Amazon Data Lifecycle Manager

API Reference

API Version 2018-01-12

Amazon Data Lifecycle Manager: API Reference

Copyright © Amazon Web Services, Inc. and/or its affiliates. All rights reserved.

Table of Contents

Welcome

With Amazon Data Lifecycle Manager, you can manage the lifecycle of your AWS resources. You create lifecycle policies, which are used to automate operations on the specified resources.

Amazon DLM supports Amazon EBS volumes and snapshots. For information about using Amazon DLM with Amazon EBS, see Automating the Amazon EBS Snapshot Lifecycle in the *Amazon EC2 User Guide*.

This document was last published on October 6, 2021.

Actions

The following actions are supported:

CreateLifecyclePolicy

Creates a policy to manage the lifecycle of the specified AWS resources. You can create up to 100 lifecycle policies.

Request Syntax

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

{
   "Description": "string",
   "ExecutionRoleArn": "string",
   "PolicyDetails": {
      "Actions": [
         {
            "CrossRegionCopy": [
               {
                  "EncryptionConfiguration": {
                     "CmkArn": "string",
                     "Encrypted": boolean
                  },
                  "RetainRule": {
                     "Interval": number,
                     "IntervalUnit": "string"
                  },
                  "Target": "string"
               }
            ],
            "Name": "string"
         }
      ],
      "EventSource": {
         "Parameters": {
            "DescriptionRegex": "string",
            "EventType": "string",
            "SnapshotOwner": [ "string" ]
         },
         "Type": "string"
      },
      "Parameters": {
         "ExcludeBootVolume": boolean,
         "NoReboot": boolean
      },
      "PolicyType": "string",
      "ResourceLocations": [ "string" ],
      "ResourceTypes": [ "string" ],
      "Schedules": [
         {
            "CopyTags": boolean,
            "CreateRule": {
               "CronExpression": "string",
               "Interval": number,
               "IntervalUnit": "string",
               "Location": "string",
               "Times": [ "string" ]
            },
            "CrossRegionCopyRules": [
               {
                  "CmkArn": "string",
                  "CopyTags": boolean,
                  "DeprecateRule": {
```

```
                "Interval": number,
                "IntervalUnit": "string"
            },
            "Encrypted": boolean,
            "RetainRule": {
                "Interval": number,
                "IntervalUnit": "string"
            },
            "Target": "string",
            "TargetRegion": "string"
        }
    ],
    "DeprecateRule": {
        "Count": number,
        "Interval": number,
        "IntervalUnit": "string"
    },
    "FastRestoreRule": {
        "AvailabilityZones": [ "string" ],
        "Count": number,
        "Interval": number,
        "IntervalUnit": "string"
    },
    "Name": "string",
    "RetainRule": {
        "Count": number,
        "Interval": number,
        "IntervalUnit": "string"
    },
    "ShareRules": [
        {
            "TargetAccounts": [ "string" ],
            "UnshareInterval": number,
            "UnshareIntervalUnit": "string"
        }
    ],
    "TagsToAdd": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "VariableTags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
        }
    ],
    "TargetTags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
    },
    "State": "string",
    "Tags": {
        "string" : "string"
    }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

Description (p. 3)

A description of the lifecycle policy. The characters ^[0-9A-Za-z _-]+$ are supported.

Type: String

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

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

Required: Yes

ExecutionRoleArn (p. 3)

The Amazon Resource Name (ARN) of the IAM role used to run the operations specified by the lifecycle policy.

Type: String

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

Pattern: `arn:aws(-[a-z]{1,3}){0,2}:iam::\d+:role/.*`

Required: Yes

PolicyDetails (p. 3)

The configuration details of the lifecycle policy.

Type: PolicyDetails (p. 49) object

Required: Yes

State (p. 3)

The desired activation state of the lifecycle policy after creation.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: Yes

Tags (p. 3)

The tags to apply to the lifecycle policy during creation.

Type: String to string map

Map Entries: Maximum number of 200 items.

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

Key Pattern: `^(?!aws:)[a-zA-Z+-=._:/]+$`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\p{all}]*`

Required: No

Response Syntax

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

{
    "PolicyId": "string"
}
```

Response Elements

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

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

PolicyId (p. 6)

The identifier of the lifecycle policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `policy-[A-Za-z0-9]+`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

The service failed in an unexpected way.

HTTP Status Code: 500

InvalidRequestException

Bad request. The request is missing required parameters or has invalid parameters.

HTTP Status Code: 400

LimitExceededException

The request failed because a limit was exceeded.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteLifecyclePolicy

Deletes the specified lifecycle policy and halts the automated operations that the policy specified.

Request Syntax

```
DELETE /policies/policyId/ HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

policyId (p. 8)

> The identifier of the lifecycle policy.
>
> Length Constraints: Minimum length of 0. Maximum length of 64.
>
> Pattern: `policy-[A-Za-z0-9]+`
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

> The service failed in an unexpected way.
>
> HTTP Status Code: 500

LimitExceededException

> The request failed because a limit was exceeded.
>
> HTTP Status Code: 429

ResourceNotFoundException

> A requested resource was not found.

HTTP Status Code: 404

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetLifecyclePolicies

Gets summary information about all or the specified data lifecycle policies.

To get complete information about a policy, use GetLifecyclePolicy (p. 13).

Request Syntax

```
GET /policies?
policyIds=PolicyIds&resourceTypes=ResourceTypes&state=State&tagsToAdd=TagsToAdd&targetTags=TargetTags
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

PolicyIds (p. 10)

>   The identifiers of the data lifecycle policies.

>   Length Constraints: Minimum length of 0. Maximum length of 64.

>   Pattern: `policy-[A-Za-z0-9]+`

ResourceTypes (p. 10)

>   The resource type.

>   Array Members: Fixed number of 1 item.

>   Valid Values: `VOLUME | INSTANCE`

State (p. 10)

>   The activation state.

>   Valid Values: `ENABLED | DISABLED | ERROR`

TagsToAdd (p. 10)

>   The tags to add to objects created by the policy.

>   Tags are strings in the format `key=value`.

>   These user-defined tags are added in addition to the AWS-added lifecycle tags.

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

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

>   Pattern: `[\p{all}]*`

TargetTags (p. 10)

>   The target tag for a policy.

>   Tags are strings in the format `key=value`.

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

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

Pattern: `[\p{all}]*`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Policies": [
      {
         "Description": "string",
         "PolicyId": "string",
         "PolicyType": "string",
         "State": "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.

Policies (p. 11)

Summary information about the lifecycle policies.

Type: Array of LifecyclePolicySummary (p. 46) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

The service failed in an unexpected way.

HTTP Status Code: 500

InvalidRequestException

Bad request. The request is missing required parameters or has invalid parameters.

HTTP Status Code: 400

LimitExceededException

The request failed because a limit was exceeded.

HTTP Status Code: 429

ResourceNotFoundException

A requested resource was not found.

HTTP Status Code: 404

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetLifecyclePolicy

Gets detailed information about the specified lifecycle policy.

Request Syntax

```
GET /policies/policyId/ HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

policyId (p. 13)

The identifier of the lifecycle policy.

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `policy-[A-Za-z0-9]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Policy": {
      "DateCreated": number,
      "DateModified": number,
      "Description": "string",
      "ExecutionRoleArn": "string",
      "PolicyArn": "string",
      "PolicyDetails": {
         "Actions": [
            {
               "CrossRegionCopy": [
                  {
                     "EncryptionConfiguration": {
                        "CmkArn": "string",
                        "Encrypted": boolean
                     },
                     "RetainRule": {
                        "Interval": number,
                        "IntervalUnit": "string"
                     },
                     "Target": "string"
                  }
               ],
               "Name": "string"
            }
```

```
            ],
            "EventSource": {
                "Parameters": {
                    "DescriptionRegex": "string",
                    "EventType": "string",
                    "SnapshotOwner": [ "string" ]
                },
                "Type": "string"
            },
            "Parameters": {
                "ExcludeBootVolume": boolean,
                "NoReboot": boolean
            },
            "PolicyType": "string",
            "ResourceLocations": [ "string" ],
            "ResourceTypes": [ "string" ],
            "Schedules": [
                {
                    "CopyTags": boolean,
                    "CreateRule": {
                        "CronExpression": "string",
                        "Interval": number,
                        "IntervalUnit": "string",
                        "Location": "string",
                        "Times": [ "string" ]
                    },
                    "CrossRegionCopyRules": [
                        {
                            "CmkArn": "string",
                            "CopyTags": boolean,
                            "DeprecateRule": {
                                "Interval": number,
                                "IntervalUnit": "string"
                            },
                            "Encrypted": boolean,
                            "RetainRule": {
                                "Interval": number,
                                "IntervalUnit": "string"
                            },
                            "Target": "string",
                            "TargetRegion": "string"
                        }
                    ],
                    "DeprecateRule": {
                        "Count": number,
                        "Interval": number,
                        "IntervalUnit": "string"
                    },
                    "FastRestoreRule": {
                        "AvailabilityZones": [ "string" ],
                        "Count": number,
                        "Interval": number,
                        "IntervalUnit": "string"
                    },
                    "Name": "string",
                    "RetainRule": {
                        "Count": number,
                        "Interval": number,
                        "IntervalUnit": "string"
                    },
                    "ShareRules": [
                        {
                            "TargetAccounts": [ "string" ],
                            "UnshareInterval": number,
                            "UnshareIntervalUnit": "string"
                        }
```

```
            ],
            "TagsToAdd": [
                {
                    "Key": "string",
                    "Value": "string"
                }
            ],
            "VariableTags": [
                {
                    "Key": "string",
                    "Value": "string"
                }
            ]
        }
    ],
    "TargetTags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
},
"PolicyId": "string",
"State": "string",
"StatusMessage": "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.

Policy (p. 13)

Detailed information about the lifecycle policy.

Type: LifecyclePolicy (p. 43) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

The service failed in an unexpected way.

HTTP Status Code: 500

LimitExceededException

The request failed because a limit was exceeded.

HTTP Status Code: 429

ResourceNotFoundException

A requested resource was not found.

HTTP Status Code: 404

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListTagsForResource

Lists the tags for the specified resource.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 17)

The Amazon Resource Name (ARN) of the resource.

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

Pattern: `^arn:aws(-[a-z]{1,3}){0,2}:dlm:[A-Za-z0-9_/.-]{0,63}:\d+:policy/[0-9A-Za-z_-]{1,128}$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
    "Tags": {
        "string" : "string"
    }
}
```

Response Elements

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

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

Tags (p. 17)

Information about the tags.

Type: String to string map

Map Entries: Maximum number of 200 items.

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

Key Pattern: `^(?!aws:)[a-zA-Z+-=._:/]+$`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\p{all}]*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

The service failed in an unexpected way.

HTTP Status Code: 500

InvalidRequestException

Bad request. The request is missing required parameters or has invalid parameters.

HTTP Status Code: 400

ResourceNotFoundException

A requested resource was not found.

HTTP Status Code: 404

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Adds the specified tags to the specified resource.

Request Syntax

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

{
    "Tags": {
        "string" : "string"
    }
}
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 19)

> The Amazon Resource Name (ARN) of the resource.
>
> Length Constraints: Minimum length of 0. Maximum length of 2048.
>
> Pattern: `^arn:aws(-[a-z]{1,3}){0,2}:dlm:[A-Za-z0-9_/.-]{0,63}:\d+:policy/`
> `[0-9A-Za-z_-]{1,128}$`
>
> Required: Yes

Request Body

The request accepts the following data in JSON format.

Tags (p. 19)

> One or more tags.
>
> Type: String to string map
>
> Map Entries: Maximum number of 200 items.
>
> Key Length Constraints: Minimum length of 1. Maximum length of 128.
>
> Key Pattern: `^(?!aws:)[a-zA-Z+-=._:/]+$`
>
> Value Length Constraints: Maximum length of 256.
>
> Value Pattern: `[\p{all}]*`
>
> Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

The service failed in an unexpected way.

HTTP Status Code: 500

InvalidRequestException

Bad request. The request is missing required parameters or has invalid parameters.

HTTP Status Code: 400

ResourceNotFoundException

A requested resource was not found.

HTTP Status Code: 404

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Removes the specified tags from the specified resource.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 21)

> The Amazon Resource Name (ARN) of the resource.
>
> Length Constraints: Minimum length of 0. Maximum length of 2048.
>
> Pattern: `^arn:aws(-[a-z]{1,3}){0,2}:dlm:[A-Za-z0-9_/.-]{0,63}:\d+:policy/[0-9A-Za-z_-]{1,128}$`
>
> Required: Yes

TagKeys (p. 21)

> The tag keys.
>
> Array Members: Minimum number of 1 item. Maximum number of 200 items.
>
> Length Constraints: Minimum length of 1. Maximum length of 128.
>
> Pattern: `^(?!aws:)[a-zA-Z+-=._:/]+$`
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

> The service failed in an unexpected way.

HTTP Status Code: 500

InvalidRequestException

Bad request. The request is missing required parameters or has invalid parameters.

HTTP Status Code: 400

ResourceNotFoundException

A requested resource was not found.

HTTP Status Code: 404

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateLifecyclePolicy

Updates the specified lifecycle policy.

Request Syntax

```
PATCH /policies/policyId HTTP/1.1
Content-type: application/json

{
   "Description": "string",
   "ExecutionRoleArn": "string",
   "PolicyDetails": {
      "Actions": [
         {
            "CrossRegionCopy": [
               {
                  "EncryptionConfiguration": {
                     "CmkArn": "string",
                     "Encrypted": boolean
                  },
                  "RetainRule": {
                     "Interval": number,
                     "IntervalUnit": "string"
                  },
                  "Target": "string"
               }
            ],
            "Name": "string"
         }
      ],
      "EventSource": {
         "Parameters": {
            "DescriptionRegex": "string",
            "EventType": "string",
            "SnapshotOwner": [ "string" ]
         },
         "Type": "string"
      },
      "Parameters": {
         "ExcludeBootVolume": boolean,
         "NoReboot": boolean
      },
      "PolicyType": "string",
      "ResourceLocations": [ "string" ],
      "ResourceTypes": [ "string" ],
      "Schedules": [
         {
            "CopyTags": boolean,
            "CreateRule": {
               "CronExpression": "string",
               "Interval": number,
               "IntervalUnit": "string",
               "Location": "string",
               "Times": [ "string" ]
            },
            "CrossRegionCopyRules": [
               {
                  "CmkArn": "string",
                  "CopyTags": boolean,
                  "DeprecateRule": {
                     "Interval": number,
```

```
                    "IntervalUnit": "string"
                },
                "Encrypted": boolean,
                "RetainRule": {
                    "Interval": number,
                    "IntervalUnit": "string"
                },
                "Target": "string",
                "TargetRegion": "string"
            }
        ],
        "DeprecateRule": {
            "Count": number,
            "Interval": number,
            "IntervalUnit": "string"
        },
        "FastRestoreRule": {
            "AvailabilityZones": [ "string" ],
            "Count": number,
            "Interval": number,
            "IntervalUnit": "string"
        },
        "Name": "string",
        "RetainRule": {
            "Count": number,
            "Interval": number,
            "IntervalUnit": "string"
        },
        "ShareRules": [
            {
                "TargetAccounts": [ "string" ],
                "UnshareInterval": number,
                "UnshareIntervalUnit": "string"
            }
        ],
        "TagsToAdd": [
            {
                "Key": "string",
                "Value": "string"
            }
        ],
        "VariableTags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    }
],
"TargetTags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
},
"State": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

policyId (p. 23)

>   The identifier of the lifecycle policy.

>   Length Constraints: Minimum length of 0. Maximum length of 64.

>   Pattern: `policy-[A-Za-z0-9]+`

>   Required: Yes

Request Body

The request accepts the following data in JSON format.

Description (p. 23)

>   A description of the lifecycle policy.

>   Type: String

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

>   Pattern: `[0-9A-Za-z _-]+`

>   Required: No

ExecutionRoleArn (p. 23)

>   The Amazon Resource Name (ARN) of the IAM role used to run the operations specified by the lifecycle policy.

>   Type: String

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

>   Pattern: `arn:aws(-[a-z]{1,3}){0,2}:iam::\d+:role/.*`

>   Required: No

PolicyDetails (p. 23)

>   The configuration of the lifecycle policy. You cannot update the policy type or the resource type.

>   Type: PolicyDetails (p. 49) object

>   Required: No

State (p. 23)

>   The desired activation state of the lifecycle policy after creation.

>   Type: String

>   Valid Values: `ENABLED | DISABLED`

>   Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 59).

InternalServerException

The service failed in an unexpected way.

HTTP Status Code: 500

InvalidRequestException

Bad request. The request is missing required parameters or has invalid parameters.

HTTP Status Code: 400

LimitExceededException

The request failed because a limit was exceeded.

HTTP Status Code: 429

ResourceNotFoundException

A requested resource was not found.

HTTP Status Code: 404

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Amazon Data Lifecycle Manager 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:

- Action (p. 28)
- CreateRule (p. 29)
- CrossRegionCopyAction (p. 31)
- CrossRegionCopyDeprecateRule (p. 32)
- CrossRegionCopyRetainRule (p. 33)
- CrossRegionCopyRule (p. 34)
- DeprecateRule (p. 36)
- EncryptionConfiguration (p. 37)
- EventParameters (p. 38)
- EventSource (p. 40)
- FastRestoreRule (p. 41)
- LifecyclePolicy (p. 43)
- LifecyclePolicySummary (p. 46)
- Parameters (p. 48)
- PolicyDetails (p. 49)
- RetainRule (p. 52)
- Schedule (p. 53)
- ShareRule (p. 55)
- Tag (p. 56)

Action

Specifies an action for an event-based policy.

Contents

CrossRegionCopy

The rule for copying shared snapshots across Regions.

Type: Array of CrossRegionCopyAction (p. 31) objects

Array Members: Minimum number of 0 items. Maximum number of 3 items.

Required: Yes

Name

A descriptive name for the action.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 120.

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

Required: Yes

See Also

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

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

CreateRule

Specifies when to create snapshots of EBS volumes.

You must specify either a Cron expression or an interval, interval unit, and start time. You cannot specify both.

Contents

CronExpression

The schedule, as a Cron expression. The schedule interval must be between 1 hour and 1 year. For more information, see Cron expressions in the *Amazon CloudWatch User Guide*.

Type: String

Length Constraints: Minimum length of 17. Maximum length of 106.

Pattern: `cron\([^\n]{11,100}\)`

Required: No

Interval

The interval between snapshots. The supported values are 1, 2, 3, 4, 6, 8, 12, and 24.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

IntervalUnit

The interval unit.

Type: String

Valid Values: `HOURS`

Required: No

Location

Specifies the destination for snapshots created by the policy. To create snapshots in the same Region as the source resource, specify `CLOUD`. To create snapshots on the same Outpost as the source resource, specify `OUTPOST_LOCAL`. If you omit this parameter, `CLOUD` is used by default.

If the policy targets resources in an AWS Region, then you must create snapshots in the same Region as the source resource.

If the policy targets resources on an Outpost, then you can create snapshots on the same Outpost as the source resource, or in the Region of that Outpost.

Type: String

Valid Values: `CLOUD | OUTPOST_LOCAL`

Required: No

Times

The time, in UTC, to start the operation. The supported format is hh:mm.

The operation occurs within a one-hour window following the specified time. If you do not specify a time, Amazon DLM selects a time within the next 24 hours.

Type: Array of strings

Array Members: Maximum number of 1 item.

Length Constraints: Fixed length of 5.

Pattern: `^(0[0-9]|1[0-9]|2[0-3]):[0-5][0-9]$`

Required: No

See Also

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

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

CrossRegionCopyAction

Specifies a rule for copying shared snapshots across Regions.

Contents

EncryptionConfiguration

The encryption settings for the copied snapshot.

Type: EncryptionConfiguration (p. 37) object

Required: Yes

RetainRule

Specifies the retention rule for cross-Region snapshot copies.

Type: CrossRegionCopyRetainRule (p. 33) object

Required: No

Target

The target Region.

Type: String

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

Pattern: `^[\w:\-\/\*]+$`

Required: Yes

See Also

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

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

CrossRegionCopyDeprecateRule

Specifies an AMI deprecation rule for cross-Region AMI copies created by a cross-Region copy rule.

Contents

Interval

The period after which to deprecate the cross-Region AMI copies. The period must be less than or equal to the cross-Region AMI copy retention period, and it can't be greater than 10 years. This is equivalent to 120 months, 520 weeks, or 3650 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

IntervalUnit

The unit of time in which to measure the **Interval**.

Type: String

Valid Values: `DAYS | WEEKS | MONTHS | YEARS`

Required: No

See Also

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

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

CrossRegionCopyRetainRule

Specifies the retention rule for cross-Region snapshot copies.

Contents

Interval

The amount of time to retain each snapshot. The maximum is 100 years. This is equivalent to 1200 months, 5200 weeks, or 36500 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

IntervalUnit

The unit of time for time-based retention.

Type: String

Valid Values: `DAYS | WEEKS | MONTHS | YEARS`

Required: No

See Also

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

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

CrossRegionCopyRule

Specifies a rule for cross-Region snapshot copies.

Contents

CmkArn

The Amazon Resource Name (ARN) of the AWS KMS key to use for EBS encryption. If this parameter is not specified, the default KMS key for the account is used.

Type: String

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

Pattern: `arn:aws(-[a-z]{1,3}){0,2}:kms:([a-z]+-){2,3}\d:\d+:key/.*`

Required: No

CopyTags

Indicates whether to copy all user-defined tags from the source snapshot to the cross-Region snapshot copy.

Type: Boolean

Required: No

DeprecateRule

The AMI deprecation rule for cross-Region AMI copies created by the rule.

Type: CrossRegionCopyDeprecateRule (p. 32) object

Required: No

Encrypted

To encrypt a copy of an unencrypted snapshot if encryption by default is not enabled, enable encryption using this parameter. Copies of encrypted snapshots are encrypted, even if this parameter is false or if encryption by default is not enabled.

Type: Boolean

Required: Yes

RetainRule

The retention rule that indicates how long snapshot copies are to be retained in the destination Region.

Type: CrossRegionCopyRetainRule (p. 33) object

Required: No

Target

The target Region or the Amazon Resource Name (ARN) of the target Outpost for the snapshot copies.

Use this parameter instead of **TargetRegion**. Do not specify both.

Type: String

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

Pattern: `^[\w:\-\/\*]+$`

Required: No

TargetRegion

Avoid using this parameter when creating new policies. Instead, use **Target** to specify a target Region or a target Outpost for snapshot copies.

For policies created before the **Target** parameter was introduced, this parameter indicates the target Region for snapshot copies.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16.

Pattern: `([a-z]+-){2,3}\d`

Required: No

See Also

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

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

DeprecateRule

Specifies an AMI deprecation rule for a schedule.

Contents

Count

If the schedule has a count-based retention rule, this parameter specifies the number of oldest AMIs to deprecate. The count must be less than or equal to the schedule's retention count, and it can't be greater than 1000.

Type: Integer

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

Required: No

Interval

If the schedule has an age-based retention rule, this parameter specifies the period after which to deprecate AMIs created by the schedule. The period must be less than or equal to the schedule's retention period, and it can't be greater than 10 years. This is equivalent to 120 months, 520 weeks, or 3650 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

IntervalUnit

The unit of time in which to measure the **Interval**.

Type: String

Valid Values: `DAYS | WEEKS | MONTHS | YEARS`

Required: No

See Also

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

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

EncryptionConfiguration

Specifies the encryption settings for shared snapshots that are copied across Regions.

Contents

CmkArn

The Amazon Resource Name (ARN) of the AWS KMS key to use for EBS encryption. If this parameter is not specified, the default KMS key for the account is used.

Type: String

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

Pattern: `arn:aws(-[a-z]{1,3}){0,2}:kms:([a-z]+-){2,3}\d:\d+:key/.*`

Required: No

Encrypted

To encrypt a copy of an unencrypted snapshot when encryption by default is not enabled, enable encryption using this parameter. Copies of encrypted snapshots are encrypted, even if this parameter is false or when encryption by default is not enabled.

Type: Boolean

Required: Yes

See Also

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

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

EventParameters

Specifies an event that triggers an event-based policy.

Contents

DescriptionRegex

The snapshot description that can trigger the policy. The description pattern is specified using a regular expression. The policy runs only if a snapshot with a description that matches the specified pattern is shared with your account.

For example, specifying `^.*Created for policy: policy-1234567890abcdef0.*$` configures the policy to run only if snapshots created by policy `policy-1234567890abcdef0` are shared with your account.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `[\p{all}]*`

Required: Yes

EventType

The type of event. Currently, only snapshot sharing events are supported.

Type: String

Valid Values: `shareSnapshot`

Required: Yes

SnapshotOwner

The IDs of the AWS accounts that can trigger policy by sharing snapshots with your account. The policy only runs if one of the specified AWS accounts shares a snapshot with your account.

Type: Array of strings

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

Length Constraints: Fixed length of 12.

Pattern: `^[0-9]{12}$`

Required: Yes

See Also

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

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

EventSource

Specifies an event that triggers an event-based policy.

Contents

Parameters

Information about the event.

Type: EventParameters (p. 38) object

Required: No

Type

The source of the event. Currently only managed CloudWatch Events rules are supported.

Type: String

Valid Values: `MANAGED_CWE`

Required: Yes

See Also

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

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

FastRestoreRule

Specifies a rule for enabling fast snapshot restore. You can enable fast snapshot restore based on either a count or a time interval.

Contents

AvailabilityZones

The Availability Zones in which to enable fast snapshot restore.

Type: Array of strings

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

Length Constraints: Minimum length of 0. Maximum length of 16.

Pattern: `([a-z]+-){2,3}\d[a-z]`

Required: Yes

Count

The number of snapshots to be enabled with fast snapshot restore.

Type: Integer

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

Required: No

Interval

The amount of time to enable fast snapshot restore. The maximum is 100 years. This is equivalent to 1200 months, 5200 weeks, or 36500 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

IntervalUnit

The unit of time for enabling fast snapshot restore.

Type: String

Valid Values: `DAYS | WEEKS | MONTHS | YEARS`

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- [AWS SDK for Ruby V3](#)

LifecyclePolicy

Detailed information about a lifecycle policy.

Contents

DateCreated

The local date and time when the lifecycle policy was created.

Type: Timestamp

Required: No

DateModified

The local date and time when the lifecycle policy was last modified.

Type: Timestamp

Required: No

Description

The description of the lifecycle policy.

Type: String

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

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

Required: No

ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role used to run the operations specified by the lifecycle policy.

Type: String

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

Pattern: `arn:aws(-[a-z]{1,3}){0,2}:iam::\d+:role/.*`

Required: No

PolicyArn

The Amazon Resource Name (ARN) of the policy.

Type: String

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

Pattern: `^arn:aws(-[a-z]{1,3}){0,2}:dlm:[A-Za-z0-9_/.-]{0,63}:\d+:policy/`
`[0-9A-Za-z_-]{1,128}$`

Required: No

PolicyDetails

The configuration of the lifecycle policy

Type: PolicyDetails (p. 49) object

Required: No

PolicyId

The identifier of the lifecycle policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `policy-[A-Za-z0-9]+`

Required: No

State

The activation state of the lifecycle policy.

Type: String

Valid Values: `ENABLED | DISABLED | ERROR`

Required: No

StatusMessage

The description of the status.

Type: String

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

Pattern: `[\p{all}]*`

Required: No

Tags

The tags.

Type: String to string map

Map Entries: Maximum number of 200 items.

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

Key Pattern: `^(?!aws:)[a-zA-Z+-=._:/]+$`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\p{all}]*`

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- [AWS SDK for Ruby V3](#)

LifecyclePolicySummary

Summary information about a lifecycle policy.

Contents

Description

The description of the lifecycle policy.

Type: String

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

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

Required: No

PolicyId

The identifier of the lifecycle policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `policy-[A-Za-z0-9]+`

Required: No

PolicyType

The type of policy. `EBS_SNAPSHOT_MANAGEMENT` indicates that the policy manages the lifecycle of Amazon EBS snapshots. `IMAGE_MANAGEMENT` indicates that the policy manages the lifecycle of EBS-backed AMIs.

Type: String

Valid Values: `EBS_SNAPSHOT_MANAGEMENT | IMAGE_MANAGEMENT | EVENT_BASED_POLICY`

Required: No

State

The activation state of the lifecycle policy.

Type: String

Valid Values: `ENABLED | DISABLED | ERROR`

Required: No

Tags

The tags.

Type: String to string map

Map Entries: Maximum number of 200 items.

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

Key Pattern: `^(?!aws:)[a-zA-Z+-=._:/]+$`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\p{all}]*`

Required: No

See Also

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

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

Parameters

Specifies optional parameters to add to a policy. The set of valid parameters depends on the combination of policy type and resource type.

Contents

ExcludeBootVolume

[EBS Snapshot Management – Instance policies only] Indicates whether to exclude the root volume from snapshots created using CreateSnapshots. The default is false.

Type: Boolean

Required: No

NoReboot

Applies to AMI lifecycle policies only. Indicates whether targeted instances are rebooted when the lifecycle policy runs. `true` indicates that targeted instances are not rebooted when the policy runs. `false` indicates that target instances are rebooted when the policy runs. The default is `true` (instances are not rebooted).

Type: Boolean

Required: No

See Also

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

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

PolicyDetails

Specifies the configuration of a lifecycle policy.

Contents

Actions

The actions to be performed when the event-based policy is triggered. You can specify only one action per policy.

This parameter is required for event-based policies only. If you are creating a snapshot or AMI policy, omit this parameter.

Type: Array of Action (p. 28) objects

Array Members: Fixed number of 1 item.

Required: No

EventSource

The event that triggers the event-based policy.

This parameter is required for event-based policies only. If you are creating a snapshot or AMI policy, omit this parameter.

Type: EventSource (p. 40) object

Required: No

Parameters

A set of optional parameters for snapshot and AMI lifecycle policies.

This parameter is required for snapshot and AMI policies only. If you are creating an event-based policy, omit this parameter.

Type: Parameters (p. 48) object

Required: No

PolicyType

The valid target resource types and actions a policy can manage. Specify `EBS_SNAPSHOT_MANAGEMENT` to create a lifecycle policy that manages the lifecycle of Amazon EBS snapshots. Specify `IMAGE_MANAGEMENT` to create a lifecycle policy that manages the lifecycle of EBS-backed AMIs. Specify `EVENT_BASED_POLICY` to create an event-based policy that performs specific actions when a defined event occurs in your AWS account.

The default is `EBS_SNAPSHOT_MANAGEMENT`.

Type: String

Valid Values: `EBS_SNAPSHOT_MANAGEMENT` | `IMAGE_MANAGEMENT` | `EVENT_BASED_POLICY`

Required: No

ResourceLocations

The location of the resources to backup. If the source resources are located in an AWS Region, specify `CLOUD`. If the source resources are located on an Outpost in your account, specify `OUTPOST`.

If you specify `OUTPOST`, Amazon Data Lifecycle Manager backs up all resources of the specified type with matching target tags across all of the Outposts in your account.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `CLOUD | OUTPOST`

Required: No

ResourceTypes

The target resource type for snapshot and AMI lifecycle policies. Use `VOLUME` to create snapshots of individual volumes or use `INSTANCE` to create multi-volume snapshots from the volumes for an instance.

This parameter is required for snapshot and AMI policies only. If you are creating an event-based policy, omit this parameter.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `VOLUME | INSTANCE`

Required: No

Schedules

The schedules of policy-defined actions for snapshot and AMI lifecycle policies. A policy can have up to four schedules—one mandatory schedule and up to three optional schedules.

This parameter is required for snapshot and AMI policies only. If you are creating an event-based policy, omit this parameter.

Type: Array of Schedule (p. 53) objects

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

Required: No

TargetTags

The single tag that identifies targeted resources for this policy.

This parameter is required for snapshot and AMI policies only. If you are creating an event-based policy, omit this parameter.

Type: Array of Tag (p. 56) objects

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

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go

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

RetainRule

Specifies the retention rule for a lifecycle policy. You can retain snapshots based on either a count or a time interval.

Contents

Count

The number of snapshots to retain for each volume, up to a maximum of 1000.

Type: Integer

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

Required: No

Interval

The amount of time to retain each snapshot. The maximum is 100 years. This is equivalent to 1200 months, 5200 weeks, or 36500 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

IntervalUnit

The unit of time for time-based retention.

Type: String

Valid Values: `DAYS | WEEKS | MONTHS | YEARS`

Required: No

See Also

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

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

Schedule

Specifies a backup schedule for a snapshot or AMI lifecycle policy.

Contents

CopyTags

Copy all user-defined tags on a source volume to snapshots of the volume created by this policy.

Type: Boolean

Required: No

CreateRule

The creation rule.

Type: CreateRule (p. 29) object

Required: No

CrossRegionCopyRules

The rule for cross-Region snapshot copies.

You can only specify cross-Region copy rules for policies that create snapshots in a Region. If the policy creates snapshots on an Outpost, then you cannot copy the snapshots to a Region or to an Outpost. If the policy creates snapshots in a Region, then snapshots can be copied to up to three Regions or Outposts.

Type: Array of CrossRegionCopyRule (p. 34) objects

Array Members: Minimum number of 0 items. Maximum number of 3 items.

Required: No

DeprecateRule

The AMI deprecation rule for the schedule.

Type: DeprecateRule (p. 36) object

Required: No

FastRestoreRule

The rule for enabling fast snapshot restore.

Type: FastRestoreRule (p. 41) object

Required: No

Name

The name of the schedule.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 120.

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

Required: No

RetainRule

The retention rule.

Type: RetainRule (p. 52) object

Required: No

ShareRules

The rule for sharing snapshots with other AWS accounts.

Type: Array of ShareRule (p. 55) objects

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

Required: No

TagsToAdd

The tags to apply to policy-created resources. These user-defined tags are in addition to the AWS-added lifecycle tags.

Type: Array of Tag (p. 56) objects

Array Members: Minimum number of 0 items. Maximum number of 45 items.

Required: No

VariableTags

A collection of key/value pairs with values determined dynamically when the policy is executed. Keys may be any valid Amazon EC2 tag key. Values must be in one of the two following formats: `$(instance-id)` or `$(timestamp)`. Variable tags are only valid for EBS Snapshot Management – Instance policies.

Type: Array of Tag (p. 56) objects

Array Members: Minimum number of 0 items. Maximum number of 45 items.

Required: No

See Also

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

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

ShareRule

Specifies a rule for sharing snapshots across AWS accounts.

Contents

TargetAccounts

The IDs of the AWS accounts with which to share the snapshots.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Fixed length of 12.

Pattern: `^[0-9]{12}$`

Required: Yes

UnshareInterval

The period after which snapshots that are shared with other AWS accounts are automatically unshared.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

UnshareIntervalUnit

The unit of time for the automatic unsharing interval.

Type: String

Valid Values: `DAYS | WEEKS | MONTHS | YEARS`

Required: No

See Also

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

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

Tag

Specifies a tag for a resource.

Contents

Key

The tag key.

Type: String

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

Pattern: `[\p{all}]*`

Required: Yes

Value

The tag value.

Type: String

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

Pattern: `[\p{all}]*`

Required: Yes

See Also

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

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

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signature Version 4 Signing Process in the *Amazon Web Services General Reference*.

Action

The action to be performed.

Type: string

Required: Yes

Version

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

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

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

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

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Handling Dates in Signature Version 4 in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to AWS Services That Work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from the AWS Security Token Service, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Task 1: Create a Canonical Request For Signature Version 4 in the *Amazon Web Services General Reference*.

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

Type: string

Required: Conditional

Common Errors

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

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

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

HTTP Status Code: 500

InvalidAction

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

HTTP Status Code: 400

InvalidClientTokenId

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

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

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

HTTP Status Code: 400

InvalidQueryParameter

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

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400

Logging Amazon Data Lifecycle Manager API Calls Using AWS CloudTrail

Amazon Data Lifecycle Manager (Amazon DLM) is integrated with AWS CloudTrail, a service that provides a record of actions taken by a user, role, or an AWS service in Amazon DLM. CloudTrail captures all API calls for Amazon DLM as events, including calls from the Amazon DLM console and from code calls to the Amazon DLM APIs. If you create a trail, you can enable continuous delivery of CloudTrail events to an Amazon S3 bucket, including events for Amazon DLM. If you don't configure a trail, you can still view the most recent events in the CloudTrail console in **Event history**. Using the information collected by CloudTrail, you can determine the request that was made to Amazon DLM, the IP address from which the request was made, who made the request, when it was made, and additional details.

To learn more about CloudTrail, see the AWS CloudTrail User Guide.

Amazon DLM Information in CloudTrail

CloudTrail is enabled on your AWS account when you create the account. When activity occurs in Amazon DLM, that activity is recorded in a CloudTrail event along with other AWS service events in **Event history**. You can view, search, and download recent events in your AWS account. For more information, see Viewing Events with CloudTrail Event History.

For an ongoing record of events in your AWS account, including events for Amazon DLM, create a trail. A trail enables CloudTrail to deliver log files to an Amazon S3 bucket. By default, when you create a trail in the console, the trail applies to all regions. The trail logs events from all regions in the AWS partition and delivers the log files to the Amazon S3 bucket that you specify. Additionally, you can configure other AWS services to further analyze and act upon the event data collected in CloudTrail logs. For more information, see:

- Overview for Creating a Trail
- CloudTrail Supported Services and Integrations
- Configuring Amazon SNS Notifications for CloudTrail
- Receiving CloudTrail Log Files from Multiple Regions and Receiving CloudTrail Log Files from Multiple Accounts

All Amazon DLM actions are logged by CloudTrail. For example, calls to the `CreateLifecyclePolicy` and `DeleteLifecyclePolicy` actions generate entries in the CloudTrail log files. For the complete list of actions, see Actions (p. 2).

Every event or log entry contains information about who generated the request. The identity information helps you determine the following:

- Whether the request was made with root or IAM user credentials.
- Whether the request was made with temporary security credentials for a role or federated user.
- Whether the request was made by another AWS service.

For more information, see the CloudTrail userIdentity Element.

Understanding Amazon DLM Log File Entries

A trail is a configuration that enables delivery of events as log files to an Amazon S3 bucket that you specify. CloudTrail log files contain one or more log entries. An event represents a single request from any source and includes information about the requested action, the date and time of the action, request parameters, and so on. CloudTrail log files are not an ordered stack trace of the public API calls, so they do not appear in any specific order.

Example Example: CreateLifecyclePolicy

The following is an example CloudTrail log entry for the `CreateLifecyclePolicy` action.

```
{
    "eventVersion": "1.05",
    "userIdentity": {
        "type": "Root",
        "principalId": "123456789012",
        "arn": "arn:aws:iam::123456789012:root",
        "accountId": "123456789012",
        "accessKeyId": "AKIAJA2ELRVCPEXAMPLE",
        "userName": "user",
        "sessionContext": {
            "attributes": {
                "mfaAuthenticated": "false",
                "creationDate": "2018-07-24T18:01:05Z"
            }
        }
    },
    "eventTime": "2018-07-24T18:20:28Z",
    "eventSource": "dlm.amazonaws.com",
    "eventName": "CreateLifecyclePolicy",
    "awsRegion": "us-west-2",
    "sourceIPAddress": "54.240.230.179",
    "userAgent": "console.ec2.amazonaws.com",
    "requestParameters": {
        "ExecutionRoleArn": "arn:aws:iam::123456789012:role/service-role/
AWSDataLifecycleManagerServiceRole",
        "PolicyDetails": {
            "ResourceTypes": [
                "VOLUME"
            ],
            "Schedules": [
                {
                    "CreateRule": {
                        "Interval": 12,
                        "IntervalUnit": "HOURS",
                        "Times": [
                            "09:00"
                        ]
                    },
                    "Name": "Default Schedule",
                    "RetainRule": {
                        "Count": 3
                    },
                    "TagsToAdd": [
                        {
                            "Key": "Name",
                            "Value": "backup-my-volume"
                        }
```

```
                ]
            }
        ],
        "TargetTags": [
            {
                "Key": "Name",
                "Value": "my-volume"
            }
        ]
    },
    "Description": "test-cloudtrail",
    "State": "DISABLED"
    },
    "responseElements": {
        "PolicyId": "policy-04ff8755fce0599eb"
    },
    "requestID": "3d714ca6-8f6e-11e8-92a4-35fd765427f0",
    "eventID": "28ab3121-6040-4a40-80c7-ae59b3adf405",
    "readOnly": false,
    "eventType": "AwsApiCall",
    "recipientAccountId": "123456789012"
}
```

Example Example: DeleteLifecyclePolicy

The following is an example CloudTrail log entry for the `DeleteLifecyclePolicy` action.

```
{
    "eventVersion": "1.05",
    "userIdentity": {
        "type": "Root",
        "principalId": "123456789012",
        "arn": "arn:aws:iam::123456789012:root",
        "accountId": "123456789012",
        "accessKeyId": "AKIAJA2ELRVCPEXAMPLE",
        "userName": "user",
        "sessionContext": {
            "attributes": {
                "mfaAuthenticated": "false",
                "creationDate": "2018-07-24T18:01:05Z"
            }
        }
    },
    "eventTime": "2018-07-24T19:33:33Z",
    "eventSource": "dlm.amazonaws.com",
    "eventName": "DeleteLifecyclePolicy",
    "awsRegion": "us-west-2",
    "sourceIPAddress": "54.240.230.241",
    "userAgent": "console.ec2.amazonaws.com",
    "requestParameters": {
        "policyId": "policy-04ff8755fce0599eb"
    },
    "responseElements": null,
    "requestID": "73260971-8f78-11e8-a156-598016e53fb2",
    "eventID": "3740f2fb-0d6a-4712-a7ad-eb9f17103fb2",
    "readOnly": false,
    "eventType": "AwsApiCall",
    "recipientAccountId": "123456789012"
}
```