



# **Manage SnapMirror policies**

## **ONTAP 9.10.1 REST API Documentation**

NetApp  
April 02, 2024

This PDF was generated from [https://docs.netapp.com/us-en/ontap-restapi-9101/ontap/snapmirror\\_policies\\_endpoint\\_overview.html](https://docs.netapp.com/us-en/ontap-restapi-9101/ontap/snapmirror_policies_endpoint_overview.html) on April 02, 2024. Always check [docs.netapp.com](https://docs.netapp.com) for the latest.

# Table of Contents

- Manage SnapMirror policies ..... 1
  - SnapMirror policies endpoint overview ..... 1
  - Retrieve SnapMirror async and sync policy types ..... 1
  - Create a SnapMirror policy ..... 12
  - Delete a SnapMirror policy ..... 24
  - Retrieve a specific SnapMirror policy ..... 27
  - Update the SnapMirror policy ..... 35

# Manage SnapMirror policies

## SnapMirror policies endpoint overview

### Managing SnapMirror policies

This API is used to manage SnapMirror policies of type "async" and "sync". When applied to a SnapMirror relationship, the SnapMirror policy controls the behavior of the relationship and specifies the configuration attributes for that relationship. The policy type "async" can be associated with a SnapMirror relationship that has either the FlexVol volume or FlexGroup volume or SVM as the endpoint. The policy type "sync" can be associated with a SnapMirror relationship that has FlexVol volume or a Consistency Group as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync" or "automated\_failover". If the "sync\_type" is "sync" then a write success is returned to the client after writing the data to the primary endpoint and before writing the data to the secondary endpoint. If the "sync\_type" is "strict\_sync" then a write success is returned to the client after writing the data to the both primary and secondary endpoints. The "sync\_type" of "automated\_failover" can be associated with a SnapMirror relationship that has Consistency Group as the endpoint.

Mapping of SnapMirror policies from CLI to REST

CLI	REST
mirror-vault	async
async-mirror w/	async w/
all_source_snapshots	copy_all_source_snapshots

CLI	REST	sync_type
sync-mirror	sync	sync
strict-sync-mirror	sync	strict_sync
automated-failover	sync	automated_failover

## Retrieve SnapMirror async and sync policy types

GET /snapmirror/policies

**Introduced In:** 9.6

Retrieves SnapMirror policies of type "async" and "sync".

### Related ONTAP commands

- `snapmirror policy show`

### Example

The following example shows how to retrieve a collection of SnapMirror policies.

```
GET "/api/snapmirror/policies"
```

## Learn more

- [DOC /snapmirror/policies](#)

## Parameters

Name	Type	In	Required	Description
name	string	query	False	Filter by name
identity_preservation	string	query	False	Filter by identity_preservation
uuid	string	query	False	Filter by uuid
sync_common_snap_shot_schedule.name	string	query	False	Filter by sync_common_snap_shot_schedule.name
sync_common_snap_shot_schedule.uuid	string	query	False	Filter by sync_common_snap_shot_schedule.uuid
transfer_schedule.name	string	query	False	Filter by transfer_schedule.name
transfer_schedule.uuid	string	query	False	Filter by transfer_schedule.uuid
network_compression_enabled	boolean	query	False	Filter by network_compression_enabled
comment	string	query	False	Filter by comment
type	string	query	False	Filter by type
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
throttle	integer	query	False	Filter by throttle

Name	Type	In	Required	Description
scope	string	query	False	Filter by scope
sync_type	string	query	False	Filter by sync_type
copy_all_source_snapshots	boolean	query	False	Filter by copy_all_source_snapshots  • Introduced in: 9.10
retention.count	integer	query	False	Filter by retention.count
retention.prefix	string	query	False	Filter by retention.prefix
retention.creation_schedule.name	string	query	False	Filter by retention.creation_schedule.name
retention.creation_schedule.uuid	string	query	False	Filter by retention.creation_schedule.uuid
retention.label	string	query	False	Filter by retention.label
rpo	integer	query	False	Filter by rpo  • Introduced in: 9.10
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned.  • Default value: 1

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
order_by	array[string]	query	False	Order results by specified fields and optional [asc

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
num_records	integer	Number of records
records	array[ <a href="#">snapmirror_policy</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "comment": "string",
    "identity_preservation": "full",
    "name": "Asynchronous",
    "retention": {
      "count": 7,
      "creation_schedule": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "weekly",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "label": "hourly",
      "prefix": "string"
    },
    "rpo": 0,
    "scope": "svm",
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    },
    "sync_common_snapshot_schedule": {
```

```

    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "sync_type": "sync",
  "throttle": 0,
  "transfer_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "type": "async",
  "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}

```

## Error

Status: Default

### ONTAP Error Response codes

Error code	Description
13303842	SnapMirror policy is not supported.

Name	Type	Description
error	error	



## Example error

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
next	<a href="#">href</a>	
self	<a href="#">href</a>	

\_links

Name	Type	Description
self	<a href="#">href</a>	

creation\_schedule

Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

snapmirror\_policy\_rule

SnapMirror policy rule for retention.

Name	Type	Description
count	integer	Number of Snapshot copies to be kept for retention.
creation_schedule	<a href="#">creation_schedule</a>	Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.
label	string	Snapshot copy label

Name	Type	Description
prefix	string	Specifies the prefix for the Snapshot copy name to be created as per the schedule. If no value is specified, then the label is used as the prefix.

svm

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

sync\_common\_snapshot\_schedule

Schedule used to create common Snapshot copies for synchronous relationships.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

transfer\_schedule

The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

snapmirror\_policy

SnapMirror policy information. SnapMirror policy can either be of type "async", "sync" or "continuous". The policy type "async" can be associated with a SnapMirror relationship that has either the FlexVol volume or FlexGroup volume or SVM as the endpoint. The policy type "sync" along with "sync\_type" as "sync" or "strict\_sync" can be associated with a SnapMirror relationship that has FlexVol volume as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync" or "automated\_failover". If the "sync\_type" is "sync" then a write success is returned to the client after writing

the data to the source endpoint and before writing the data to the destination endpoint. If the "sync\_type" is "strict\_sync" then a write success is returned to the client after writing the data to the both source and destination endpoints. If the "sync\_type" is "automated\_failover" then the policy can be associated with a SnapMirror relationship that has Consistency Group as the endpoint. Use the "sync" policy with "sync\_type" as "automated\_failover" to establish SnapMirror relationships for business continuity usecases. SnapMirror relationships with policy type as "sync" and "sync\_type" as "automated\_failover" can be monitored by the Mediator, if configured. In case the source Consistency Group endpoint is not reachable, the Mediator may trigger a failover to the destination Consistency Group endpoint. A policy of type "continuous" can be associated with SnapMirror relationships that have either ONTAP S3 buckets or NON-ONTAP object stores as endpoints. This type of policy is used for FabricLink owned targets.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies whether all source Snapshot copies should be copied to the destination on a transfer rather than specifying specific retentions. This is applicable only to async policies.
identity_preservation	string	Specifies which configuration of the source SVM is replicated to the destination SVM. This property is applicable only for SVM data protection with "async" policy type.
name	string	
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[ <a href="#">snapmirror_policy_rule</a> ]	Rules for Snapshot copy retention.
rpo	integer	Specifies the duration of time for which a change to be propagated to a mirror should be delayed, in seconds. This is an intentional propagation delay between mirrors and is configurable down to zero, which means an immediate propagation. This is supported for policies of type 'continuous'.

Name	Type	Description
scope	string	Set to "svm" for policies owned by an SVM, otherwise set to "cluster".
svm	svm	
sync_common_snapshot_schedule	<a href="#">sync_common_snapshot_schedule</a>	Schedule used to create common Snapshot copies for synchronous relationships.
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.
transfer_schedule	<a href="#">transfer_schedule</a>	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

# Create a SnapMirror policy

POST /snapmirror/policies

**Introduced In:** 9.6

Creates a SnapMirror policy. The property "identity\_preservation" is applicable to only SnapMirror relationships with SVM endpoints and it indicates which configuration of the source SVM is replicated to the destination SVM.

It takes the following values:

- `full` - indicates that the source SVM configuration is replicated to the destination SVM endpoint.
- `exclude_network_config` - indicates that the source SVM configuration other than network configuration is replicated to the destination SVM endpoint.
- `exclude_network_and_protocol_config` - indicates that the source SVM configuration is not replicated to the destination SVM endpoint.

## Important note

- The property "identity\_preservation" is applicable to only SnapMirror relationships with SVM endpoints and it indicates which configuration of the source SVM is replicated to the destination SVM.
- The properties "identity\_preservation" and "transfer\_schedule" are not applicable for "sync" type policies.
- The property "copy\_all\_source\_snapshots" is not applicable for "sync" type policies.
- No "retention" properties can be specified if "copy\_all\_source\_snapshots" is specified.
- The properties "retention.creation\_schedule" and "retention.prefix" are not applicable for "sync" type policies.
- The property "sync\_common\_snapshot\_schedule" is not applicable for an "async" type policy.
- The property "retention.count" specifies the maximum number of Snapshot copies that are retained on the SnapMirror destination volume.
- When the property "retention.label" is specified, the Snapshot copies that have a SnapMirror label matching this property is transferred to the SnapMirror destination.
- When the property "retention.creation\_schedule" is specified, Snapshot copies are directly created on the SnapMirror destination. The Snapshot copies created have the same content as the latest Snapshot copy already present on the SnapMirror destination.

## Required properties

- `name` - Name of the new SnapMirror policy.

## Recommended optional properties

- `svm.name` or `svm.uuid` - Name or UUID of the SVM that owns the SnapMirror policy.

## Default property values

If not specified in POST, the following default property values are assigned:

- type - *async*
- sync\_type - *sync* (when type is *sync*)
- copy\_all\_source\_snapshots - *false* {when 'type' is *async*}
- network\_compression\_enabled - *false*
- throttle - *0*
- identity\_preservation - *exclude\_network\_and\_protocol\_config*

## Related ONTAP commands

- snapmirror policy create

## Examples

Creating a SnapMirror policy of type "sync"

```
POST "/api/snapmirror/policies/" '{"name": "policy1", "svm.name": "VS0",
"type": "sync", "sync_type": "sync"}'
```

Creating a SnapMirror policy of type "async" with two sets of retention values, one with a creation\_schedule

```
POST "/api/snapmirror/policies" '{"name": "policy_ret", "svm": {"name":
"vs1"}, "retention": [{"label": "weekly", "count": "2",
"creation_schedule": {"name": "weekly"}}, {"label": "daily",
"count": "7"}]}'
```

Creating a SnapMirror policy of type "async"

```
POST "/api/snapmirror/policies" '{"name": "newPolicy", "svm":{"name" :
"vs1"}, "type": "async"}'
```

Creating a SnapMirror policy of type "async" which replicates all Snapshot copies

```
POST "/api/snapmirror/policies" '{"name": "newPolicy", "svm":{"name" :
"vs1"}, "type": "async", "copy_all_source_snapshots": "true"}'
```

Creating a SnapMirror policy of type "sync" with sync\_type as "automated\_failover"

```
POST "/api/snapmirror/policies/" '{"name": "policy1", "svm.name": "VS0",
"type": "sync", "sync_type": "automated_failover" }'
```

## Learn more

- [DOC /snapmirror/policies](#)

## Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"><li>• Default value:</li></ul>
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"><li>• Default value: 1</li><li>• Max value: 120</li><li>• Min value: 0</li></ul>

## Request Body



Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies whether all source Snapshot copies should be copied to the destination on a transfer rather than specifying specific retentions. This is applicable only to async policies.
identity_preservation	string	Specifies which configuration of the source SVM is replicated to the destination SVM. This property is applicable only for SVM data protection with "async" policy type.
name	string	
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[ <a href="#">snapmirror_policy_rule</a> ]	Rules for Snapshot copy retention.
rpo	integer	Specifies the duration of time for which a change to be propagated to a mirror should be delayed, in seconds. This is an intentional propagation delay between mirrors and is configurable down to zero, which means an immediate propagation. This is supported for policies of type 'continuous'.
scope	string	Set to "svm" for policies owned by an SVM, otherwise set to "cluster".
svm	<a href="#">svm</a>	
sync_common_snapshot_schedule	<a href="#">sync_common_snapshot_schedule</a>	Schedule used to create common Snapshot copies for synchronous relationships.
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.

Name	Type	Description
transfer_schedule	<a href="#">transfer_schedule</a>	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "identity_preservation": "full",
  "name": "Asynchronous",
  "retention": {
    "count": 7,
    "creation_schedule": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "weekly",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "label": "hourly",
    "prefix": "string"
  },
  "rpo": 0,
  "scope": "svm",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "sync_common_snapshot_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "sync_type": "sync",
}
```

```
"throttle": 0,
"transfer_schedule": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "weekly",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"type": "async",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}
```

## Response

Status: 202, Accepted

Name	Type	Description
job	<a href="#">job_link</a>	

## Example response

```
{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "string"
  }
}
```

## Error

Status: Default

ONTAP Error Response codes

Error code	Description
6619714	Schedule specified is an interval schedule. SnapMirror does not support interval schedules.
13303850	Invalid input parameter
13303887	Failed to create SnapMirror policy. Reason: Maximum number of allowed retention rules reached

Name	Type	Description
error	error	

### Example error

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	<a href="#">href</a>	

creation\_schedule

Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

snapmirror\_policy\_rule

SnapMirror policy rule for retention.

Name	Type	Description
count	integer	Number of Snapshot copies to be kept for retention.
creation_schedule	<a href="#">creation_schedule</a>	Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.
label	string	Snapshot copy label
prefix	string	Specifies the prefix for the Snapshot copy name to be created as per the schedule. If no value is specified, then the label is used as the prefix.

svm

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

#### sync\_common\_snapshot\_schedule

Schedule used to create common Snapshot copies for synchronous relationships.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### transfer\_schedule

The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### snapmirror\_policy

SnapMirror policy information. SnapMirror policy can either be of type "async", "sync" or "continuous". The policy type "async" can be associated with a SnapMirror relationship that has either the FlexVol volume or FlexGroup volume or SVM as the endpoint. The policy type "sync" along with "sync\_type" as "sync" or "strict\_sync" can be associated with a SnapMirror relationship that has FlexVol volume as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync" or "automated\_failover". If the "sync\_type" is "sync" then a write success is returned to the client after writing the data to the source endpoint and before writing the data to the destination endpoint. If the "sync\_type" is "strict\_sync" then a write success is returned to the client after writing the data to the both source and destination endpoints. If the "sync\_type" is "automated\_failover" then the policy can be associated with a SnapMirror relationship that has Consistency Group as the endpoint. Use the "sync" policy with "sync\_type" as "automated\_failover" to establish SnapMirror relationships for business continuity usecases. SnapMirror relationships with policy type as "sync" and "sync\_type" as "automated\_failover" can be monitored by the Mediator, if configured. In case the source Consistency Group endpoint is not reachable, the Mediator may trigger a failover to the destination Consistency Group endpoint. A policy of type "continuous" can be associated with SnapMirror relationships that have either ONTAP S3 buckets or NON-ONTAP object stores as endpoints. This type of policy is used for FabricLink owned targets.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies whether all source Snapshot copies should be copied to the destination on a transfer rather than specifying specific retentions. This is applicable only to async policies.
identity_preservation	string	Specifies which configuration of the source SVM is replicated to the destination SVM. This property is applicable only for SVM data protection with "async" policy type.
name	string	
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[ <a href="#">snapmirror_policy_rule</a> ]	Rules for Snapshot copy retention.
rpo	integer	Specifies the duration of time for which a change to be propagated to a mirror should be delayed, in seconds. This is an intentional propagation delay between mirrors and is configurable down to zero, which means an immediate propagation. This is supported for policies of type 'continuous'.
scope	string	Set to "svm" for policies owned by an SVM, otherwise set to "cluster".
svm	<a href="#">svm</a>	
sync_common_snapshot_schedule	<a href="#">sync_common_snapshot_schedule</a>	Schedule used to create common Snapshot copies for synchronous relationships.



Name	Type	Description
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.
transfer_schedule	<a href="#">transfer_schedule</a>	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	

#### job\_link

Name	Type	Description
_links	<a href="#">_links</a>	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

# Delete a SnapMirror policy

DELETE /snapmirror/policies/{uuid}

**Introduced In:** 9.6

Deletes a SnapMirror policy.

## Related ONTAP commands

- `snapmirror policy delete`

## Example

```
DELETE "/api/snapmirror/policies/510c15d4-f9e6-11e8-bdb5-0050568e12c2"
```

## Learn more

- [DOC /snapmirror/policies](#)

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Policy UUID

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

## Response

Status: 202, Accepted

Name	Type	Description
job	<a href="#">job_link</a>	

## Example response

```
{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "string"
  }
}
```

## Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	<a href="#">href</a>	

job\_link

Name	Type	Description
_links	<a href="#">_links</a>	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Retrieve a specific SnapMirror policy

GET /snapmirror/policies/{uuid}

**Introduced In:** 9.6

Retrieves a specific SnapMirror policy.

## Example

```
GET "/api/snapmirror/policies/567aaac0-f863-11e8-a666-0050568e12c2"
```

## Learn more

- [DOC /snapmirror/policies](#)

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Policy UUID
fields	array[string]	query	False	Specify the fields to return.

## Response

```
Status: 200, Ok
```

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies whether all source Snapshot copies should be copied to the destination on a transfer rather than specifying specific retentions. This is applicable only to async policies.
identity_preservation	string	Specifies which configuration of the source SVM is replicated to the destination SVM. This property is applicable only for SVM data protection with "async" policy type.
name	string	

Name	Type	Description
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[ <a href="#">snapmirror_policy_rule</a> ]	Rules for Snapshot copy retention.
rpo	integer	Specifies the duration of time for which a change to be propagated to a mirror should be delayed, in seconds. This is an intentional propagation delay between mirrors and is configurable down to zero, which means an immediate propagation. This is supported for policies of type 'continuous'.
scope	string	Set to "svm" for policies owned by an SVM, otherwise set to "cluster".
svm	<a href="#">svm</a>	
sync_common_snapshot_schedule	<a href="#">sync_common_snapshot_schedule</a>	Schedule used to create common Snapshot copies for synchronous relationships.
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.
transfer_schedule	<a href="#">transfer_schedule</a>	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "identity_preservation": "full",
  "name": "Asynchronous",
  "retention": {
    "count": 7,
    "creation_schedule": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "weekly",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "label": "hourly",
    "prefix": "string"
  },
  "rpo": 0,
  "scope": "svm",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "sync_common_snapshot_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "sync_type": "sync",
}
```



```

"throttle": 0,
"transfer_schedule": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "weekly",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"type": "async",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}

```

## Error

Status: Default

### ONTAP Error Response codes

Error code	Description
13303842	SnapMirror policy is not supported.

Name	Type	Description
error	error	

### Example error

```

{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}

```

# Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	<a href="#">href</a>	

creation\_schedule

Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

snapmirror\_policy\_rule

SnapMirror policy rule for retention.

Name	Type	Description
count	integer	Number of Snapshot copies to be kept for retention.
creation_schedule	<a href="#">creation_schedule</a>	Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.
label	string	Snapshot copy label
prefix	string	Specifies the prefix for the Snapshot copy name to be created as per the schedule. If no value is specified, then the label is used as the prefix.

svm

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

#### sync\_common\_snapshot\_schedule

Schedule used to create common Snapshot copies for synchronous relationships.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### transfer\_schedule

The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code

Name	Type	Description
message	string	Error message
target	string	The target parameter that caused the error.

## Update the SnapMirror policy

PATCH /snapmirror/policies/{uuid}

**Introduced In:** 9.6

Updates the SnapMirror policy.

### Important notes

- The properties "transfer\_schedule" and "throttle" can be modified only if all the SnapMirror relationships associated with the specified SnapMirror policy have the same values.
- The properties "retention.label" and "retention.count" are mandatory if "retention" is provided in the input. The provided "retention.label" is the final list and it replaces the existing values.
- The value of the "identity\_preservation" property cannot be changed if the SnapMirror relationships associated with the policy have different identity\_preservation configurations.
- If the SnapMirror policy "identity\_preservation" value matches the "identity\_preservation" value of the associated SnapMirror relationships, then the "identity\_preservation" value can be changed from a higher "identity\_preservation" threshold value to a lower "identity\_preservation" threshold value but not vice-versa. For example, the threshold value of the "identity\_preservation" property can be changed from "full" to "exclude\_network\_config" to "exclude\_network\_and\_protocol\_config", but could not be increased from "exclude\_network\_and\_protocol\_config" to "exclude\_network\_config" to "full".
- No "retention" properties can be modified if the "copy\_all\_source\_snapshots" property is present in the policy.
- The "copy\_all\_source\_snapshots" property of a policy cannot be modified.

### Related ONTAP commands

- `snapmirror policy modify`

### Example

Updating the "retention" property to add rules to a policy without any rules.

```
PATCH "/api/snapmirror/policies/fe65686d-00dc-11e9-b5fb-0050568e3f83"
'{"retention": [{"label": "newlabel", "count": 2}, {"label": "weekly",
"count": 2, "creation_schedule": {"name": "weekly"}}, {"label": "daily",
"count": 14}]}'
```

Updating the "retention" property to add rules to a policy with existing rules {"retention": [{"label": "oldLabel1", "count": 2}, {"label": "oldLabel2", "count": 5}]

```
PATCH "/api/snapmirror/policies/fe65686d-00dc-11e9-b5fb-0050568e3f83"
'{"retention": [{"label": "oldLabel1", "count": 2}, {"label": "oldLabel2",
"count": 5}, {"label": "newlabel", "count": 3}, {"label": "weekly",
"count": 1}]}'
```

Updating the "retention" property to remove a rule (oldLabel1) and add new rule to a policy with existing rules {"retention": [{"label": "oldLabel1", "count": 2}, {"label": "oldLabel2", "count": 3}]

```
PATCH "/api/snapmirror/policies/fe65686d-00dc-11e9-b5fb-0050568e3f83"
'{"retention": [{"label": "oldLabel2", "count": 3}, {"label": "newlabel",
"count": 2}]}'
```

Updating "transfer\_schedule", "throttle", and "identity\_preservation" properties

```
PATCH "/api/snapmirror/policies/8aef950b-3bef-11e9-80ac-0050568ea591"
'{"transfer_schedule.name" : "weekly", "throttle" : "100",
"identity_preservation": "exclude_network_and_protocol_config"}'
```

## Learn more

- [DOC /snapmirror/policies](#)

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Policy UUID

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

## Request Body

Name	Type	Description
_links	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies whether all source Snapshot copies should be copied to the destination on a transfer rather than specifying specific retentions. This is applicable only to async policies.

Name	Type	Description
identity_preservation	string	Specifies which configuration of the source SVM is replicated to the destination SVM. This property is applicable only for SVM data protection with "async" policy type.
name	string	
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[ <a href="#">snapmirror_policy_rule</a> ]	Rules for Snapshot copy retention.
rpo	integer	Specifies the duration of time for which a change to be propagated to a mirror should be delayed, in seconds. This is an intentional propagation delay between mirrors and is configurable down to zero, which means an immediate propagation. This is supported for policies of type 'continuous'.
scope	string	Set to "svm" for policies owned by an SVM, otherwise set to "cluster".
svm	<a href="#">svm</a>	
sync_common_snapshot_schedule	<a href="#">sync_common_snapshot_schedule</a>	Schedule used to create common Snapshot copies for synchronous relationships.
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.
transfer_schedule	<a href="#">transfer_schedule</a>	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	



## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "identity_preservation": "full",
  "name": "Asynchronous",
  "retention": {
    "count": 7,
    "creation_schedule": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "weekly",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "label": "hourly",
    "prefix": "string"
  },
  "rpo": 0,
  "scope": "svm",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "sync_common_snapshot_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "sync_type": "sync",
}
```

```
"throttle": 0,
"transfer_schedule": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "weekly",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"type": "async",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}
```

## Response

Status: 202, Accepted

Name	Type	Description
job	<a href="#">job_link</a>	

## Example response

```
{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "string"
  }
}
```

## Error

Status: Default

ONTAP Error Response codes

Error code	Description
6619714	Schedule specified is an interval schedule. SnapMirror does not support interval schedules.
13303842	SnapMirror policy is not supported.
13303843	Conflicting values between SnapMirror policy and SnapMirror relationships for either 'transfer_schedule, throttle or identity_preservation' properties
13303850	Invalid input parameter
13303887	Failed to create SnapMirror policy. Reason: Maximum number of allowed retention rules reached

Name	Type	Description
error	error	

### Example error

```

{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}

```

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	<a href="#">href</a>	

creation\_schedule

Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

snapmirror\_policy\_rule

SnapMirror policy rule for retention.

Name	Type	Description
count	integer	Number of Snapshot copies to be kept for retention.
creation_schedule	<a href="#">creation_schedule</a>	Schedule used to create Snapshot copies on the destination for long term retention. Only cron schedules are supported for SnapMirror.
label	string	Snapshot copy label
prefix	string	Specifies the prefix for the Snapshot copy name to be created as per the schedule. If no value is specified, then the label is used as the prefix.

svm

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

#### sync\_common\_snapshot\_schedule

Schedule used to create common Snapshot copies for synchronous relationships.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### transfer\_schedule

The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### snapmirror\_policy

SnapMirror policy information. SnapMirror policy can either be of type "async", "sync" or "continuous". The policy type "async" can be associated with a SnapMirror relationship that has either the FlexVol volume or FlexGroup volume or SVM as the endpoint. The policy type "sync" along with "sync\_type" as "sync" or "strict\_sync" can be associated with a SnapMirror relationship that has FlexVol volume as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync" or "automated\_failover". If the "sync\_type" is "sync" then a write success is returned to the client after writing the data to the source endpoint and before writing the data to the destination endpoint. If the "sync\_type" is "strict\_sync" then a write success is returned to the client after writing the data to the both source and destination endpoints. If the "sync\_type" is "automated\_failover" then the policy can be associated with a SnapMirror relationship that has Consistency Group as the endpoint. Use the "sync" policy with "sync\_type" as "automated\_failover" to establish SnapMirror relationships for business continuity usecases. SnapMirror relationships with policy type as "sync" and "sync\_type" as "automated\_failover" can be monitored by the Mediator, if configured. In case the source Consistency Group endpoint is not reachable, the Mediator may trigger a failover to the destination Consistency Group endpoint. A policy of type "continuous" can be associated with SnapMirror relationships that have either ONTAP S3 buckets or NON-ONTAP object stores as endpoints. This type of policy is used for FabricLink owned targets.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies whether all source Snapshot copies should be copied to the destination on a transfer rather than specifying specific retentions. This is applicable only to async policies.
identity_preservation	string	Specifies which configuration of the source SVM is replicated to the destination SVM. This property is applicable only for SVM data protection with "async" policy type.
name	string	
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[ <a href="#">snapmirror_policy_rule</a> ]	Rules for Snapshot copy retention.
rpo	integer	Specifies the duration of time for which a change to be propagated to a mirror should be delayed, in seconds. This is an intentional propagation delay between mirrors and is configurable down to zero, which means an immediate propagation. This is supported for policies of type 'continuous'.
scope	string	Set to "svm" for policies owned by an SVM, otherwise set to "cluster".
svm	<a href="#">svm</a>	
sync_common_snapshot_schedule	<a href="#">sync_common_snapshot_schedule</a>	Schedule used to create common Snapshot copies for synchronous relationships.

Name	Type	Description
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.
transfer_schedule	<a href="#">transfer_schedule</a>	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	

#### job\_link

Name	Type	Description
_links	<a href="#">_links</a>	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

## Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.