



# **Manage SnapMirror policies**

ONTAP 9.14.1 REST API reference

NetApp  
June 13, 2024

This PDF was generated from [https://docs.netapp.com/us-en/ontap-restapi-9141/ontap/snapmirror\\_policies\\_endpoint\\_overview.html](https://docs.netapp.com/us-en/ontap-restapi-9141/ontap/snapmirror_policies_endpoint_overview.html) on June 13, 2024. Always check 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 . . . . . 15
  - Delete a SnapMirror policy . . . . . 32
  - Retrieve a specific SnapMirror policy . . . . . 36
  - Update the SnapMirror policy . . . . . 45

# 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 a FlexVol volume, FlexGroup volume, or SVM as the endpoint. The policy type "sync" can be associated with a SnapMirror relationship that has a FlexVol volume or a consistency group as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync", "automated\_failover" or "automated\_failover\_duplex". If the "sync\_type" is "sync", 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", a write success is returned to the client after writing the data to both primary and secondary endpoints. A "sync\_type" of "automated\_failover" can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides asymmetric active active access to the two storage copies.

A "sync\_type" of "automated\_failover\_duplex" can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides symmetric active active access to the two storage copies.

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
async-mirror w/o	async w/
all_source_snapshots	copy_latest_source_snapshot
vault	async w/
	create_snapshot_on_source

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

## 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
copy_all_source_snapshots	boolean	query	False	Filter by copy_all_source_snapshots  • Introduced in: 9.10
uuid	string	query	False	Filter by uuid
transfer_schedule.name	string	query	False	Filter by transfer_schedule.name
transfer_schedule.uuid	string	query	False	Filter by transfer_schedule.uuid
copy_latest_source_snapshot	boolean	query	False	Filter by copy_latest_source_snapshot  • Introduced in: 9.11
network_compression_enabled	boolean	query	False	Filter by network_compression_enabled
svm.uuid	string	query	False	Filter by svm.uuid

Name	Type	In	Required	Description
svm.name	string	query	False	Filter by svm.name
comment	string	query	False	Filter by comment
scope	string	query	False	Filter by scope
name	string	query	False	Filter by name
retention.count	integer	query	False	Filter by retention.count
retention.preserve	boolean	query	False	Filter by retention.preserve <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
retention.label	string	query	False	Filter by retention.label
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.warn	integer	query	False	Filter by retention.warn <ul style="list-style-type: none"> <li>• Introduced in: 9.13</li> </ul>
retention.period	string	query	False	Filter by retention.period <ul style="list-style-type: none"> <li>• Introduced in: 9.11</li> </ul>
retention.prefix	string	query	False	Filter by retention.prefix
sync_common_snapshot_schedule.name	string	query	False	Filter by sync_common_snapshot_schedule.name

Name	Type	In	Required	Description
sync_common_snapshot_schedule.uuid	string	query	False	Filter by sync_common_snapshot_schedule.uuid
identity_preservation	string	query	False	Filter by identity_preservation
throttle	integer	query	False	Filter by throttle
sync_type	string	query	False	Filter by sync_type
type	string	query	False	Filter by type
rpo	integer	query	False	Filter by rpo <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
create_snapshot_on_source	boolean	query	False	Filter by create_snapshot_on_source <ul style="list-style-type: none"> <li>• Introduced in: 9.11</li> </ul>
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. <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>

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"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "comment": "string",
      "copy_all_source_snapshots": 1,
      "copy_latest_source_snapshot": 1,
      "create_snapshot_on_source": "",
      "identity_preservation": "string",
      "name": "Asynchronous",
      "retention": [
        {
          "count": 7,
          "creation_schedule": {
            "_links": {
              "self": {
                "href": "/api/resourcelink"
              }
            },
            "name": "weekly",
            "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
          },
          "label": "hourly",
          "period": "P30D",
          "prefix": "string",
          "preserve": 1,
          "warn": 4
        }
      ],
      "rpo": 0,
      "scope": "string",
    }
  ]
}
```



```

"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": "string",
"throttle": 0,
"transfer_schedule": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "weekly",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"type": "string",
"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	<a href="#">returned_error</a>	

### 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. Maximum value will differ based on type of relationship and scaling factor.
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.

Name	Type	Description
label	string	Snapshot copy label
period	string	Specifies the duration for which the Snapshot copies are locked. The retention period value represents a duration and must be in the ISO-8601 duration format. Years, months, days, hours, minutes, and seconds are represented as "P<num>Y", "P<num>M", "P<num>D", "PT<num>H", "PT<num>M" and "PT<num>S". Value "infinite" is also a valid input for Flexvol volumes and FlexGroup volumes. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. The range of supported retention period values is between 1 second to infinite.</num></num></num></num></num></num>
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.
preserve	boolean	Specifies the behavior when the Snapshot copy retention count is reached on the SnapMirror destination for the rule. The default value is false, which means that the oldest Snapshot copy is deleted to make room for new ones but only if the number of Snapshot copies has exceeded the retention count specified in the 'count' property. When set to true and where the Snapshot copies have reached the retention count, an incremental SnapMirror transfer will fail or if the rule has a schedule, Snapshot copies will be no longer be created on the SnapMirror destination.

Name	Type	Description
warn	integer	Specifies the warning threshold count for the rule. The default value is zero. When set to a value greater than zero, an event is generated after the number of Snapshot copies (for the particular rule) retained on a SnapMirror destination reaches the specified warning limit. The preserve property for the rule must be true in order to set the warn property to a value greater than zero.

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

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	Type	Description
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 a FlexVol volume, 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 a FlexVol volume as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync", "automated\_failover" or "automated\_failover\_duplex". If the "sync\_type" is "sync", 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", a write success is returned to the client after writing the data to both source and destination endpoints. If the "sync\_type" is "automated\_failover", the policy can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides asymmetric active active access to the two storage copies. If the "sync\_type" is "automated\_failover\_duplex", the policy can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides symmetric active active access to the two storage copies. Use the "sync" policy with "sync\_type" as "automated\_failover" or "automated\_failover\_duplex" to establish SnapMirror relationships for business continuity use cases. SnapMirror relationships with policy types as "sync" and "sync\_type" as "automated\_failover" or "automated\_failover\_duplex" can be monitored by the Mediator, if configured. If the source Consistency Group endpoint is not reachable, the Mediator might trigger a failover to the destination consistency group endpoint. A policy type of "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
_links	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies that all the source Snapshot copies (including the one created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.

Name	Type	Description
copy_latest_source_snapshot	boolean	Specifies that the latest source Snapshot copy (created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
create_snapshot_on_source	boolean	Specifies whether a new Snapshot copy should be created on the source at the beginning of an update or resync operation. This is applicable only to async policies. Property can only be set to 'false'.
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 of the policy.
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	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
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	Unique identifier of the SnapMirror policy.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### returned\_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 notes

- 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 properties "copy\_all\_source\_snapshots", "copy\_latest\_source\_snapshot", and "create\_snapshot\_on\_source" are mutually exclusive.
- The properties "copy\_all\_source\_snapshots", "copy\_latest\_source\_snapshot", and "create\_snapshot\_on\_source" are not applicable for "sync" type policies.
- No "retention" properties can be specified if "copy\_all\_source\_snapshots" or 'copy\_latest\_source\_snapshot' is specified.
- The properties "retention.creation\_schedule" and "retention.prefix" are not applicable for "sync" type policies.
- The property "retention.creation\_schedule" is not applicable for "async" policies with "create\_snapshot\_on\_source" set to "false".
- 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.
- The property "transfer\_schedule" cannot be set to null (no-quotes) during SnapMirror policy POST.
- The properties "retention.label" and "retention.count" must be specified for "async" policies with "create\_snapshot\_on\_source" set to "false".
- The property "retention.warn" is not supported for a policy when the "retention.preserve" property is false.
- The property "retention.warn" value must be less than the property "retention.count" value for a rule in a

policy.

## 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*)
- `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 "async" which replicates latest Snapshot copy

```
POST "/api/snapmirror/policies" '{"name": "newPolicy2", "svm":{"name" : "vs1"}, "type": "async", "copy_latest_source_snapshot": "true"}'
```

Creating a SnapMirror policy of type "async" which does not create Snapshot copies on source

```
POST "/api/snapmirror/policies" '{"name": "newPolicy", "svm":{"name" : "vs1"}, "type": "async", "create_snapshot_on_source": "false", "retention": [{"label": "daily", "count": 7}]}'
```

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" }'
```

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

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

Creating a SnapMirror policy of type "async" with two sets of retention values and retention periods

```
POST "/api/snapmirror/policies" '{"name": "policy_ret", "svm": {"name": "vs1"}, "retention": [{"label": "weekly", "count": "2", "period": "P7D"}, {"label": "daily", "count": "7", "period": "PT3H"}]}'
```

Creating a SnapMirror policy of type "async" with retention value as "infinite"

```
POST "/api/snapmirror/policies" '{"name": "policy_ret", "svm": {"name": "vs1"}, "retention": [{"label": "weekly", "count": "5", "period": "infinite"}]}'
```

Creating a SnapMirror policy of type "async" with properties retention preserve as true and retention warn as 3.

```
POST "/api/snapmirror/policies" '{"name": "policy_ret", "svm": {"name": "vs1"}, "retention": [{"label": "weekly", "count": "5", "preserve": true, "warn": 3}]}'
```

## 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>

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.

Name	Type	Description
copy_all_source_snapshots	boolean	Specifies that all the source Snapshot copies (including the one created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
copy_latest_source_snapshot	boolean	Specifies that the latest source Snapshot copy (created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
create_snapshot_on_source	boolean	Specifies whether a new Snapshot copy should be created on the source at the beginning of an update or resync operation. This is applicable only to async policies. Property can only be set to 'false'.
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 of the policy.
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[snapmirror_policy_rule]	Rules for Snapshot copy retention.

Name	Type	Description
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>	SVM, applies only to SVM-scoped objects.
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	Unique identifier of the SnapMirror policy.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "copy_all_source_snapshots": 1,
  "copy_latest_source_snapshot": 1,
  "create_snapshot_on_source": "",
  "identity_preservation": "string",
  "name": "Asynchronous",
  "retention": [
    {
      "count": 7,
      "creation_schedule": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "weekly",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "label": "hourly",
      "period": "P30D",
      "prefix": "string",
      "preserve": 1,
      "warn": 4
    }
  ],
  "rpo": 0,
  "scope": "string",
  "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": "string",
  "throttle": 0,
  "transfer_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "type": "string",
  "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"
  }
}

```

## Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## Response

Status: 201, Created

## Error

Status: Default

### ONTAP Error Response codes

Error code	Description
-----	-----
6619714	Schedule specified is an interval schedule. SnapMirror does not support interval schedules.
	13304126
Enter a value for "count" in the range indicated in the error message.	
13303850	Invalid input parameter
	13303887
Failed to create SnapMirror policy. Reason: Maximum number of allowed retention rules reached	
13304083	The specified property is not supported because all nodes in the cluster are not capable of supporting this property.
	13304084
Properties specified are mutually exclusive. Provide only one property.	
13304085	The specified property does not support the specified value.
	13304092

Error code	Description
Input value of the retention period property is invalid. For relationships with FlexVol volume or FlexGroup volume destinations, the duration must be in ISO 6801 format or can be infinite. For relationships with object store destinations, only duration values with Y, M or D and supported and must be in the specified range.	
6621045	The property retention.warn is not supported for a policy when the retention.preserve property is false.
13304129	The property retention.warn value must be less than the property retention.count value for a rule in a policy.
13304130	The total retention.count value for all rules in a policy cannot exceed the value indicated in the error message."

Name	Type	Description
error	<a href="#">returned_error</a>	

### 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. Maximum value will differ based on type of relationship and scaling factor.
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
period	string	Specifies the duration for which the Snapshot copies are locked. The retention period value represents a duration and must be in the ISO-8601 duration format. Years, months, days, hours, minutes, and seconds are represented as "P<num>Y", "P<num>M", "P<num>D", "PT<num>H", "PT<num>M" and "PT<num>S". Value "infinite" is also a valid input for Flexvol volumes and FlexGroup volumes. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. The range of supported retention period values is between 1 second to infinite.
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.
preserve	boolean	Specifies the behavior when the Snapshot copy retention count is reached on the SnapMirror destination for the rule. The default value is false, which means that the oldest Snapshot copy is deleted to make room for new ones but only if the number of Snapshot copies has exceeded the retention count specified in the 'count' property. When set to true and where the Snapshot copies have reached the retention count, an incremental SnapMirror transfer will fail or if the rule has a schedule, Snapshot copies will be no longer be created on the SnapMirror destination.

Name	Type	Description
warn	integer	Specifies the warning threshold count for the rule. The default value is zero. When set to a value greater than zero, an event is generated after the number of Snapshot copies (for the particular rule) retained on a SnapMirror destination reaches the specified warning limit. The preserve property for the rule must be true in order to set the warn property to a value greater than zero.

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

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	Type	Description
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 a FlexVol volume, 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 a FlexVol volume as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync", "automated\_failover" or "automated\_failover\_duplex". If the "sync\_type" is "sync", 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", a write success is returned to the client after writing the data to both source and destination endpoints. If the "sync\_type" is "automated\_failover", the policy can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides asymmetric active active access to the two storage copies. If the "sync\_type" is "automated\_failover\_duplex", the policy can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides symmetric active active access to the two storage copies. Use the "sync" policy with "sync\_type" as "automated\_failover" or "automated\_failover\_duplex" to establish SnapMirror relationships for business continuity use cases. SnapMirror relationships with policy types as "sync" and "sync\_type" as "automated\_failover" or "automated\_failover\_duplex" can be monitored by the Mediator, if configured. If the source Consistency Group endpoint is not reachable, the Mediator might trigger a failover to the destination consistency group endpoint. A policy type of "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
_links	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies that all the source Snapshot copies (including the one created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.

Name	Type	Description
copy_latest_source_snapshot	boolean	Specifies that the latest source Snapshot copy (created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
create_snapshot_on_source	boolean	Specifies whether a new Snapshot copy should be created on the source at the beginning of an update or resync operation. This is applicable only to async policies. Property can only be set to 'false'.
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 of the policy.
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	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
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	Unique identifier of the SnapMirror policy.

#### 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

#### returned\_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	SnapMirror 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: 200, Ok

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

## Example response

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

## Response

Status: 202, Accepted

## Error

Status: Default, Error

Name	Type	Description
error	<a href="#">returned_error</a>	

## 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

returned\_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	SnapMirror policy UUID.
fields	array[string]	query	False	Specify the fields to return.

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies that all the source Snapshot copies (including the one created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.

Name	Type	Description
copy_latest_source_snapshot	boolean	Specifies that the latest source Snapshot copy (created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
create_snapshot_on_source	boolean	Specifies whether a new Snapshot copy should be created on the source at the beginning of an update or resync operation. This is applicable only to async policies. Property can only be set to 'false'.
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 of the policy.
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>	SVM, applies only to SVM-scoped objects.

Name	Type	Description
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	Unique identifier of the SnapMirror policy.



## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "copy_all_source_snapshots": 1,
  "copy_latest_source_snapshot": 1,
  "create_snapshot_on_source": "",
  "identity_preservation": "string",
  "name": "Asynchronous",
  "retention": [
    {
      "count": 7,
      "creation_schedule": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "weekly",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "label": "hourly",
      "period": "P30D",
      "prefix": "string",
      "preserve": 1,
      "warn": 4
    }
  ],
  "rpo": 0,
  "scope": "string",
  "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": "string",
  "throttle": 0,
  "transfer_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "type": "string",
  "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	<a href="#">returned_error</a>	

### 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. Maximum value will differ based on type of relationship and scaling factor.
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
period	string	Specifies the duration for which the Snapshot copies are locked. The retention period value represents a duration and must be in the ISO-8601 duration format. Years, months, days, hours, minutes, and seconds are represented as "P<num>Y", "P<num>M", "P<num>D", "PT<num>H", "PT<num>M" and "PT<num>S". Value "infinite" is also a valid input for Flexvol volumes and FlexGroup volumes. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. The range of supported retention period values is between 1 second to infinite.
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.
preserve	boolean	Specifies the behavior when the Snapshot copy retention count is reached on the SnapMirror destination for the rule. The default value is false, which means that the oldest Snapshot copy is deleted to make room for new ones but only if the number of Snapshot copies has exceeded the retention count specified in the 'count' property. When set to true and where the Snapshot copies have reached the retention count, an incremental SnapMirror transfer will fail or if the rule has a schedule, Snapshot copies will be no longer be created on the SnapMirror destination.

Name	Type	Description
warn	integer	Specifies the warning threshold count for the rule. The default value is zero. When set to a value greater than zero, an event is generated after the number of Snapshot copies (for the particular rule) retained on a SnapMirror destination reaches the specified warning limit. The preserve property for the rule must be true in order to set the warn property to a value greater than zero.

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

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	Type	Description
name	string	Job schedule name
uuid	string	Job schedule UUID

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_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.

## Update the SnapMirror policy

PATCH /snapmirror/policies/{uuid}

**Introduced In:** 9.6

Updates the SnapMirror policy.

### Important notes

- 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", but cannot be increased from "exclude\_network\_and\_protocol\_config" to "exclude\_network\_config" to "full". The threshold value of the "identity\_preservation" cannot be changed to

"exclude\_network\_and\_protocol\_config" for IDP SVMDR.

- The policy properties "copy\_all\_source\_snapshots", "copy\_latest\_source\_snapshot", and "create\_snapshot\_on\_source" cannot be modified.
- No "retention" properties can be modified if the "copy\_all\_source\_snapshots" or "copy\_latest\_source\_snapshot" property is present in the policy.
- Replacing or deleting all retention rules of a policy that has the "create\_snapshot\_on\_source" property set to false in a single API call is not supported.
- Modifying the property "retention.label" for all retention rules of a policy that has the "create\_snapshot\_on\_source" property set to false in a single API call is not supported.
- To remove a transfer\_schedule on a SnapMirror policy set the "transfer\_schedule" to null (no-quotes) during SnapMirror policy PATCH.

## 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"}
```

Removing the SnapMirror transfer\_schedule for a SnapMirror policy. Transfer\_schedule can be specified as UUID or name or both with the value set to null (no-quotes).

```
PATCH "/api/snapmirror/policies/98bb2608-fc60-11e8-aa13-005056a707ff/"
'{"transfer_schedule":{"uuid":null, "name":null}}'
```

Updating the "retention" property to have retention.preserve and retention.warn for existing rule.

```
PATCH "/api/snapmirror/policies/fe65686d-00dc-11e9-b5fb-0050568e3f83"
'{"retention": [{ "label": "oldLabel1", "count": 3, "preserve": true,
"warn": 2}]}'
```

## Learn more

- [DOC /snapmirror/policies](#)

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	SnapMirror 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.

Name	Type	Description
copy_all_source_snapshots	boolean	Specifies that all the source Snapshot copies (including the one created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
copy_latest_source_snapshot	boolean	Specifies that the latest source Snapshot copy (created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
create_snapshot_on_source	boolean	Specifies whether a new Snapshot copy should be created on the source at the beginning of an update or resync operation. This is applicable only to async policies. Property can only be set to 'false'.
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 of the policy.
network_compression_enabled	boolean	Specifies whether network compression is enabled for transfers. This is applicable only to the policies of type "async".
retention	array[snapmirror_policy_rule]	Rules for Snapshot copy retention.

Name	Type	Description
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>	SVM, applies only to SVM-scoped objects.
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	Unique identifier of the SnapMirror policy.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "copy_all_source_snapshots": 1,
  "copy_latest_source_snapshot": 1,
  "create_snapshot_on_source": "",
  "identity_preservation": "string",
  "name": "Asynchronous",
  "retention": [
    {
      "count": 7,
      "creation_schedule": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "weekly",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "label": "hourly",
      "period": "P30D",
      "prefix": "string",
      "preserve": 1,
      "warn": 4
    }
  ],
  "rpo": 0,
  "scope": "string",
  "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": "string",
  "throttle": 0,
  "transfer_schedule": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "type": "string",
  "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}

```

## Response

Status: 200, Ok

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

## Example response

```

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

```

## Response

Status: 202, Accepted

## 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
	13304050
Retention cannot be empty for a SnapMirror policy with 'create_snapshot_on_source' set to false.	
13304092	Input value of the retention period property is invalid. For relationships with FlexVol volume or FlexGroup volume destinations, the duration must be in ISO 6801 format or can be infinite. For relationships with object store destinations, only duration values with Y, M or D and supported and must be in the specified range.
	6621045
The property retention.warn is not supported for a policy when the retention.preserve property is false.	
13304129	The property retention.warn value must be less than the property retention.count value for a rule in a policy.
	13304126

Error code	Description
Enter a value for "count" in the range indicated in the error message.	
13304130	The total retention.count value for all rules in a policy cannot exceed the value indicated in the error message."

Name	Type	Description
error	<a href="#">returned_error</a>	

### 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. Maximum value will differ based on type of relationship and scaling factor.
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
period	string	Specifies the duration for which the Snapshot copies are locked. The retention period value represents a duration and must be in the ISO-8601 duration format. Years, months, days, hours, minutes, and seconds are represented as "P<num>Y", "P<num>M", "P<num>D", "PT<num>H", "PT<num>M" and "PT<num>S". Value "infinite" is also a valid input for Flexvol volumes and FlexGroup volumes. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. The range of supported retention period values is between 1 second to infinite.</num></num></num></num></num></num>
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.
preserve	boolean	Specifies the behavior when the Snapshot copy retention count is reached on the SnapMirror destination for the rule. The default value is false, which means that the oldest Snapshot copy is deleted to make room for new ones but only if the number of Snapshot copies has exceeded the retention count specified in the 'count' property. When set to true and where the Snapshot copies have reached the retention count, an incremental SnapMirror transfer will fail or if the rule has a schedule, Snapshot copies will be no longer be created on the SnapMirror destination.

Name	Type	Description
warn	integer	Specifies the warning threshold count for the rule. The default value is zero. When set to a value greater than zero, an event is generated after the number of Snapshot copies (for the particular rule) retained on a SnapMirror destination reaches the specified warning limit. The preserve property for the rule must be true in order to set the warn property to a value greater than zero.

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

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	Type	Description
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 a FlexVol volume, 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 a FlexVol volume as the endpoint. The policy type "sync" can have a "sync\_type" of either "sync", "strict\_sync", "automated\_failover" or "automated\_failover\_duplex". If the "sync\_type" is "sync", 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", a write success is returned to the client after writing the data to both source and destination endpoints. If the "sync\_type" is "automated\_failover", the policy can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides asymmetric active active access to the two storage copies. If the "sync\_type" is "automated\_failover\_duplex", the policy can be associated with a SnapMirror relationship that has a consistency group as the endpoint and provides symmetric active active access to the two storage copies. Use the "sync" policy with "sync\_type" as "automated\_failover" or "automated\_failover\_duplex" to establish SnapMirror relationships for business continuity use cases. SnapMirror relationships with policy types as "sync" and "sync\_type" as "automated\_failover" or "automated\_failover\_duplex" can be monitored by the Mediator, if configured. If the source Consistency Group endpoint is not reachable, the Mediator might trigger a failover to the destination consistency group endpoint. A policy type of "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
_links	<a href="#">_links</a>	
comment	string	Comment associated with the policy.
copy_all_source_snapshots	boolean	Specifies that all the source Snapshot copies (including the one created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.

Name	Type	Description
copy_latest_source_snapshot	boolean	Specifies that the latest source Snapshot copy (created by SnapMirror before the transfer begins) should be copied to the destination on a transfer. "Retention" properties cannot be specified along with this property. This is applicable only to async policies. Property can only be set to 'true'.
create_snapshot_on_source	boolean	Specifies whether a new Snapshot copy should be created on the source at the beginning of an update or resync operation. This is applicable only to async policies. Property can only be set to 'false'.
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 of the policy.
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	SVM, applies only to SVM-scoped objects.
sync_common_snapshot_schedule	sync_common_snapshot_schedule	Schedule used to create common Snapshot copies for synchronous relationships.
sync_type	string	
throttle	integer	Throttle in KB/s. Default to unlimited.
transfer_schedule	transfer_schedule	The schedule used to update asynchronous relationships. Only cron schedules are supported for SnapMirror.
type	string	
uuid	string	Unique identifier of the SnapMirror policy.

job\_link

Name	Type	Description
_links	_links	
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

returned\_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.