tags don't have any semantic meaning to AWS and are interpreted strictly as strings of characters.

You can use the `TagResource` action with a resource that already has tags. If you specify a new tag key for the alarm, this tag is appended to the list of tags associated with the alarm. If you specify a tag key that is already associated with the alarm, the new tag value that you specify replaces the previous value for that tag.

You can associate as many as 50 tags with a CloudWatch Logs resource.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**resourceArn**

The ARN of the resource that you're adding tags to.

The ARN format of a log group is `arn:aws:logs:`*`Region`*`:`*`account-id`*`:log-group:`*`log-group-name`*

The ARN format of a destination is `arn:aws:logs:`*`Region`*`:`*`account-id`*`:destination:`*`destination-name`*

For more information about ARN format, see CloudWatch Logs resources and operations.

Type: String

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

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

Required: Yes

**tags**

The list of key-value pairs to associate with the resource.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: 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 Error Types.

**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

**TooManyTagsException**

A resource can have no more than 50 tags.

**resourceName**

The name of the resource.

HTTP Status Code: 400

## See Also

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

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

# 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.

The request accepts the following data in JSON format.

**filterPattern**

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event can contain timestamps, 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**

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**

The matched events.

Type: Array of MetricFilterMatchRecord objects

## Errors

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

**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] Unhanded 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] Unhanded 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] Unhanded 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] Unhanded 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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

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

# TestTransformer

Use this operation to test a log transformer. You enter the transformer configuration and a set of log events to test with. The operation responds with an array that includes the original log events and the transformed versions.

## Request Syntax

```
{
   "logEventMessages": [ "string" ],
   "transformerConfig": [
      {
         "addKeys": {
            "entries": [
               {
                  "key": "string",
                  "overwriteIfExists": boolean,
                  "value": "string"
               }
            ]
         },
         "copyValue": {
            "entries": [
               {
                  "overwriteIfExists": boolean,
                  "source": "string",
                  "target": "string"
               }
            ]
         },
         "csv": {
            "columns": [ "string" ],
            "delimiter": "string",
            "destination": "string",
            "quoteCharacter": "string",
            "source": "string"
         },
         "dateTimeConverter": {
            "locale": "string",
            "matchPatterns": [ "string" ],
            "source": "string",
            "sourceTimezone": "string",
```

```
            "target": "string",
            "targetFormat": "string",
            "targetTimezone": "string"
         },
         "deleteKeys": {
            "withKeys": [ "string" ]
         },
         "grok": {
            "match": "string",
            "source": "string"
         },
         "listToMap": {
            "flatten": boolean,
            "flattenedElement": "string",
            "key": "string",
            "source": "string",
            "target": "string",
            "valueKey": "string"
         },
         "lowerCaseString": {
            "withKeys": [ "string" ]
         },
         "moveKeys": {
            "entries": [
               {
                  "overwriteIfExists": boolean,
                  "source": "string",
                  "target": "string"
               }
            ]
         },
         "parseCloudfront": {
            "source": "string"
         },
         "parseJSON": {
            "destination": "string",
            "source": "string"
         },
         "parseKeyValue": {
            "destination": "string",
            "fieldDelimiter": "string",
            "keyPrefix": "string",
            "keyValueDelimiter": "string",
            "nonMatchValue": "string",
```

```
            "overwriteIfExists": boolean,
            "source": "string"
         },
         "parsePostgres": {
            "source": "string"
         },
         "parseRoute53": {
            "source": "string"
         },
         "parseToOCSF": {
            "eventSource": "string",
            "mappingVersion": "string",
            "ocsfVersion": "string",
            "source": "string"
         },
         "parseVPC": {
            "source": "string"
         },
         "parseWAF": {
            "source": "string"
         },
         "renameKeys": {
            "entries": [
               {
                  "key": "string",
                  "overwriteIfExists": boolean,
                  "renameTo": "string"
               }
            ]
         },
         "splitString": {
            "entries": [
               {
                  "delimiter": "string",
                  "source": "string"
               }
            ]
         },
         "substituteString": {
            "entries": [
               {
                  "from": "string",
                  "source": "string",
                  "to": "string"
```

```
                }
             ]
          },
          "trimString": {
             "withKeys": [ "string" ]
          },
          "typeConverter": {
             "entries": [
                {
                   "key": "string",
                   "type": "string"
                }
             ]
          },
          "upperCaseString": {
             "withKeys": [ "string" ]
          }
       }
    ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**logEventMessages**

An array of the raw log events that you want to use to test this transformer.

Type: Array of strings

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

Length Constraints: Minimum length of 1.

Required: Yes

**transformerConfig**

This structure contains the configuration of this log transformer that you want to test. A log transformer is an array of processors, where each processor applies one type of transformation to the log events that are ingested.

Type: Array of Processor objects

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

Required: Yes

## Response Syntax

```
{
   "transformedLogs": [
      {
         "eventMessage": "string",
         "eventNumber": number,
         "transformedEventMessage": "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.

**transformedLogs**

An array where each member of the array includes both the original version and the transformed version of one of the log events that you input.

Type: Array of TransformedLogRecord objects

## Errors

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

**InvalidOperationException**

The operation is not valid on the specified resource.

HTTP Status Code: 400

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

# UntagLogGroup

> **Important**
>
> The UntagLogGroup operation is on the path to deprecation. We recommend that you use UntagResource instead.

Removes the specified tags from the specified log group.

To list the tags for a log group, use ListTagsForResource. To add tags, use TagResource.

When using IAM policies to control tag management for CloudWatch Logs log groups, the condition keys `aws:Resource/key-name` and `aws:TagKeys` cannot be used to restrict which tags users can assign.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

**logGroupName**

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**

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 Error Types.

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

## Examples

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

# UntagResource

Removes one or more tags from the specified resource.

## Request Syntax

```
{
   "resourceArn": "string",
   "tagKeys": [ "string" ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**resourceArn**

The ARN of the CloudWatch Logs resource that you're removing tags from.

The ARN format of a log group is `arn:aws:logs:Region:account-id:log-group:log-group-name`

The ARN format of a destination is `arn:aws:logs:Region:account-id:destination:destination-name`

For more information about ARN format, see CloudWatch Logs resources and operations.

Type: String

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

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

Required: Yes

**tagKeys**

The list of tag keys to remove from the resource.

Type: Array of strings

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

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

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

Required: Yes

## Response 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 Error Types.

**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 V2
- AWS SDK for .NET V4
- AWS SDK for C++

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

# UpdateAnomaly

Use this operation to *suppress* anomaly detection for a specified anomaly or pattern. If you suppress an anomaly, CloudWatch Logs won't report new occurrences of that anomaly and won't update that anomaly with new data. If you suppress a pattern, CloudWatch Logs won't report any anomalies related to that pattern.

You must specify either `anomalyId` or `patternId`, but you can't specify both parameters in the same operation.

If you have previously used this operation to suppress detection of a pattern or anomaly, you can use it again to cause CloudWatch Logs to end the suppression. To do this, use this operation and specify the anomaly or pattern to stop suppressing, and omit the `suppressionType` and `suppressionPeriod` parameters.

## Request Syntax

```
{
   "anomalyDetectorArn": "string",
   "anomalyId": "string",
   "baseline": boolean,
   "patternId": "string",
   "suppressionPeriod": {
      "suppressionUnit": "string",
      "value": number
   },
   "suppressionType": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**anomalyDetectorArn**

The ARN of the anomaly detector that this operation is to act on.

Type: String

Length Constraints: Minimum length of 1.

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

Required: Yes

**anomalyId**

If you are suppressing or unsuppressing an anomaly, specify its unique ID here. You can find anomaly IDs by using the ListAnomalies operation.

Type: String

Length Constraints: Fixed length of 36.

Required: No

**baseline**

Set this to `true` to prevent CloudWatch Logs from displaying this behavior as an anomaly in the future. The behavior is then treated as baseline behavior. However, if similar but more severe occurrences of this behavior occur in the future, those will still be reported as anomalies.

The default is `false`

Type: Boolean

Required: No

**patternId**

If you are suppressing or unsuppressing an pattern, specify its unique ID here. You can find pattern IDs by using the ListAnomalies operation.

Type: String

Length Constraints: Fixed length of 32.

Required: No

**suppressionPeriod**

If you are temporarily suppressing an anomaly or pattern, use this structure to specify how long the suppression is to last.

Type: SuppressionPeriod object

Required: No

**suppressionType**

Use this to specify whether the suppression to be temporary or infinite. If you specify `LIMITED`, you must also specify a `suppressionPeriod`. If you specify `INFINITE`, any value for `suppressionPeriod` is ignored.

Type: String

Valid Values: `LIMITED | INFINITE`

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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# UpdateDeliveryConfiguration

Use this operation to update the configuration of a delivery to change either the S3 path pattern or the format of the delivered logs. You can't use this operation to change the source or destination of the delivery.

## Request Syntax

```
{
   "fieldDelimiter": "string",
   "id": "string",
   "recordFields": [ "string" ],
   "s3DeliveryConfiguration": {
      "enableHiveCompatiblePath": boolean,
      "suffixPath": "string"
   }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**fieldDelimiter**

The field delimiter to use between record fields when the final output format of a delivery is in `Plain`, `W3C`, or `Raw` format.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 5.

Required: No

**id**

The ID of the delivery to be updated by this request.

Type: String

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

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

Required: Yes

**recordFields**

The list of record fields to be delivered to the destination, in order. If the delivery's log source has mandatory fields, they must be included in this list.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 128 items.

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

Required: No

**s3DeliveryConfiguration**

This structure contains parameters that are valid only when the delivery's delivery destination is an S3 bucket.

Type: S3DeliveryConfiguration object

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 Error Types.

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**ConflictException**

This operation attempted to create a resource that 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

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# UpdateLogAnomalyDetector

Updates an existing log anomaly detector.

## Request Syntax

```
{
   "anomalyDetectorArn": "string",
   "anomalyVisibilityTime": number,
   "enabled": boolean,
   "evaluationFrequency": "string",
   "filterPattern": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**anomalyDetectorArn**

The ARN of the anomaly detector that you want to update.

Type: String

Length Constraints: Minimum length of 1.

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

Required: Yes

**anomalyVisibilityTime**

The number of days to use as the life cycle of anomalies. After this time, anomalies are automatically baselined and the anomaly detector model will treat new occurrences of similar event as normal. Therefore, if you do not correct the cause of an anomaly during this time, it will be considered normal going forward and will not be detected.

Type: Long

Valid Range: Minimum value of 7. Maximum value of 90.

Required: No

**enabled**

Use this parameter to pause or restart the anomaly detector.

Type: Boolean

Required: Yes

**evaluationFrequency**

Specifies how often the anomaly detector runs and look for anomalies. Set this value according to the frequency that the log group receives new logs. For example, if the log group receives new log events every 10 minutes, then setting `evaluationFrequency` to `FIFTEEN_MIN` might be appropriate.

Type: String

Valid Values: `ONE_MIN | FIVE_MIN | TEN_MIN | FIFTEEN_MIN | THIRTY_MIN | ONE_HOUR`

Required: No

**filterPattern**

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event can contain timestamps, 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

## 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 Error Types.

**InvalidParameterException**

A parameter is specified incorrectly.

HTTP Status Code: 400

**OperationAbortedException**

Multiple concurrent 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

## See Also

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

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

# UpdateLookupTable

Updates an existing lookup table by replacing all of its content with new CSV data or CloudWatch Logs query results. After the update completes, queries that use this table use the new data.

This is a full replacement operation. All existing content is replaced. You must specify either `tableBody` or `queryId`, but not both.

## Request Syntax

```
{
   "description": "string",
   "kmsKeyId": "string",
   "lookupTableArn": "string",
   "queryId": "string",
   "tableBody": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**description**

An updated description of the lookup table.

Type: String

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

Required: No

**kmsKeyId**

The ARN of the AWS KMS key to use to encrypt the lookup table data. You can use this parameter to add, update, or remove the KMS key. To remove the KMS key and use an AWS-owned key instead, specify an empty string.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**lookupTableArn**

The ARN of the lookup table to update.

Type: String

Required: Yes

**queryId**

The ID of a completed or cancelled CloudWatch Logs query whose results replace the lookup table content. A cancelled query replaces the content with the partial results that were available when the query was stopped.

You must specify either `tableBody` or `queryId`, but not both.

Type: String

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

Required: No

**tableBody**

The new CSV content to replace the existing data. The first row must be a header row with column names. The content must use UTF-8 encoding and not exceed 10 MB.

You must specify either `tableBody` or `queryId`, but not both.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10485760.

Required: No

## Response Syntax

```
{
   "lastUpdatedTime": number,
   "lookupTableArn": "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.

**lastUpdatedTime**

The time when the lookup table 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.

**lookupTableArn**

The ARN of the lookup table that was updated.

Type: String

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

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

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# UpdateScheduledQuery

Updates an existing scheduled query with new configuration. This operation uses PUT semantics, allowing modification of query parameters, schedule, and destinations.

## Request Syntax

```
{
   "description": "string",
   "destinationConfiguration": {
      "lookupTableConfiguration": {
         "description": "string",
         "kmsKeyId": "string",
         "roleArn": "string",
         "tableName": "string",
         "tags": {
            "string" : "string"
         }
      },
      "s3Configuration": {
         "destinationIdentifier": "string",
         "kmsKeyId": "string",
         "ownerAccountId": "string",
         "roleArn": "string"
      }
   },
   "endTimeOffset": number,
   "executionRoleArn": "string",
   "identifier": "string",
   "logGroupIdentifiers": [ "string" ],
   "queryLanguage": "string",
   "queryString": "string",
   "scheduleEndTime": number,
   "scheduleExpression": "string",
   "scheduleStartTime": number,
   "startTimeOffset": number,
   "state": "string",
   "timezone": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

**description**

An updated description for the scheduled query.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**destinationConfiguration**

The updated configuration for where to deliver query results.

Type: DestinationConfiguration object

Required: No

**endTimeOffset**

The updated time offset in seconds that defines the end of the lookback period for the query.

Type: Long

Required: No

**executionRoleArn**

The updated ARN of the IAM role that grants permissions to execute the query and deliver results.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**identifier**

The ARN or name of the scheduled query to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

Required: Yes

**logGroupIdentifiers**

The updated array of log group names or ARNs to query.

Type: Array of strings

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

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

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

Required: No

**queryLanguage**

The updated query language for the scheduled query.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: Yes

**queryString**

The updated query string to execute.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10000.

Required: Yes

**scheduleEndTime**

The updated end time for the scheduled query in Unix epoch format.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**scheduleExpression**

The updated cron expression that defines when the scheduled query runs.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

**scheduleStartTime**

The updated start time for the scheduled query in Unix epoch format.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**startTimeOffset**

The updated time offset in seconds that defines the lookback period for the query.

Type: Long

Required: No

**state**

The updated state of the scheduled query.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

**timezone**

The updated timezone for evaluating the schedule expression.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## Response Syntax

```
{
   "creationTime": number,
   "description": "string",
   "destinationConfiguration": {
      "lookupTableConfiguration": {
         "description": "string",
         "kmsKeyId": "string",
         "roleArn": "string",
         "tableName": "string",
         "tags": {
            "string" : "string"
         }
      },
      "s3Configuration": {
         "destinationIdentifier": "string",
         "kmsKeyId": "string",
         "ownerAccountId": "string",
         "roleArn": "string"
      }
   },
   "endTimeOffset": number,
   "executionRoleArn": "string",
   "lastExecutionStatus": "string",
   "lastTriggeredTime": number,
   "lastUpdatedTime": number,
   "logGroupIdentifiers": [ "string" ],
   "name": "string",
   "queryLanguage": "string",
   "queryString": "string",
   "scheduledQueryArn": "string",
   "scheduleEndTime": number,
   "scheduleExpression": "string",
   "scheduleStartTime": number,
   "scheduleType": "string",
   "startTimeOffset": number,
```

```
    "state": "string",
    "timezone": "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.

**creationTime**

The timestamp when the scheduled query was originally created.

Type: Long

Valid Range: Minimum value of 0.

**description**

The description of the updated scheduled query.

Type: String

Length Constraints: Maximum length of 1024.

**destinationConfiguration**

The destination configuration of the updated scheduled query.

Type: DestinationConfiguration object

**endTimeOffset**

The end time offset in seconds of the updated scheduled query.

Type: Long

**executionRoleArn**

The execution role ARN of the updated scheduled query.

Type: String

Length Constraints: Minimum length of 1.

**lastExecutionStatus**

The status of the most recent execution of the updated scheduled query.

Type: String

Valid Values: `Running | InvalidQuery | Complete | Failed | Timeout`

**lastTriggeredTime**

The timestamp when the updated scheduled query was last executed.

Type: Long

Valid Range: Minimum value of 0.

**lastUpdatedTime**

The timestamp when the scheduled query was last updated.

Type: Long

Valid Range: Minimum value of 0.

**logGroupIdentifiers**

The log groups queried by the updated scheduled query.

Type: Array of strings

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

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

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

**name**

The name of the updated scheduled query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

**queryLanguage**

The query language of the updated scheduled query.

Type: String

Valid Values: `CWLI | SQL | PPL`

**queryString**

The query string of the updated scheduled query.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10000.

**scheduledQueryArn**

The ARN of the updated scheduled query.

Type: String

**scheduleEndTime**

The end time of the updated scheduled query.

Type: Long

Valid Range: Minimum value of 0.

**scheduleExpression**

The cron expression of the updated scheduled query.

Type: String

Length Constraints: Maximum length of 256.

**scheduleStartTime**

The start time of the updated scheduled query.

Type: Long

Valid Range: Minimum value of 0.

**scheduleType**

The schedule type of the updated scheduled query.

Type: String

Valid Values: `CUSTOMER_MANAGED | AWS_MANAGED`

**startTimeOffset**

The time offset of the updated scheduled query.

Type: Long

**state**

The state of the updated scheduled query.

Type: String

Valid Values: `ENABLED | DISABLED`

**timezone**

The timezone of the updated scheduled query.

Type: String

Length Constraints: Minimum length of 1.

## Errors

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

**AccessDeniedException**

You don't have sufficient permissions to perform this action.

HTTP Status Code: 400

**ConflictException**

This operation attempted to create a resource that already exists.

HTTP Status Code: 400

**InternalServerException**

An internal server error occurred while processing the request. This exception is returned when the service encounters an unexpected condition that prevents it from fulfilling the request.

HTTP Status Code: 500

**ResourceNotFoundException**

The specified resource does not exist.

HTTP Status Code: 400

**ThrottlingException**

The request was throttled because of quota limits.

HTTP Status Code: 400

**ValidationException**

One of the parameters for the request is not valid.

HTTP Status Code: 400

## See Also

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

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

# 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:

- AccountPolicy
- AddKeyEntry
- AddKeys
- AggregateLogGroupSummary
- Anomaly
- AnomalyDetector
- ConfigurationTemplate
- ConfigurationTemplateDeliveryConfigValues
- CopyValue
- CopyValueEntry
- CSV
- DataSource
- DataSourceFilter
- DateTimeConverter
- DeleteKeys
- Delivery
- DeliveryDestination
- DeliveryDestinationConfiguration
- DeliverySource
- DeliverySourceConfigurationSchema

- Destination
- DestinationConfiguration
- Entity
- ExportTask
- ExportTaskExecutionInfo
- ExportTaskStatus
- FieldIndex
- FieldsData
- FilteredLogEvent
- GetLogObjectResponseStream
- Grok
- GroupingIdentifier
- Import
- ImportBatch
- ImportFilter
- ImportStatistics
- IndexPolicy
- InputLogEvent
- IntegrationDetails
- IntegrationSummary
- ListToMap
- LiveTailSessionLogEvent
- LiveTailSessionMetadata
- LiveTailSessionStart
- LiveTailSessionUpdate
- LogEvent
- LogFieldsListItem
- LogFieldType
- LogGroup
- LogGroupField

- LogGroupSummary
- LogStream
- LookupTable
- LookupTableConfiguration
- LowerCaseString
- MetricFilter
- MetricFilterMatchRecord
- MetricTransformation
- MoveKeyEntry
- MoveKeys
- OpenSearchApplication
- OpenSearchCollection
- OpenSearchDataAccessPolicy
- OpenSearchDataSource
- OpenSearchEncryptionPolicy
- OpenSearchIntegrationDetails
- OpenSearchLifecyclePolicy
- OpenSearchNetworkPolicy
- OpenSearchResourceConfig
- OpenSearchResourceStatus
- OpenSearchWorkspace
- OutputLogEvent
- ParseCloudfront
- ParseJSON
- ParseKeyValue
- ParsePostgres
- ParseRoute53
- ParseToOCSF
- ParseVPC
- ParseWAF

- PatternToken
- Policy
- Processor
- QueryCompileError
- QueryCompileErrorLocation
- QueryDefinition
- QueryInfo
- QueryParameter
- QueryStatistics
- RecordField
- RejectedEntityInfo
- RejectedLogEventsInfo
- RenameKeyEntry
- RenameKeys
- ResourceConfig
- ResourcePolicy
- ResultField
- S3Configuration
- S3DeliveryConfiguration
- S3TableIntegrationSource
- S3TablesIntegration
- ScheduledQueryDestination
- ScheduledQuerySummary
- SearchedLogStream
- SplitString
- SplitStringEntry
- StartLiveTailResponseStream
- SubscriptionFilter
- SubstituteString
- SubstituteStringEntry

- SuppressionPeriod
- SyslogConfiguration
- TagFilter
- TransformedLogRecord
- TriggerHistoryRecord
- TrimString
- TypeConverter
- TypeConverterEntry
- UpperCaseString

# AccountPolicy

A structure that contains information about one CloudWatch Logs account policy.

## Contents

**accountId**

The AWS account ID that the policy applies to.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `^\d{12}$`

Required: No

**lastUpdatedTime**

The date and time that this policy was most recently updated.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**policyDocument**

The policy document for this account policy.

The JSON specified in `policyDocument` can be up to 30,720 characters.

Type: String

Required: No

**policyName**

The name of the account policy.

Type: String

Required: No

**policyType**

The type of policy for this account policy.

Type: String

Valid Values: `DATA_PROTECTION_POLICY | SUBSCRIPTION_FILTER_POLICY | FIELD_INDEX_POLICY | TRANSFORMER_POLICY | METRIC_EXTRACTION_POLICY`

Required: No

**scope**

The scope of the account policy.

Type: String

Valid Values: `ALL`

Required: No

**selectionCriteria**

The log group selection criteria that is used for this 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 Java V2
- AWS SDK for Ruby V3

# AddKeyEntry

This object defines one key that will be added with the addKeys processor.

## Contents

**key**

The key of the new entry to be added to the log event

Type: String

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

Required: Yes

**value**

The value of the new entry to be added to the log event

Type: String

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

Required: Yes

**overwriteIfExists**

Specifies whether to overwrite the value if the key already exists in the log event. If you omit this, the default is `false`.

Type: Boolean

Required: No

## See Also

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

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# AddKeys

This processor adds new key-value pairs to the log event.

For more information about this processor including examples, see addKeys in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of objects, where each object contains the information about one key to add to the log event.

Type: Array of AddKeyEntry objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

## See Also

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

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

# AggregateLogGroupSummary

Contains an aggregate summary of log groups grouped by data source characteristics, including the count of log groups and their grouping identifiers.

## Contents

**groupingIdentifiers**

An array of key-value pairs that identify the data source characteristics used to group the log groups.

The size and content of this array depends on the `groupBy` parameter specified in the request.

Type: Array of GroupingIdentifier objects

Required: No

**logGroupCount**

The number of log groups in this aggregate summary group.

Type: Integer

Required: No

## See Also

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

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

# Anomaly

This structure represents one anomaly that has been found by a logs anomaly detector.

For more information about patterns and anomalies, see CreateLogAnomalyDetector.

## Contents

**active**

Specifies whether this anomaly is still ongoing.

Type: Boolean

Required: Yes

**anomalyDetectorArn**

The ARN of the anomaly detector that identified this anomaly.

Type: String

Length Constraints: Minimum length of 1.

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

Required: Yes

**anomalyId**

The unique ID that CloudWatch Logs assigned to this anomaly.

Type: String

Length Constraints: Fixed length of 36.

Required: Yes

**description**

A human-readable description of the anomaly. This description is generated by CloudWatch Logs.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**firstSeen**

The date and time when the anomaly detector first saw this anomaly. It is specified as epoch time, which is the number of seconds since `January 1, 1970, 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

**histogram**

A map showing times when the anomaly detector ran, and the number of occurrences of this anomaly that were detected at each of those runs. The times are specified in epoch time, which is the number of seconds since `January 1, 1970, 00:00:00 UTC`.

Type: String to long map

Key Length Constraints: Minimum length of 1.

Required: Yes

**lastSeen**

The date and time when the anomaly detector most recently saw this anomaly. It is specified as epoch time, which is the number of seconds since `January 1, 1970, 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

**logGroupArnList**

An array of ARNS of the log groups that contained log events considered to be part of this anomaly.

Type: Array of strings

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

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

Required: Yes

**logSamples**

An array of sample log event messages that are considered to be part of this anomaly.

Type: Array of LogEvent objects

Required: Yes

**patternId**

The ID of the pattern used to help identify this anomaly.

Type: String

Length Constraints: Fixed length of 32.

Required: Yes

**patternString**

The pattern used to help identify this anomaly, in string format.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**patternTokens**

An array of structures where each structure contains information about one token that makes up the pattern.

Type: Array of PatternToken objects

Required: Yes

**state**

Indicates the current state of this anomaly. If it is still being treated as an anomaly, the value is `Active`. If you have suppressed this anomaly by using the UpdateAnomaly operation, the value is `Suppressed`. If this behavior is now considered to be normal, the value is `Baseline`.

Type: String

Valid Values: `Active | Suppressed | Baseline`

Required: Yes

**isPatternLevelSuppression**

If this anomaly is suppressed, this field is `true` if the suppression is because the pattern is suppressed. If `false`, then only this particular anomaly is suppressed.

Type: Boolean

Required: No

**patternRegex**

The pattern used to help identify this anomaly, in regular expression format.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**priority**

The priority level of this anomaly, as determined by CloudWatch Logs. Priority is computed based on log severity labels such as `FATAL` and `ERROR` and the amount of deviation from the baseline. Possible values are `HIGH`, `MEDIUM`, and `LOW`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**suppressed**

Indicates whether this anomaly is currently suppressed. To suppress an anomaly, use UpdateAnomaly.

Type: Boolean

Required: No

**suppressedDate**

If the anomaly is suppressed, this indicates when it was suppressed.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**suppressedUntil**

If the anomaly is suppressed, this indicates when the suppression will end. If this value is `0`, the anomaly was suppressed with no expiration, with the `INFINITE` value.

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 Java V2
- AWS SDK for Ruby V3

# AnomalyDetector

Contains information about one anomaly detector in the account.

## Contents

**anomalyDetectorArn**

The ARN of the anomaly detector.

Type: String

Length Constraints: Minimum length of 1.

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

Required: No

**anomalyDetectorStatus**

Specifies the current status of the anomaly detector. To pause an anomaly detector, use the `enabled` parameter in the UpdateLogAnomalyDetector operation.

Type: String

Valid Values: `INITIALIZING | TRAINING | ANALYZING | FAILED | DELETED | PAUSED`

Required: No

**anomalyVisibilityTime**

The number of days used as the life cycle of anomalies. After this time, anomalies are automatically baselined and the anomaly detector model will treat new occurrences of similar event as normal.

Type: Long

Valid Range: Minimum value of 7. Maximum value of 90.

Required: No

**creationTimeStamp**

The date and time when this anomaly detector was created.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**detectorName**

The name of the anomaly detector.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**evaluationFrequency**

Specifies how often the anomaly detector runs and look for anomalies.

Type: String

Valid Values: `ONE_MIN | FIVE_MIN | TEN_MIN | FIFTEEN_MIN | THIRTY_MIN | ONE_HOUR`

Required: No

**filterPattern**

A symbolic description of how CloudWatch Logs should interpret the data in each log event. For example, a log event can contain timestamps, 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

**kmsKeyId**

The ARN of the AWS KMS key assigned to this anomaly detector, if any.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**lastModifiedTimeStamp**

The date and time when this anomaly detector was most recently modified.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupArnList**

A list of the ARNs of the log groups that this anomaly detector watches.

Type: Array of strings

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

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

Required: No

## See Also

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

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

# ConfigurationTemplate

A structure containing information about the deafult settings and available settings that you can use to configure a delivery or a delivery destination.

## Contents

**allowedActionForAllowVendedLogsDeliveryForResource**

The action permissions that a caller needs to have to be able to successfully create a delivery source on the desired resource type when calling PutDeliverySource.

Type: String

Required: No

**allowedFieldDelimiters**

The valid values that a caller can use as field delimiters when calling CreateDelivery or UpdateDeliveryConfiguration on a delivery that delivers in `Plain`, `W3C`, or `Raw` format.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 5.

Required: No

**allowedFields**

The allowed fields that a caller can use in the `recordFields` parameter of a CreateDelivery or UpdateDeliveryConfiguration operation.

Type: Array of RecordField objects

Required: No

**allowedOutputFormats**

The list of delivery destination output formats that are supported by this log source.

Type: Array of strings

Valid Values: `json | plain | w3c | raw | parquet`

Required: No

**allowedSuffixPathFields**

The list of variable fields that can be used in the suffix path of a delivery that delivers to an S3 bucket.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 128 items.

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

Required: No

**defaultDeliveryConfigValues**

A mapping that displays the default value of each property within a delivery's configuration, if it is not specified in the request.

Type: ConfigurationTemplateDeliveryConfigValues object

Required: No

**deliveryDestinationType**

A string specifying which destination type this configuration template applies to.

Type: String

Valid Values: `S3 | CWL | FH | XRAY`

Required: No

**deliverySourceConfiguration**

The schema of the delivery source configuration that is available for this log type. Each element describes a configuration that can be set when calling PutDeliverySource, including the configuration name, type, and default value.

Type: Array of DeliverySourceConfigurationSchema objects

Required: No

**logType**

A string specifying which log type this configuration template applies to.

Type: String

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

Pattern: `[\w]*`

Required: No

**resourceType**

A string specifying which resource type this configuration template applies to.

Type: String

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

Pattern: `[\w-_]*`

Required: No

**s3TablesIntegration**

The S3 Tables integration configuration for this configuration template, including the datasource name and type.

Type: S3TablesIntegration object

Required: No

**service**

A string specifying which service this configuration template applies to. For more information about supported services see Enable logging from AWS services..

Type: String

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

Pattern: `[\w_-]*`

Required: No

## See Also

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

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

# ConfigurationTemplateDeliveryConfigValues

This structure contains the default values that are used for each configuration parameter when you use CreateDelivery to create a deliver under the current service type, resource type, and log type.

## Contents

**fieldDelimiter**

The default field delimiter that is used in a CreateDelivery operation when the field delimiter is not specified in that operation. The field delimiter is used only when the final output delivery is in `Plain`, `W3C`, or `Raw` format.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 5.

Required: No

**recordFields**

The default record fields that will be delivered when a list of record fields is not provided in a CreateDelivery operation.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 128 items.

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

Required: No

**s3DeliveryConfiguration**

The delivery parameters that are used when you create a delivery to a delivery destination that is an S3 Bucket.

Type: S3DeliveryConfiguration object

Required: No

## See Also

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

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

# CopyValue

This processor copies values within a log event. You can also use this processor to add metadata to log events by copying the values of the following metadata keys into the log events: `@logGroupName`, `@logGroupStream`, `@accountId`, `@regionName`.

For more information about this processor including examples, see copyValue in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of `CopyValueEntry` objects, where each object contains the information about one field value to copy.

Type: Array of CopyValueEntry objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

## See Also

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

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

# CopyValueEntry

This object defines one value to be copied with the copyValue processor.

## Contents

**source**

The key to copy.

Type: String

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

Required: Yes

**target**

The key of the field to copy the value to.

Type: String

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

Required: Yes

**overwriteIfExists**

Specifies whether to overwrite the value if the destination key already exists. If you omit this, the default is `false`.

Type: Boolean

Required: No

## See Also

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

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# CSV

The CSV processor parses comma-separated values (CSV) from the log events into columns.

For more information about this processor including examples, see csv in the *CloudWatch Logs User Guide*.

## Contents

**columns**

An array of names to use for the columns in the transformed log event.

If you omit this, default column names (`[column_1, column_2 ...]`) are used.

Type: Array of strings

Array Members: Maximum number of 100 items.

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

Required: No

**delimiter**

The character used to separate each column in the original comma-separated value log event. If you omit this, the processor looks for the comma `,` character as the delimiter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2.

Required: No

**destination**

The path to the parent field to put transformed key value pairs under. If you omit this value, the key value pairs will be placed under the root node.

Type: String

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

Required: No

**quoteCharacter**

The character used used as a text qualifier for a single column of data. If you omit this, the double quotation mark " character is used.

Type: String

Length Constraints: Fixed length of 1.

Required: No

**source**

The path to the field in the log event that has the comma separated values to be parsed. If you omit this value, the whole log message is processed.

Type: String

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

Required: No

## See Also

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

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

# DataSource

Represents a data source that categorizes logs by originating service and log type, providing service-based organization complementing traditional log groups.

## Contents

**name**

The name of the data source.

Type: String

Required: Yes

**type**

The type of the data source.

Type: String

Required: No

## See Also

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

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

# DataSourceFilter

Filter criteria for data sources, used to specify which data sources to include in operations based on name and type.

## Contents

**name**

The name pattern to filter data sources by.

Type: String

Required: Yes

**type**

The type pattern to filter data sources by.

Type: String

Required: No

## See Also

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

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

# DateTimeConverter

This processor converts a datetime string into a format that you specify.

For more information about this processor including examples, see datetimeConverter in the *CloudWatch Logs User Guide*.

## Contents

**matchPatterns**

A list of patterns to match against the `source` field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1.

Required: Yes

**source**

The key to apply the date conversion to.

Type: String

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

Required: Yes

**target**

The JSON field to store the result in.

Type: String

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

Required: Yes

**locale**

The locale of the source field. If you omit this, the default of `locale.ROOT` is used.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**sourceTimezone**

The time zone of the source field. If you omit this, the default used is the UTC zone.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**targetFormat**

The datetime format to use for the converted data in the target field.

If you omit this, the default of `yyyy-MM-dd'T'HH:mm:ss.SSS'Z` is used.

Type: String

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

Required: No

**targetTimezone**

The time zone of the target field. If you omit this, the default used is the UTC zone.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

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

- AWS SDK for C++

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

# DeleteKeys

This processor deletes entries from a log event. These entries are key-value pairs.

For more information about this processor including examples, see deleteKeys in the *CloudWatch Logs User Guide*.

## Contents

**withKeys**

The list of keys to delete.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

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

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

# Delivery

This structure contains information about one *delivery* in your account.

A delivery is a connection between a logical *delivery source* and a logical *delivery destination*.

For more information, see CreateDelivery.

To update an existing delivery configuration, use UpdateDeliveryConfiguration.

## Contents

**arn**

The Amazon Resource Name (ARN) that uniquely identifies this delivery.

Type: String

Required: No

**deliveryDestinationArn**

The ARN of the delivery destination that is associated with this delivery.

Type: String

Required: No

**deliveryDestinationType**

Displays whether the delivery destination associated with this delivery is CloudWatch Logs, Amazon S3, Firehose, or X-Ray.

Type: String

Valid Values: `S3 | CWL | FH | XRAY`

Required: No

**deliverySourceName**

The name of the delivery source that is associated with this delivery.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: No

**fieldDelimiter**

The field delimiter that is used between record fields when the final output format of a delivery is in `Plain`, `W3C`, or `Raw` format.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 5.

Required: No

**id**

The unique ID that identifies this delivery in your account.

Type: String

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

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

Required: No

**recordFields**

The record fields used in this delivery.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 128 items.

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

Required: No

**s3DeliveryConfiguration**

This structure contains delivery configurations that apply only when the delivery destination resource is an S3 bucket.

Type: S3DeliveryConfiguration object

Required: No

**tags**

The tags that have been assigned to this delivery.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## See Also

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

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

# DeliveryDestination

This structure contains information about one *delivery destination* in your account. A delivery destination is an AWS resource that represents an AWS service that logs can be sent to. CloudWatch Logs, Amazon S3, Firehose, and X-Ray are supported as delivery destinations.

To configure logs delivery between a supported AWS service and a destination, you must do the following:

- Create a delivery source, which is a logical object that represents the resource that is actually sending the logs. For more information, see PutDeliverySource.
- Create a *delivery destination*, which is a logical object that represents the actual delivery destination.
- If you are delivering logs cross-account, you must use PutDeliveryDestinationPolicy in the destination account to assign an IAM policy to the destination. This policy allows delivery to that destination.
- Create a *delivery* by pairing exactly one delivery source and one delivery destination. For more information, see CreateDelivery.

You can configure a single delivery source to send logs to multiple destinations by creating multiple deliveries. You can also create multiple deliveries to configure multiple delivery sources to send logs to the same delivery destination.

## Contents

**arn**

The Amazon Resource Name (ARN) that uniquely identifies this delivery destination.

Type: String

Required: No

**deliveryDestinationConfiguration**

A structure that contains the ARN of the AWS resource that will receive the logs.

Type: DeliveryDestinationConfiguration object

Required: No

**deliveryDestinationType**

Displays whether this delivery destination is CloudWatch Logs, Amazon S3, Firehose, or X-Ray.

Type: String

Valid Values: `S3 | CWL | FH | XRAY`

Required: No

**name**

The name of this delivery destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: No

**outputFormat**

The format of the logs that are sent to this delivery destination.

Type: String

Valid Values: `json | plain | w3c | raw | parquet`

Required: No

**tags**

The tags that have been assigned to this delivery destination.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## See Also

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

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

# DeliveryDestinationConfiguration

A structure that contains information about one logs delivery destination.

## Contents

**destinationResourceArn**

The ARN of the AWS destination that this delivery destination represents. That AWS destination can be a log group in CloudWatch Logs, an Amazon S3 bucket, or a delivery stream in Firehose.

Type: String

Required: Yes

## See Also

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

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

# DeliverySource

This structure contains information about one *delivery source* in your account. A delivery source is an AWS resource that sends logs to an AWS destination. The destination can be CloudWatch Logs, Amazon S3, or Firehose.

Only some AWS services support being configured as a delivery source. These services are listed as **Supported [V2 Permissions]** in the table at Enabling logging from AWS services.

To configure logs delivery between a supported AWS service and a destination, you must do the following:

- Create a delivery source, which is a logical object that represents the resource that is actually sending the logs. For more information, see PutDeliverySource.
- Create a *delivery destination*, which is a logical object that represents the actual delivery destination. For more information, see PutDeliveryDestination.
- If you are delivering logs cross-account, you must use PutDeliveryDestinationPolicy in the destination account to assign an IAM policy to the destination. This policy allows delivery to that destination.
- Create a *delivery* by pairing exactly one delivery source and one delivery destination. For more information, see CreateDelivery.

You can configure a single delivery source to send logs to multiple destinations by creating multiple deliveries. You can also create multiple deliveries to configure multiple delivery sources to send logs to the same delivery destination.

## Contents

**arn**

The Amazon Resource Name (ARN) that uniquely identifies this delivery source.

Type: String

Required: No

**deliverySourceConfiguration**

The map of key-value pairs that configure the delivery source.

Type: String to string map

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

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

Required: No

**logType**

The type of log that the source is sending. For valid values for this parameter, see the documentation for the source service.

Type: String

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

Pattern: `[\w]*`

Required: No

**name**

The unique name of the delivery source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `[\w-]*`

Required: No

**resourceArns**

This array contains the ARN of the AWS resource that sends logs and is represented by this delivery source. Currently, only one ARN can be in the array.

Type: Array of strings

Required: No

**service**

The AWS service that is sending logs.

Type: String

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

Pattern: `[\w_-]*`

Required: No

**status**

The status of the delivery source. A delivery source can have the status `ACTIVE` or `INACTIVE`. Note: This value is defined for selective log types.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Required: No

**statusReason**

The reason for the status of the delivery source. A status reason of `RESOURCE_DELETED` indicates that the resource associated with the delivery source has been deleted. Note: This value is defined for selective log types.

Type: String

Valid Values: `RESOURCE_DELETED`

Required: No

**tags**

The tags that have been assigned to this delivery source.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

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

Required: No

## See Also

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

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

# DeliverySourceConfigurationSchema

A structure that describes a single configuration for a log type, including its name, value type, default value, and the range of supported values.

## Contents

**defaultValue**

The default value of the configuration that is used when a value is not specified in a PutDeliverySource request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

**keyName**

The name of the configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

**valueType**

The data type of the configuration value. Valid values are `string`, `boolean`, `int`, `double`, and `long`.

Type: String

Valid Values: `string | boolean | int | double | long`

Required: Yes

**maxValue**

The maximum numeric value allowed for the configuration. This applies only when the `valueType` is a numeric type.

Type: Double

Required: No

**minValue**

The minimum numeric value allowed for the configuration. This applies only when the `valueType` is a numeric type.

Type: Double

Required: No

**supportedValues**

The list of allowed values for the configuration. Empty for free-form configuration.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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 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 Java V2
- AWS SDK for Ruby V3

# DestinationConfiguration

Configuration for where to deliver scheduled query results. Specifies the destination type and associated settings for result delivery.

## Contents

**lookupTableConfiguration**

Configuration for delivering query results to a lookup table. The query results automatically populate or refresh the specified lookup table on each scheduled execution.

Type: LookupTableConfiguration object

Required: No

**s3Configuration**

Configuration for delivering query results to Amazon S3.

Type: S3Configuration object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Entity

The entity associated with the log events in a `PutLogEvents` call.

## Contents

**attributes**

Additional attributes of the entity that are not used to specify the identity of the entity. A list of key-value pairs.

For details about how to use the attributes, see How to add related information to telemetry in the *CloudWatch User Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 10 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Value Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

**keyAttributes**

The attributes of the entity which identify the specific entity, as a list of key-value pairs. Entities with the same `keyAttributes` are considered to be the same entity.

There are five allowed attributes (key names): `Type`, `ResourceType`, `Identifier` `Name`, and `Environment`.

For details about how to use the key attributes, see How to add related information to telemetry in the *CloudWatch User Guide*.

Type: String to string map

Map Entries: Minimum number of 2 items. Maximum number of 4 items.

Key Length Constraints: Minimum length of 1. Maximum length of 32.

Value Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ExportTask

Represents an export task.

## Contents

**destination**

The name of the 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 information about the export task.

Type: ExportTaskExecutionInfo object

Required: No

**from**

The start time, expressed as the number of milliseconds after `Jan 1, 1970 00:00:00 UTC`. Events with a timestamp 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-Za-z0-9]+`

Required: No

**status**

The status of the export task.

Type: ExportTaskStatus 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 timestamp 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 Java V2
- AWS SDK for Ruby V3

# 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 Java V2
- AWS SDK for Ruby V3

# 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 Java V2
- AWS SDK for Ruby V3

# FieldIndex

This structure describes one log event field that is used as an index in at least one index policy in this account.

## Contents

**fieldIndexName**

The string that this field index matches.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**firstEventTime**

The time and date of the earliest log event that matches this field index, after the index policy that contains it was created.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**indexCategory**

The category of the field index:

- `DEFAULT`: Fields that CloudWatch Logs indexes by default. Examples include `@logStream` and `@data_format`.
- `CUSTOM`: Fields that you added manually to the field index policy. CloudWatch Logs always indexes these fields. These fields count toward the quota of 20 fields for each log group.
- `AUTO`: Fields that CloudWatch Logs indexes automatically based on your query patterns and usage. These fields do not count toward the field index quota. CloudWatch Logs might update these fields based on changes in your query patterns. To keep a field indexed permanently, add it to an account-level or log-group level field index policy.

- `INACTIVE`: Fields that CloudWatch Logs indexed before but does not index now. This happens if you remove a field from the field index policy or if CloudWatch Logs automatically selects a different field based on your queries.

For more information about automatically indexed fields, see Automatically indexed fields.

Type: String

Valid Values: `DEFAULT | CUSTOM | AUTO | INACTIVE`

Required: No

**lastEventTime**

The time and date of the most recent log event that matches this field index.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**lastScanTime**

The most recent time that CloudWatch Logs scanned ingested log events to search for this field index to improve the speed of future CloudWatch Logs Insights queries that search for this field index.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupIdentifier**

If this field index appears in an index policy that applies only to a single log group, the ARN of that log group is displayed here.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\w#+=/:,.@-]*`

Required: No

**type**

The type of index. Specify `FACET` for facet-based indexing or `FIELD_INDEX` for field-based indexing. This determines how the field is indexed and can be queried.

Type: String

Valid Values: `FACET | FIELD_INDEX`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# FieldsData

A structure containing the extracted fields from a log event. These fields are extracted based on the log format and can be used for structured querying and analysis.

## Contents

**data**

The actual log data content returned in the streaming response. This contains the fields and values of the log event in a structured format that can be parsed and processed by the client.

Type: Base64-encoded binary data object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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 to which this event belongs.

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 Java V2
- AWS SDK for Ruby V3

# GetLogObjectResponseStream

A stream of structured log data returned by the GetLogObject operation. This stream contains log events with their associated metadata and extracted fields.

## Contents

**fields**

A structure containing the extracted fields from a log event. These fields are extracted based on the log format and can be used for structured querying and analysis.

Type: FieldsData object

Required: No

**InternalStreamingException**

An internal error occurred during the streaming of log data. This exception is thrown when there's an issue with the internal streaming mechanism used by the GetLogObject operation.

Type: Exception

HTTP Status Code:

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Grok

This processor uses pattern matching to parse and structure unstructured data. This processor can also extract fields from log messages.

For more information about this processor including examples, see grok in the *CloudWatch Logs User Guide*.

## Contents

**match**

The grok pattern to match against the log event. For a list of supported grok patterns, see Supported grok patterns.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: Yes

**source**

The path to the field in the log event that you want to parse. If you omit this value, the whole log message is parsed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# GroupingIdentifier

A key-value pair that identifies how log groups are grouped in aggregate summaries.

## Contents

**key**

The key that identifies the grouping characteristic. The format of the key uses dot notation. Examples are, `dataSource.Name`, `dataSource.Type`, and `dataSource.Format`.

Type: String

Required: No

**value**

The value associated with the grouping characteristic. Examples are `amazon_vpc`, `flow`, and `OCSF`.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Import

An import job to move data from CloudTrail Event Data Store to CloudWatch.

## Contents

**creationTime**

The timestamp when the import task was created, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**errorMessage**

Error message related to any failed imports

Type: String

Required: No

**importDestinationArn**

The ARN of the managed CloudWatch Logs log group where the events are being imported to.

Type: String

Required: No

**importFilter**

The filter criteria used for this import task.

Type: ImportFilter object

Required: No

**importId**

The unique identifier of the import task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\-a-zA-Z0-9]+`

Required: No

**importSourceArn**

The ARN of the CloudTrail Lake Event Data Store being imported from.

Type: String

Required: No

**importStatistics**

Statistics about the import progress

Type: ImportStatistics object

Required: No

**importStatus**

The current status of the import task. Valid values are IN_PROGRESS, CANCELLED, COMPLETED and FAILED.

Type: String

Valid Values: `IN_PROGRESS | CANCELLED | COMPLETED | FAILED`

Required: No

**lastUpdatedTime**

The timestamp when the import task 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

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ImportBatch

A collection of events being imported to CloudWatch

## Contents

**batchId**

The unique identifier of the import batch.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

**status**

The current status of the import batch. Valid values are IN_PROGRESS, CANCELLED, COMPLETED and FAILED.

Type: String

Valid Values: `IN_PROGRESS | CANCELLED | COMPLETED | FAILED`

Required: Yes

**errorMessage**

The error message if the batch failed to import. Only present when status is FAILED.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# ImportFilter

The filter criteria used for import tasks

## Contents

**endEventTime**

The end of the time range for events to import, expressed as the number of milliseconds after Jan 1, 1970 00:00:00 UTC.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**startEventTime**

The start of the time range for events to import, 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 Java V2
- AWS SDK for Ruby V3

# ImportStatistics

Statistics about the import progress

## Contents

### bytesImported

The total number of bytes that have been imported to the managed log group.

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 Java V2
- AWS SDK for Ruby V3

# IndexPolicy

This structure contains information about one field index policy in this account.

## Contents

**lastUpdateTime**

The date and time that this index policy was most recently updated.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupIdentifier**

The ARN of the log group that this index policy applies to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\w#+=/:,.@-]*`

Required: No

**policyDocument**

The policy document for this index policy, in JSON format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 51200.

Required: No

**policyName**

The name of this policy. Responses about log group-level field index policies don't have this field, because those policies don't have names.

Type: String

Required: No

**source**

This field indicates whether this is an account-level index policy or an index policy that applies only to a single log group.

Type: String

Valid Values: `ACCOUNT | LOG_GROUP`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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. Each log event can be no larger than 1 MB.

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 Java V2
- AWS SDK for Ruby V3

# IntegrationDetails

This structure contains information about the integration configuration. For an integration with OpenSearch Service, this includes information about OpenSearch Service resources such as the collection, the workspace, and policies.

This structure is returned by a GetIntegration operation.

## Contents

**Important**

This data type is a UNION, so only one of the following members can be specified when used or returned.

**openSearchIntegrationDetails**

This structure contains complete information about one integration between CloudWatch Logs and OpenSearch Service.

Type: OpenSearchIntegrationDetails object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# IntegrationSummary

This structure contains information about one CloudWatch Logs integration. This structure is returned by a ListIntegrations operation.

## Contents

**integrationName**

The name of this integration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**integrationStatus**

The current status of this integration.

Type: String

Valid Values: `PROVISIONING | ACTIVE | FAILED`

Required: No

**integrationType**

The type of integration. Integrations with OpenSearch Service have the type `OPENSEARCH`.

Type: String

Valid Values: `OPENSEARCH`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ListToMap

This processor takes a list of objects that contain key fields, and converts them into a map of target keys.

For more information about this processor including examples, see listToMap in the *CloudWatch Logs User Guide*.

## Contents

**key**

The key of the field to be extracted as keys in the generated map

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**source**

The key in the log event that has a list of objects that will be converted to a map.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**flatten**

A Boolean value to indicate whether the list will be flattened into single items. Specify `true` to flatten the list. The default is `false`

Type: Boolean

Required: No

**flattenedElement**

If you set `flatten` to `true`, use `flattenedElement` to specify which element, `first` or `last`, to keep.

You must specify this parameter if `flatten` is `true`

Type: String

Valid Values: `first | last`

Required: No

**target**

The key of the field that will hold the generated map

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**valueKey**

If this is specified, the values that you specify in this parameter will be extracted from the `source` objects and put into the values of the generated map. Otherwise, original objects in the source list will be put into the values of the generated map.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LiveTailSessionLogEvent

This object contains the information for one log event returned in a Live Tail stream.

## Contents

**ingestionTime**

The timestamp specifying when this log event was ingested into the log group.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupIdentifier**

The name or ARN of the log group that ingested this log event.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\w#+=/:,.@-]*`

Required: No

**logStreamName**

The name of the log stream that ingested this log event.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[^:*]*`

Required: No

**message**

The log event message text.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**timestamp**

The timestamp specifying when this log event was created.

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 Java V2
- AWS SDK for Ruby V3

# LiveTailSessionMetadata

This object contains the metadata for one `LiveTailSessionUpdate` structure. It indicates whether that update includes only a sample of 500 log events out of a larger number of ingested log events, or if it contains all of the matching log events ingested during that second of time.

## Contents

**sampled**

If this is `true`, then more than 500 log events matched the request for this update, and the `sessionResults` includes a sample of 500 of those events.

If this is `false`, then 500 or fewer log events matched the request for this update, so no sampling was necessary. In this case, the `sessionResults` array includes all log events that matched your request during this time.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LiveTailSessionStart

This object contains information about this Live Tail session, including the log groups included and the log stream filters, if any.

## Contents

**logEventFilterPattern**

An optional pattern to filter the results to include only log events that match the pattern. For example, a filter pattern of `error 404` displays only log events that include both `error` and `404`.

For more information about filter pattern syntax, see Filter and Pattern Syntax.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**logGroupIdentifiers**

An array of the names and ARNs of the log groups included in this Live Tail session.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\w#+=/:,.@-]*`

Required: No

**logStreamNamePrefixes**

If your StartLiveTail operation request included a `logStreamNamePrefixes` parameter that filtered the session to only include log streams that have names that start with certain prefixes, these prefixes are listed here.

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

**logStreamNames**

If your StartLiveTail operation request included a `logStreamNames` parameter that filtered the session to only include certain log streams, these streams are listed here.

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

**requestId**

The unique ID generated by CloudWatch Logs to identify this Live Tail session request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

**sessionId**

The unique ID generated by CloudWatch Logs to identify this Live Tail session.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LiveTailSessionUpdate

This object contains the log events and metadata for a Live Tail session.

## Contents

**sessionMetadata**

This object contains the session metadata for a Live Tail session.

Type: LiveTailSessionMetadata object

Required: No

**sessionResults**

An array, where each member of the array includes the information for one log event in the Live Tail session.

A `sessionResults` array can include as many as 500 log events. If the number of log events matching the request exceeds 500 per second, the log events are sampled down to 500 log events to be included in each `sessionUpdate` structure.

Type: Array of LiveTailSessionLogEvent objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogEvent

This structure contains the information for one sample log event that is associated with an anomaly found by a log anomaly detector.

## Contents

**message**

The message content of the log event.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**timestamp**

The time stamp of the log event.

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 Java V2
- AWS SDK for Ruby V3

# LogFieldsListItem

Represents a log field with its name and data type information for a specific data source.

## Contents

**logFieldName**

The name of the log field.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**logFieldType**

The data type information for the log field.

Type: LogFieldType object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogFieldType

Defines the data type structure for a log field, including the type, element information, and nested fields for complex types.

## Contents

**element**

For array or collection types, specifies the element type information.

Type: LogFieldType object

Required: No

**fields**

For complex types, contains the nested field definitions.

Type: Array of LogFieldsListItem objects

Required: No

**type**

The data type of the log field.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogGroup

Represents a log group.

## Contents

**arn**

The Amazon Resource Name (ARN) of the log group. This version of the ARN includes a trailing `:*` after the log group name.

Use this version to refer to the ARN in IAM policies when specifying permissions for most API actions. The exception is when specifying permissions for TagResource, UntagResource, and ListTagsForResource. The permissions for those three actions require the ARN version that doesn't include a trailing `:*`.

Type: String

Required: No

**bearerTokenAuthenticationEnabled**

Indicates whether bearer token authentication is enabled for this log group. When enabled, bearer token authentication is allowed on operations until it is explicitly disabled.

Type: Boolean

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

**dataProtectionStatus**

Displays whether this log group has a protection policy, or whether it had one in the past. For more information, see PutDataProtectionPolicy.

Type: String

Valid Values: `ACTIVATED | DELETED | ARCHIVED | DISABLED`

Required: No

**deletionProtectionEnabled**

Indicates whether deletion protection is enabled for this log group. When enabled, deletion protection blocks all deletion operations until it is explicitly disabled.

Type: Boolean

Required: No

**inheritedProperties**

Displays all the properties that this log group has inherited from account-level settings.

Type: Array of strings

Valid Values: `ACCOUNT_DATA_PROTECTION`

Required: No

**kmsKeyId**

The Amazon Resource Name (ARN) of the AWS KMS key to use when encrypting log data.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**logGroupArn**

The Amazon Resource Name (ARN) of the log group. This version of the ARN doesn't include a trailing `:*` after the log group name.

Use this version to refer to the ARN in the following situations:

- In the `logGroupIdentifier` input field in many CloudWatch Logs APIs.
- In the `resourceArn` field in tagging APIs
- In IAM policies, when specifying permissions for TagResource, UntagResource, and ListTagsForResource.

Type: String

Required: No

**logGroupClass**

This specifies the log group class for this log group. There are three classes:

- The `Standard` log class supports all CloudWatch Logs features.
- The `Infrequent Access` log class supports a subset of CloudWatch Logs features and incurs lower costs.
- Use the `Delivery` log class only for delivering AWS Lambda logs to store in Amazon S3 or Amazon Data Firehose. Log events in log groups in the Delivery class are kept in CloudWatch Logs for only one day. This log class doesn't offer rich CloudWatch Logs capabilities such as CloudWatch Logs Insights queries.

For details about the features supported by the Standard and Infrequent Access classes, see Log classes

Type: String

Valid Values: `STANDARD | INFREQUENT_ACCESS | DELIVERY`

Required: No

**logGroupName**

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_/#A-Za-z0-9]+`

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, 1096, 1827, 2192, 2557, 2922, 3288, and 3653.

To set a log group so that its log events do not expire, use DeleteRetentionPolicy.

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 Java V2
- AWS SDK for Ruby V3

# LogGroupField

The fields contained in log events found by a `GetLogGroupFields` operation, along with the percentage of queried log events in which each field appears.

## Contents

**name**

The name of a log field.

Type: String

Required: No

**percent**

The percentage of log events queried that contained the field.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LogGroupSummary

This structure contains information about one log group in your account.

## Contents

**logGroupArn**

The Amazon Resource Name (ARN) of the log group.

Type: String

Required: No

**logGroupClass**

The log group class for this log group. For details about the features supported by each log group class, see Log classes

Type: String

Valid Values: `STANDARD | INFREQUENT_ACCESS | DELIVERY`

Required: No

**logGroupName**

The name of the log group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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. The `lastEventTime` value updates on an eventual consistency basis. It typically updates in less than an hour from ingestion, but in rare situations might take longer.

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` The `lastIngestionTime` value updates on an eventual consistency basis. It typically updates in less than an hour after ingestion, but in rare situations might take longer.

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**

*This member has been deprecated.*

The number of bytes stored.

**Important:** As of June 17, 2019, this parameter is no longer supported for log streams, and is always reported as zero. This change applies only to log streams. The `storedBytes` parameter for log groups is not affected.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**uploadSequenceToken**

The sequence token.

> **Important**
>
> The sequence token is now ignored in `PutLogEvents` actions. `PutLogEvents` actions are always accepted regardless of receiving an invalid sequence token. You don't need to obtain `uploadSequenceToken` to use a `PutLogEvents` action.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LookupTable

Contains metadata about a lookup table returned by `DescribeLookupTables`.

## Contents

**description**

The description of the lookup table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**kmsKeyId**

The ARN of the AWS KMS key used to encrypt the lookup table data, if applicable.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**lastUpdatedTime**

The time when the lookup table 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

**lookupTableArn**

The ARN of the lookup table.

Type: String

Required: No

**lookupTableName**

The name of the lookup table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9_]+$`

Required: No

**recordsCount**

The number of data rows in the lookup table, excluding the header row.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**sizeBytes**

The size of the lookup table in bytes.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**tableFields**

The column headers from the first row of the CSV file.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LookupTableConfiguration

Configuration for a lookup table destination. Use it to automatically refresh a lookup table with query results on a schedule.

## Contents

**roleArn**

The ARN of the IAM role that grants permissions to create or update the lookup table with query results.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**tableName**

The name of the lookup table to create or update with query results. The name can contain only alphanumeric characters and underscores.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9_]+$`

Required: Yes

**description**

A description of the lookup table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

**kmsKeyId**

The ARN of the AWS KMS key to use to encrypt the lookup table data. If you don't specify a key, the data is encrypted with an AWS-owned key.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**tags**

Key-value pairs to associate with the lookup table for resource management and cost allocation. The service applies tags only during initial table creation.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]+)$`

Value Length Constraints: Maximum length of 256.

Value Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# LowerCaseString

This processor converts a string to lowercase.

For more information about this processor including examples, see lowerCaseString in the *CloudWatch Logs User Guide*.

## Contents

**withKeys**

The array caontaining the keys of the fields to convert to lowercase.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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

**applyOnTransformedLogs**

This parameter is valid only for log groups that have an active log transformer. For more information about log transformers, see PutTransformer.

If this value is `true`, the metric filter is applied on the transformed version of the log events instead of the original ingested log events.

Type: Boolean

Required: No

**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

**emitSystemFieldDimensions**

The list of system fields that are emitted as additional dimensions in the generated metrics. Returns the `emitSystemFieldDimensions` value if it was specified when the metric filter was created.

Type: Array of strings

Required: No

**fieldSelectionCriteria**

The filter expression that specifies which log events are processed by this metric filter based on system fields. Returns the `fieldSelectionCriteria` value if it was specified when the metric filter was created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2000.

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 can contain timestamps, 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-Za-z0-9]+`

Required: No

**metricTransformations**

The metric transformations.

Type: Array of MetricTransformation 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 Java V2
- AWS SDK for Ruby V3

# 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 Java V2
- AWS SDK for Ruby V3

# MetricTransformation

Indicates how to transform ingested log events to metric data in a CloudWatch metric.

## Contents

**metricName**

The name of the CloudWatch metric.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[^:*$]*`

Required: Yes

**metricNamespace**

A custom namespace to contain your metric in CloudWatch. Use namespaces to group together metrics that are similar. For more information, see Namespaces.

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

**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

**dimensions**

The fields to use as dimensions for the metric. One metric filter can include as many as three dimensions.

> **Important**
>
> Metrics extracted from log events are charged as custom metrics. To prevent unexpected high charges, do not specify high-cardinality fields such as `IPAddress` or `requestID` as dimensions. Each different value found for a dimension is treated as a separate metric and accrues charges as a separate custom metric.
> CloudWatch Logs disables a metric filter if it generates 1000 different name/value pairs for your specified dimensions within a certain amount of time. This helps to prevent accidental high charges.
> You can also set up a billing alarm to alert you if your charges are higher than expected. For more information, see Creating a Billing Alarm to Monitor Your Estimated AWS Charges.

Type: String to string map

Key Length Constraints: Maximum length of 255.

Value Length Constraints: Maximum length of 255.

Required: No

**unit**

The unit to assign to the metric. If you omit this, the unit is set as None.

Type: String

Valid Values: `Seconds | Microseconds | Milliseconds | Bytes | Kilobytes | Megabytes | Gigabytes | Terabytes | Bits | Kilobits | Megabits | Gigabits | Terabits | Percent | Count | Bytes/Second | Kilobytes/Second | Megabytes/Second | Gigabytes/Second | Terabytes/Second | Bits/Second |`

`Kilobits/Second | Megabits/Second | Gigabits/Second | Terabits/Second | Count/Second | None`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# MoveKeyEntry

This object defines one key that will be moved with the moveKey processor.

## Contents

**source**

The key to move.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**target**

The key to move to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**overwriteIfExists**

Specifies whether to overwrite the value if the destination key already exists. If you omit this, the default is `false`.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# MoveKeys

This processor moves a key from one field to another. The original key is deleted.

For more information about this processor including examples, see moveKeys in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of objects, where each object contains the information about one key to move.

Type: Array of MoveKeyEntry objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchApplication

This structure contains information about the OpenSearch Service application used for this integration. An OpenSearch Service application is the web application created by the integration with CloudWatch Logs. It hosts the vended logs dashboards.

## Contents

**applicationArn**

The Amazon Resource Name (ARN) of the application.

Type: String

Required: No

**applicationEndpoint**

The endpoint of the application.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://[\.\-_/#:A-Za-z0-9]+\.com$`

Required: No

**applicationId**

The ID of the application.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchCollection

This structure contains information about the OpenSearch Service collection used for this integration. An OpenSearch Service collection is a logical grouping of one or more indexes that represent an analytics workload. For more information, see Creating and managing OpenSearch Service Serverless collections.

## Contents

**collectionArn**

The ARN of the collection.

Type: String

Required: No

**collectionEndpoint**

The endpoint of the collection.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://[\.\-_/#:A-Za-z0-9]+\.com$`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchDataAccessPolicy

This structure contains information about the OpenSearch Service data access policy used for this integration. The access policy defines the access controls for the collection. This data access policy was automatically created as part of the integration setup. For more information about OpenSearch Service data access policies, see Data access control for Amazon OpenSearch Serverless in the OpenSearch Service Developer Guide.

## Contents

**policyName**

The name of the data access policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchDataSource

This structure contains information about the OpenSearch Service data source used for this integration. This data source was created as part of the integration setup. An OpenSearch Service data source defines the source and destination for OpenSearch Service queries. It includes the role required to execute queries and write to collections.

For more information about OpenSearch Service data sources , see Creating OpenSearch Service data source integrations with Amazon S3.

## Contents

**dataSourceName**

The name of the OpenSearch Service data source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchEncryptionPolicy

This structure contains information about the OpenSearch Service encryption policy used for this integration. The encryption policy was created automatically when you created the integration. For more information, see Encryption policies in the OpenSearch Service Developer Guide.

## Contents

**policyName**

The name of the encryption policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchIntegrationDetails

This structure contains complete information about one CloudWatch Logs integration. This structure is returned by a GetIntegration operation.

## Contents

**accessPolicy**

This structure contains information about the OpenSearch Service data access policy used for this integration. The access policy defines the access controls for the collection. This data access policy was automatically created as part of the integration setup. For more information about OpenSearch Service data access policies, see Data access control for Amazon OpenSearch Serverless in the OpenSearch Service Developer Guide.

Type: OpenSearchDataAccessPolicy object

Required: No

**application**

This structure contains information about the OpenSearch Service application used for this integration. An OpenSearch Service application is the web application that was created by the integration with CloudWatch Logs. It hosts the vended logs dashboards.

Type: OpenSearchApplication object

Required: No

**collection**

This structure contains information about the OpenSearch Service collection used for this integration. This collection was created as part of the integration setup. An OpenSearch Service collection is a logical grouping of one or more indexes that represent an analytics workload. For more information, see Creating and managing OpenSearch Service Serverless collections.

Type: OpenSearchCollection object

Required: No

**dataSource**

This structure contains information about the OpenSearch Service data source used for this integration. This data source was created as part of the integration setup. An OpenSearch

Service data source defines the source and destination for OpenSearch Service queries. It includes the role required to execute queries and write to collections.

For more information about OpenSearch Service data sources , see Creating OpenSearch Service data source integrations with Amazon S3.

Type: OpenSearchDataSource object

Required: No

**encryptionPolicy**

This structure contains information about the OpenSearch Service encryption policy used for this integration. The encryption policy was created automatically when you created the integration. For more information, see Encryption policies in the OpenSearch Service Developer Guide.

Type: OpenSearchEncryptionPolicy object

Required: No

**lifecyclePolicy**

This structure contains information about the OpenSearch Service data lifecycle policy used for this integration. The lifecycle policy determines the lifespan of the data in the collection. It was automatically created as part of the integration setup.

For more information, see Using data lifecycle policies with OpenSearch Service Serverless in the OpenSearch Service Developer Guide.

Type: OpenSearchLifecyclePolicy object

Required: No

**networkPolicy**

This structure contains information about the OpenSearch Service network policy used for this integration. The network policy assigns network access settings to collections. For more information, see Network policies in the OpenSearch Service Developer Guide.

Type: OpenSearchNetworkPolicy object

Required: No

**workspace**

This structure contains information about the OpenSearch Service workspace used for this integration. An OpenSearch Service workspace is the collection of dashboards along with other OpenSearch Service tools. This workspace was created automatically as part of the integration setup. For more information, see Centralized OpenSearch user interface (Dashboards) with OpenSearch Service.

Type: OpenSearchWorkspace object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchLifecyclePolicy

This structure contains information about the OpenSearch Service data lifecycle policy used for this integration. The lifecycle policy determines the lifespan of the data in the collection. It was automatically created as part of the integration setup.

For more information, see Using data lifecycle policies with OpenSearch Service Serverless in the OpenSearch Service Developer Guide.

## Contents

**policyName**

The name of the lifecycle policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchNetworkPolicy

This structure contains information about the OpenSearch Service network policy used for this integration. The network policy assigns network access settings to collections. For more information, see Network policies in the OpenSearch Service Developer Guide.

## Contents

**policyName**

The name of the network policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**status**

This structure contains information about the status of this OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchResourceConfig

This structure contains configuration details about an integration between CloudWatch Logs and OpenSearch Service.

## Contents

**dashboardViewerPrincipals**

Specify the ARNs of IAM roles and IAM users who you want to grant permission to for viewing the dashboards.

> **Important**
>
> In addition to specifying these users here, you must also grant them the **CloudWatchOpenSearchDashboardAccess** IAM policy. For more information, see IAM policies for users.

Type: Array of strings

Required: Yes

**dataSourceRoleArn**

Specify the ARN of an IAM role that CloudWatch Logs will use to create the integration. This role must have the permissions necessary to access the OpenSearch Service collection to be able to create the dashboards. For more information about the permissions needed, see Permissions that the integration needs in the CloudWatch Logs User Guide.

Type: String

Required: Yes

**retentionDays**

Specify how many days that you want the data derived by OpenSearch Service to be retained in the index that the dashboard refers to. This also sets the maximum time period that you can choose when viewing data in the dashboard. Choosing a longer time frame will incur additional costs.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 30.

Required: Yes

**applicationArn**

If you want to use an existing OpenSearch Service application for your integration with OpenSearch Service, specify it here. If you omit this, a new application will be created.

Type: String

Required: No

**kmsKeyArn**

To have the vended dashboard data encrypted with AWS KMS instead of the CloudWatch Logs default encryption method, specify the ARN of the AWS KMS key that you want to use.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchResourceStatus

This structure contains information about the status of an OpenSearch Service resource.

## Contents

**status**

The current status of this resource.

Type: String

Valid Values: `ACTIVE | NOT_FOUND | ERROR`

Required: No

**statusMessage**

A message with additional information about the status of this resource.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# OpenSearchWorkspace

This structure contains information about the OpenSearch Service workspace used for this integration. An OpenSearch Service workspace is the collection of dashboards along with other OpenSearch Service tools. This workspace was created automatically as part of the integration setup. For more information, see Centralized OpenSearch user interface (Dashboards) with OpenSearch Service.

## Contents

**status**

This structure contains information about the status of an OpenSearch Service resource.

Type: OpenSearchResourceStatus object

Required: No

**workspaceId**

The ID of this workspace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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 Java V2
- AWS SDK for Ruby V3

# ParseCloudfront

This processor parses CloudFront vended logs, extract fields, and convert them into JSON format. Encoded field values are decoded. Values that are integers and doubles are treated as such. For more information about this processor including examples, see parseCloudfront

For more information about CloudFront log format, see Configure and use standard logs (access logs).

If you use this processor, it must be the first processor in your transformer.

## Contents

**source**

Omit this parameter and the whole log message will be processed by this processor. No other value than `@message` is allowed for `source`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ParseJSON

This processor parses log events that are in JSON format. It can extract JSON key-value pairs and place them under a destination that you specify.

Additionally, because you must have at least one parse-type processor in a transformer, you can use `ParseJSON` as that processor for JSON-format logs, so that you can also apply other processors, such as mutate processors, to these logs.

For more information about this processor including examples, see parseJSON in the *CloudWatch Logs User Guide*.

## Contents

**destination**

The location to put the parsed key value pair into. If you omit this parameter, it is placed under the root node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**source**

Path to the field in the log event that will be parsed. Use dot notation to access child fields. For example, `store.book`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ParseKeyValue

This processor parses a specified field in the original log event into key-value pairs.

For more information about this processor including examples, see parseKeyValue in the *CloudWatch Logs User Guide*.

## Contents

**destination**

The destination field to put the extracted key-value pairs into

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**fieldDelimiter**

The field delimiter string that is used between key-value pairs in the original log events. If you omit this, the ampersand & character is used.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**keyPrefix**

If you want to add a prefix to all transformed keys, specify it here.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**keyValueDelimiter**

The delimiter string to use between the key and value in each pair in the transformed log event.

If you omit this, the equal = character is used.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**nonMatchValue**

A value to insert into the value field in the result, when a key-value pair is not successfully split.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

**overwriteIfExists**

Specifies whether to overwrite the value if the destination key already exists. If you omit this, the default is `false`.

Type: Boolean

Required: No

**source**

Path to the field in the log event that will be parsed. Use dot notation to access child fields. For example, `store.book`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# ParsePostgres

Use this processor to parse RDS for PostgreSQL vended logs, extract fields, and and convert them into a JSON format. This processor always processes the entire log event message. For more information about this processor including examples, see parsePostGres.

For more information about RDS for PostgreSQL log format, see RDS for PostgreSQL database log filesTCP flag sequence.

> **Important**
>
> If you use this processor, it must be the first processor in your transformer.

## Contents

**source**

Omit this parameter and the whole log message will be processed by this processor. No other value than `@message` is allowed for `source`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ParseRoute53

Use this processor to parse Route 53 vended logs, extract fields, and and convert them into a JSON format. This processor always processes the entire log event message. For more information about this processor including examples, see parseRoute53.

**Important**

If you use this processor, it must be the first processor in your transformer.

## Contents

**source**

Omit this parameter and the whole log message will be processed by this processor. No other value than `@message` is allowed for `source`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ParseToOCSF

This processor converts logs into Open Cybersecurity Schema Framework (OCSF) events.

For more information about this processor including examples, see parseToOCSF in the *CloudWatch Logs User Guide*.

## Contents

**eventSource**

Specify the service or process that produces the log events that will be converted with this processor.

Type: String

Valid Values: `CloudTrail | Route53Resolver | VPCFlow | EKSAudit | AWSWAF`

Required: Yes

**ocsfVersion**

Specify which version of the OCSF schema to use for the transformed log events.

Type: String

Valid Values: `V1.1 | V1.5`

Required: Yes

**mappingVersion**

The version of the OCSF mapping to use for parsing log data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `^\d+\.\d+(\.\d+)?$`

Required: No

**source**

The path to the field in the log event that you want to parse. If you omit this value, the whole log message is parsed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ParseVPC

Use this processor to parse Amazon VPC vended logs, extract fields, and and convert them into a JSON format. This processor always processes the entire log event message.

This processor doesn't support custom log formats, such as NAT gateway logs. For more information about custom log formats in Amazon VPC, see parseVPC For more information about this processor including examples, see parseVPC.

> **Important**
>
> If you use this processor, it must be the first processor in your transformer.

## Contents

**source**

Omit this parameter and the whole log message will be processed by this processor. No other value than `@message` is allowed for `source`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ParseWAF

Use this processor to parse AWS WAF vended logs, extract fields, and and convert them into a JSON format. This processor always processes the entire log event message. For more information about this processor including examples, see parseWAF.

For more information about AWS WAF log format, see Log examples for web ACL traffic.

> **Important**
>
> If you use this processor, it must be the first processor in your transformer.

## Contents

**source**

Omit this parameter and the whole log message will be processed by this processor. No other value than `@message` is allowed for `source`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# PatternToken

A structure that contains information about one pattern token related to an anomaly.

For more information about patterns and tokens, see CreateLogAnomalyDetector.

## Contents

**dynamicTokenPosition**

For a dynamic token, this indicates where in the pattern that this token appears, related to other dynamic tokens. The dynamic token that appears first has a value of 1, the one that appears second is 2, and so on.

Type: Integer

Required: No

**enumerations**

Contains the values found for a dynamic token, and the number of times each value was found.

Type: String to long map

Key Length Constraints: Minimum length of 1.

Required: No

**inferredTokenName**

A name that CloudWatch Logs assigned to this dynamic token to make the pattern more readable. The string part of the `inferredTokenName` gives you a clearer idea of the content of this token. The number part of the `inferredTokenName` shows where in the pattern this token appears, compared to other dynamic tokens. CloudWatch Logs assigns the string part of the name based on analyzing the content of the log events that contain it.

For example, an inferred token name of `IPAddress-3` means that the token represents an IP address, and this token is the third dynamic token in the pattern.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**isDynamic**

Specifies whether this is a dynamic token.

Type: Boolean

Required: No

**tokenString**

The string represented by this token. If this is a dynamic token, the value will be <*>

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Policy

A structure that contains information about one delivery destination policy.

## Contents

**deliveryDestinationPolicy**

The contents of the delivery destination policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 51200.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Processor

This structure contains the information about one processor in a log transformer.

## Contents

**addKeys**

Use this parameter to include the addKeys processor in your transformer.

Type: AddKeys object

Required: No

**copyValue**

Use this parameter to include the copyValue processor in your transformer.

Type: CopyValue object

Required: No

**csv**

Use this parameter to include the CSV processor in your transformer.

Type: CSV object

Required: No

**dateTimeConverter**

Use this parameter to include the datetimeConverter processor in your transformer.

Type: DateTimeConverter object

Required: No

**deleteKeys**

Use this parameter to include the deleteKeys processor in your transformer.

Type: DeleteKeys object

Required: No

**grok**

Use this parameter to include the grok processor in your transformer.

Type: Grok object

Required: No

**listToMap**

Use this parameter to include the listToMap processor in your transformer.

Type: ListToMap object

Required: No

**lowerCaseString**

Use this parameter to include the lowerCaseString processor in your transformer.

Type: LowerCaseString object

Required: No

**moveKeys**

Use this parameter to include the moveKeys processor in your transformer.

Type: MoveKeys object

Required: No

**parseCloudfront**

Use this parameter to include the parseCloudfront processor in your transformer.

If you use this processor, it must be the first processor in your transformer.

Type: ParseCloudfront object

Required: No

**parseJSON**

Use this parameter to include the parseJSON processor in your transformer.

Type: ParseJSON object

Required: No

**parseKeyValue**

Use this parameter to include the parseKeyValue processor in your transformer.

Type: ParseKeyValue object

Required: No

**parsePostgres**

Use this parameter to include the parsePostGres processor in your transformer.

If you use this processor, it must be the first processor in your transformer.

Type: ParsePostgres object

Required: No

**parseRoute53**

Use this parameter to include the parseRoute53 processor in your transformer.

If you use this processor, it must be the first processor in your transformer.

Type: ParseRoute53 object

Required: No

**parseToOCSF**

Use this parameter to convert logs into Open Cybersecurity Schema (OCSF) format.

Type: ParseToOCSF object

Required: No

**parseVPC**

Use this parameter to include the parseVPC processor in your transformer.

If you use this processor, it must be the first processor in your transformer.

Type: ParseVPC object

Required: No

**parseWAF**

Use this parameter to include the parseWAF processor in your transformer.

If you use this processor, it must be the first processor in your transformer.

Type: ParseWAF object

Required: No

**renameKeys**

Use this parameter to include the renameKeys processor in your transformer.

Type: RenameKeys object

Required: No

**splitString**

Use this parameter to include the splitString processor in your transformer.

Type: SplitString object

Required: No

**substituteString**

Use this parameter to include the substituteString processor in your transformer.

Type: SubstituteString object

Required: No

**trimString**

Use this parameter to include the trimString processor in your transformer.

Type: TrimString object

Required: No

**typeConverter**

Use this parameter to include the typeConverter processor in your transformer.

Type: TypeConverter object

Required: No

**upperCaseString**

Use this parameter to include the upperCaseString processor in your transformer.

Type: UpperCaseString object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# QueryCompileError

Reserved.

## Contents

**location**

Reserved.

Type: QueryCompileErrorLocation object

Required: No

**message**

Reserved.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# QueryCompileErrorLocation

Reserved.

## Contents

**endCharOffset**

Reserved.

Type: Integer

Required: No

**startCharOffset**

Reserved.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# QueryDefinition

This structure contains details about a saved CloudWatch Logs Insights query definition.

## Contents

**lastModified**

The date that the query definition was most recently modified.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupNames**

If this query definition contains a list of log groups that it is limited to, that list appears here.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**name**

The name of the query definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

**parameters**

If this query definition contains a list of query parameters that define placeholder variables for the query string, that list appears here.

Type: Array of QueryParameter objects

Array Members: Maximum number of 20 items.

Required: No

**queryDefinitionId**

The unique ID of the query definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**queryLanguage**

The query language used for this query. For more information about the query languages that CloudWatch Logs supports, see Supported query languages.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: No

**queryString**

The query string to use for this definition. For more information, see CloudWatch Logs Insights Query Syntax.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# QueryInfo

Information about one CloudWatch Logs Insights query that matches the request in a `DescribeQueries` operation.

## Contents

**bytesScanned**

The total number of bytes scanned by the query. This indicates the cost associated with the query.

Type: Double

Required: No

**createTime**

The date and time that this query was created.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupName**

The name of the log group scanned by this query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_/#A-Za-z0-9]+`

Required: No

**queryDuration**

The duration in milliseconds that the query took to execute.

Type: Long

Required: No

**queryId**

The unique ID number of this query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**queryLanguage**

The query language used for this query. For more information about the query languages that CloudWatch Logs supports, see Supported query languages.

Type: String

Valid Values: `CWLI | SQL | PPL`

Required: No

**queryString**

The query string used in this query.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10000.

Required: No

**status**

The status of this query. Possible values are `Cancelled`, `Complete`, `Failed`, `Running`, `Scheduled`, and `Unknown`.

Type: String

Valid Values: `Scheduled | Running | Complete | Failed | Cancelled | Timeout | Unknown`

Required: No

**userIdentity**

The ARN of the user who ran the query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# QueryParameter

This structure defines a query parameter for a saved CloudWatch Logs Insights query definition. Query parameters are supported only for Logs Insights QL queries. They are placeholder variables that you can reference in a query string using the `{{parameterName}}` syntax. Each parameter can include a default value and a description.

## Contents

**name**

The name of the query parameter. A query parameter name must start with a letter or underscore, and contain only letters, digits, and underscores.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z_][a-zA-Z0-9_]*`

Required: Yes

**defaultValue**

The default value to use for this query parameter if no value is supplied at execution time.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**description**

A description of the query parameter that explains its purpose or expected values.

Type: String

Length Constraints: Maximum length of 512.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# QueryStatistics

Contains the number of log events scanned by the query, the number of log events that matched the query criteria, and the total number of bytes in the log events that were scanned.

If the query involved log groups that have field index policies, the estimated number of skipped log events and the total bytes of those skipped log events are included. Using field indexes to skip log events in queries reduces scan volume and improves performance. For more information, see Create field indexes to improve query performance and reduce scan volume.

## Contents

**bytesScanned**

The total number of bytes in the log events scanned during the query.

Type: Double

Required: No

**estimatedBytesSkipped**

An estimate of the number of bytes in the log events that were skipped when processing this query, because the query contained an indexed field. Skipping these entries lowers query costs and improves the query performance time. For more information about field indexes, see PutIndexPolicy.

Type: Double

Required: No

**estimatedRecordsSkipped**

An estimate of the number of log events that were skipped when processing this query, because the query contained an indexed field. Skipping these entries lowers query costs and improves the query performance time. For more information about field indexes, see PutIndexPolicy.

Type: Double

Required: No

**logGroupsScanned**

The number of log groups that were scanned by this query.

Type: Double

Required: No

**recordsMatched**

The number of log events that matched the query string.

Type: Double

Required: No

**recordsScanned**

The total number of log events scanned during the query.

Type: Double

Required: No

**resultCount**

The number of rows in the final query result set. This value represents the total number of output rows across all pages. For queries that include post-aggregation filters (such as `stats count(*) by field | filter count > threshold`), this value might be less than `recordsMatched`. It reflects only the rows that survived all operations in the query.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RecordField

A structure that represents a valid record field header and whether it is mandatory.

## Contents

**mandatory**

If this is `true`, the record field must be present in the `recordFields` parameter provided to a CreateDelivery or UpdateDeliveryConfiguration operation.

Type: Boolean

Required: No

**name**

The name to use when specifying this record field in a CreateDelivery or UpdateDeliveryConfiguration operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RejectedEntityInfo

If an entity is rejected when a `PutLogEvents` request was made, this includes details about the reason for the rejection.

## Contents

**errorType**

The type of error that caused the rejection of the entity when calling `PutLogEvents`.

Type: String

Valid Values: `InvalidEntity | InvalidTypeValue | InvalidKeyAttributes | InvalidAttributes | EntitySizeTooLarge | UnsupportedLogGroupType | MissingRequiredFields`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RejectedLogEventsInfo

Represents the rejected events.

## Contents

**expiredLogEventEndIndex**

The expired log events.

Type: Integer

Required: No

**tooNewLogEventStartIndex**

The index of the first log event that is too new. This field is inclusive.

Type: Integer

Required: No

**tooOldLogEventEndIndex**

The index of the last log event that is too old. This field is exclusive.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RenameKeyEntry

This object defines one key that will be renamed with the renameKey processor.

## Contents

**key**

The key to rename

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**renameTo**

The string to use for the new key name

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**overwriteIfExists**

Specifies whether to overwrite the existing value if the destination key already exists. The default is `false`

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

# RenameKeys

Use this processor to rename keys in a log event.

For more information about this processor including examples, see renameKeys in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of `RenameKeyEntry` objects, where each object contains the information about a single key to rename.

Type: Array of RenameKeyEntry objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ResourceConfig

This structure contains configuration details about an integration between CloudWatch Logs and another entity.

## Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

**openSearchResourceConfig**

This structure contains configuration details about an integration between CloudWatch Logs and OpenSearch Service.

Type: OpenSearchResourceConfig object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ResourcePolicy

A policy enabling one or more entities to put logs to a log group in this account.

## Contents

**lastUpdatedTime**

Timestamp 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 51200.

Required: No

**policyName**

The name of the resource policy.

Type: String

Required: No

**policyScope**

Specifies scope of the resource policy. Valid values are ACCOUNT or RESOURCE.

Type: String

Valid Values: `ACCOUNT | RESOURCE`

Required: No

**resourceArn**

The ARN of the CloudWatch Logs resource to which the resource policy is attached. Only populated for resource-scoped policies.

Type: String

Required: No

**revisionId**

The revision ID of the resource policy. Only populated for resource-scoped policies.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ResultField

Contains one field from one log event returned by a CloudWatch Logs Insights query, along with the value of that field.

For more information about the fields that are generated by CloudWatch logs, see Supported Logs and Discovered Fields.

## Contents

**field**

The log event field.

Type: String

Required: No

**value**

The value of this field.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3Configuration

Configuration for Amazon S3 destination where scheduled query results are delivered.

## Contents

**destinationIdentifier**

The Amazon S3 URI where query results are delivered. Must be a valid S3 URI format.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `s3://[a-z0-9][\.\-a-z0-9]{1,61}[a-z0-9](/.*)?`

Required: Yes

**roleArn**

The ARN of the IAM role that grants permissions to write query results to the specified Amazon S3 destination.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

**kmsKeyId**

The Amazon Resource Name (ARN) of the KMS encryption key. Must belong to the same AWS Region as the destination Amazon S3 bucket.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**ownerAccountId**

The AWS accountId for the bucket owning account.

Type: String

Length Constraints: Fixed length of 12.

Pattern: ^\d{12}$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3DeliveryConfiguration

This structure contains delivery configurations that apply only when the delivery destination resource is an S3 bucket.

## Contents

**enableHiveCompatiblePath**

This parameter causes the S3 objects that contain delivered logs to use a prefix structure that allows for integration with Apache Hive.

Type: Boolean

Required: No

**suffixPath**

This string allows re-configuring the S3 object prefix to contain either static or variable sections. The valid variables to use in the suffix path vary by log type. To find the values supported for the suffix path for each log type, use the DescribeConfigurationTemplates operation and check the `allowedSuffixPathFields` field in the response. For more information about how the destination prefix, suffix path, and Hive-compatible setting determine the Amazon S3 object key, see Amazon S3 object key for V2 deliveries.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3TableIntegrationSource

Represents a data source association with an S3 Table Integration, including its status and metadata.

## Contents

**createdTimeStamp**

The timestamp when the data source association was created.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**dataSource**

The data source associated with the S3 Table Integration.

Type: DataSource object

Required: No

**identifier**

The unique identifier for this data source association.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

**parentSourceIdentifier**

The identifier of the parent data source for this association.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

**status**

The current status of the data source association.

Type: String

Valid Values: `ACTIVE | UNHEALTHY | FAILED | DATA_SOURCE_DELETE_IN_PROGRESS`

Required: No

**statusReason**

Additional information about the status of the data source association.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# S3TablesIntegration

Contains information about the S3 Tables integration configuration for a configuration template.

## Contents

**datasourceName**

The name of the S3 Tables datasource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**datasourceType**

The type of the S3 Tables datasource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ScheduledQueryDestination

Information about a destination where scheduled query results are processed, including processing status and any error messages.

## Contents

**destinationIdentifier**

The identifier for the destination where results are delivered.

Type: String

Required: No

**destinationType**

The type of destination for query results.

Type: String

Valid Values: `S3 | LOOKUP_TABLE`

Required: No

**errorMessage**

Error message if destination processing failed.

Type: String

Required: No

**processedIdentifier**

The identifier of the processed result at the destination.

Type: String

Required: No

**status**

The processing status of the destination delivery.

Type: String

Valid Values: `IN_PROGRESS | CLIENT_ERROR | FAILED | COMPLETE`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ScheduledQuerySummary

Summary information about a scheduled query, including basic configuration and execution status.

## Contents

**creationTime**

The timestamp when the scheduled query was created.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**destinationConfiguration**

Configuration for where query results are delivered.

Type: DestinationConfiguration object

Required: No

**lastExecutionStatus**

The status of the most recent execution.

Type: String

Valid Values: `Running | InvalidQuery | Complete | Failed | Timeout`

Required: No

**lastTriggeredTime**

The timestamp when the scheduled query was last executed.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**lastUpdatedTime**

The timestamp when the scheduled query was last updated.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**name**

The name of the scheduled query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 300.

Required: No

**scheduledQueryArn**

The ARN of the scheduled query.

Type: String

Required: No

**scheduleExpression**

The cron expression that defines when the scheduled query runs.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**scheduleType**

The schedule type of the scheduled query. Valid values are `CUSTOMER_MANAGED` and `AWS_MANAGED`.

Type: String

Valid Values: `CUSTOMER_MANAGED | AWS_MANAGED`

Required: No

**state**

The current state of the scheduled query.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

**timezone**

The timezone used for evaluating the schedule expression.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# 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 Java V2
- AWS SDK for Ruby V3

# SplitString

Use this processor to split a field into an array of strings using a delimiting character.

For more information about this processor including examples, see splitString in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of `SplitStringEntry` objects, where each object contains the information about one field to split.

Type: Array of SplitStringEntry objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SplitStringEntry

This object defines one log field that will be split with the splitString processor.

## Contents

**delimiter**

The separator characters to split the string entry on.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**source**

The key of the field to split.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# StartLiveTailResponseStream

This object includes the stream returned by your StartLiveTail request.

## Contents

**sessionStart**

This object contains information about this Live Tail session, including the log groups included and the log stream filters, if any.

Type: LiveTailSessionStart object

Required: No

**SessionStreamingException**

This exception is returned if an unknown error occurs.

Type: Exception

HTTP Status Code:

Required: No

**SessionTimeoutException**

This exception is returned in the stream when the Live Tail session times out. Live Tail sessions time out after three hours.

Type: Exception

HTTP Status Code:

Required: No

**sessionUpdate**

This object contains the log events and session metadata.

Type: LiveTailSessionUpdate object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SubscriptionFilter

Represents a subscription filter.

## Contents

**applyOnTransformedLogs**

This parameter is valid only for log groups that have an active log transformer. For more information about log transformers, see PutTransformer.

If this value is `true`, the subscription filter is applied on the transformed version of the log events instead of the original ingested log events.

Type: Boolean

Required: No

**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

**emitSystemFields**

The list of system fields that are included in the log events sent to the subscription destination. Returns the `emitSystemFields` value if it was specified when the subscription filter was created.

Type: Array of strings

Required: No

**fieldSelectionCriteria**

The filter expression that specifies which log events are processed by this subscription filter based on system fields. Returns the `fieldSelectionCriteria` value if it was specified when the subscription filter was created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2000.

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 can contain timestamps, 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-Za-z0-9]+`

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 Java V2
- AWS SDK for Ruby V3

# SubstituteString

This processor matches a key's value against a regular expression and replaces all matches with a replacement string.

For more information about this processor including examples, see substituteString in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of objects, where each object contains the information about one key to match and replace.

Type: Array of SubstituteStringEntry objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SubstituteStringEntry

This object defines one log field key that will be replaced using the substituteString processor.

## Contents

**from**

The regular expression string to be replaced. Special regex characters such as [ and ] must be escaped using \\ when using double quotes and with \ when using single quotes. For more information, see Class Pattern on the Oracle web site.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**source**

The key to modify

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**to**

The string to be substituted for each match of `from`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SuppressionPeriod

If you are suppressing an anomaly temporariliy, this structure defines how long the suppression period is to be.

## Contents

**suppressionUnit**

Specifies whether the value of `value` is in seconds, minutes, or hours.

Type: String

Valid Values: `SECONDS | MINUTES | HOURS`

Required: No

**value**

Specifies the number of seconds, minutes or hours to suppress this anomaly. There is no maximum.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# SyslogConfiguration

Contains information about a syslog configuration associated with a log group.

## Contents

**createdAt**

The time when the syslog configuration was created, expressed as the number of milliseconds after `Jan 1, 1970 00:00:00 UTC`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

**logGroupArn**

The ARN of the log group associated with this syslog configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\w#+=/:,.@-]*`

Required: No

**sourceType**

The source type for the syslog configuration.

Type: String

Valid Values: `VPCE`

Required: No

**vpcEndpointId**

The ID of the VPC endpoint used for syslog ingestion.

Type: String

Pattern: `^vpce-[0-9a-f]{1,64}$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TagFilter

A tag filter that specifies a tag key and optional tag values for filtering log groups by tags.

## Contents

**key**

The tag key to filter on.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]+)$`

Required: Yes

**values**

An optional list of tag values to filter on.

- If you specify a filter that contains more than one value for a key, the response returns log groups that match any of the specified values for that key.
- If you don't specify values, the response returns all log groups that are tagged with that key, with any or no value.
- Use `*` for wildcard matching. For example, `prod*` matches values that start with `prod`.
- Use `!` as a prefix for negation. For example, `!prod` matches values that are not `prod`.
- Exact matching and negation are case-sensitive. Wildcard matching is case-insensitive.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Length Constraints: Minimum length of 0. Maximum length of 259.

Pattern: `^!?\*?([\p{L}\p{Z}\p{N}_.:/=+\-@]*)\*?$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TransformedLogRecord

This structure contains information for one log event that has been processed by a log transformer.

## Contents

**eventMessage**

The original log event message before it was transformed.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**eventNumber**

The event number.

Type: Long

Required: No

**transformedEventMessage**

The log event message after being transformed.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TriggerHistoryRecord

A record of a scheduled query execution, including execution status, timestamp, and destination processing results.

## Contents

**destinations**

Information about destination processing for this query execution.

Type: Array of ScheduledQueryDestination objects

Required: No

**errorMessage**

Error message if the query execution failed.

Type: String

Required: No

**executionStatus**

The execution status of the scheduled query run.

Type: String

Valid Values: `Running | InvalidQuery | Complete | Failed | Timeout`

Required: No

**queryId**

The unique identifier for this query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**triggeredTimestamp**

The timestamp when the scheduled query execution was triggered.

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 Java V2
- AWS SDK for Ruby V3

# TrimString

Use this processor to remove leading and trailing whitespace.

For more information about this processor including examples, see trimString in the *CloudWatch Logs User Guide*.

## Contents

**withKeys**

The array containing the keys of the fields to trim.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TypeConverter

Use this processor to convert a value type associated with the specified key to the specified type. It's a casting processor that changes the types of the specified fields. Values can be converted into one of the following datatypes: `integer`, `double`, `string` and `boolean`.

For more information about this processor including examples, see trimString in the *CloudWatch Logs User Guide*.

## Contents

**entries**

An array of `TypeConverterEntry` objects, where each object contains the information about one field to change the type of.

Type: Array of TypeConverterEntry objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# TypeConverterEntry

This object defines one value type that will be converted using the typeConverter processor.

## Contents

**key**

The key with the value that is to be converted to a different type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

**type**

The type to convert the field value to. Valid values are `integer`, `double`, `string` and `boolean`.

Type: String

Valid Values: `boolean | integer | double | string`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# UpperCaseString

This processor converts a string field to uppercase.

For more information about this processor including examples, see upperCaseString in the *CloudWatch Logs User Guide*.

## Contents

**withKeys**

The array of containing the keys of the field to convert to uppercase.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

**X-Amz-Algorithm**

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

**X-Amz-Credential**

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

**X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

**X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

**AccessDeniedException**

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

**ExpiredTokenException**

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

**IncompleteSignature**

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

**InternalFailure**

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

**MalformedHttpRequestException**

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

**NotAuthorized**

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

**OptInRequired**

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

**RequestAbortedException**

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

**RequestEntityTooLargeException**

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

**RequestTimeoutException**

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

**ServiceUnavailable**

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

**ThrottlingException**

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

**UnknownOperationException**

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

**UnrecognizedClientException**

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

**ValidationError**

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400