



# **Manage SnapMirror relationship transfers**

ONTAP 9.15.1 REST API reference

NetApp  
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# Manage SnapMirror relationship transfers

## SnapMirror relationships relationship.uuid transfers endpoint overview

### Overview

This API is used to manage transfers on an existing SnapMirror relationship.

You can initiate SnapMirror operations such as "initialize", "update", "restore-transfer", and "abort" using this API on asynchronous SnapMirror relationship. On a synchronous SnapMirror relationship, you can initiate SnapMirror "initialize" operation. The GET for this API reports the status of both active transfers and transfers that have terminated within the past 24 hours. For object store relationships only information on active transfers is reported. For the restore relationships, the POST on transfers API triggers "restore-transfer". Successful completion of "restore" also deletes the restore relationship. If the "restore" fails, DELETE on relationships must be called to delete the restore relationship.

A transfer on an asynchronous SnapMirror relationship with Application Consistency Group endpoints expands the destination Application Consistency Group endpoint if the source Application Consistency Group endpoint is already expanded.

## Retrieve ongoing SnapMirror transfers for a relationship

GET /snapmirror/relationships/{relationship.uuid}/transfers

**Introduced In:** 9.6

Retrieves the list of ongoing SnapMirror transfers for the specified relationship.

### Related ONTAP commands

- `snapmirror show`

### Example

```
GET "/api/snapmirror/relationships/293baa53-e63d-11e8-bff1-005056a793dd/transfers"
```

### Learn more

- [DOC /snapmirror/relationships/{relationship.uuid}/transfers](#)

### Parameters

Name	Type	In	Required	Description
relationship.uuid	string	path	True	SnapMirror relationship UUID
last_updated_time	string	query	False	Filter by last_updated_time  • Introduced in: 9.15
checkpoint_size	integer	query	False	Filter by checkpoint_size
total_duration	string	query	False	Filter by total_duration  • Introduced in: 9.10
end_time	string	query	False	Filter by end_time  • Introduced in: 9.10
relationship.destination.svm.uuid	string	query	False	Filter by relationship.destination.svm.uuid
relationship.destination.svm.name	string	query	False	Filter by relationship.destination.svm.name
relationship.destination.path	string	query	False	Filter by relationship.destination.path
relationship.destination.consistency_group_volumes.name	string	query	False	Filter by relationship.destination.consistency_group_volumes.name  • Introduced in: 9.8

Name	Type	In	Required	Description
relationship.destination.cluster.name	string	query	False	Filter by relationship.destination.cluster.name  • Introduced in: 9.7
relationship.destination.uuid	string	query	False	Filter by relationship.destination.uuid  • Introduced in: 9.7
relationship.restore	boolean	query	False	Filter by relationship.restore
state	string	query	False	Filter by state
network_compression_ratio	string	query	False	Filter by network_compression_ratio  • Introduced in: 9.13
throttle	integer	query	False	Filter by throttle  • Introduced in: 9.9
on_demand_attrs	string	query	False	Filter by on_demand_attrs  • Introduced in: 9.13
uuid	string	query	False	Filter by uuid
error_info.message	string	query	False	Filter by error_info.message  • Introduced in: 9.10

Name	Type	In	Required	Description
error_info.code	integer	query	False	Filter by error_info.code <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
snapshot	string	query	False	Filter by snapshot
bytes_transferred	integer	query	False	Filter by bytes_transferred
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>
return_timeout	integer	query	False	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. <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_transfer</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "archive_retrieval_priority": "high",
      "bytes_transferred": 0,
      "checkpoint_size": 0,
      "end_time": "2020-12-02 21:36:19 -0500",
      "error_info": {
        "code": 6620046,
        "message": "Transfer aborted"
      },
      "files": [
        {
          "destination_path": "/dirb/file2",
          "source_path": "/dira/file1"
        }
      ],
      "last_updated_time": "2023-09-15 19:58:39 -0400",
      "network_compression_ratio": 61,
      "on_demand_attrs": "read_write_with_user_data_pull",
      "options": [
        {
          "overwrite": 1,
          "preserve_dedup_savings": 1
        }
      ],
      "relationship": {
        "destination": {
          "cluster": {
            "_links": {
```



```

        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "cluster1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"consistency_group_volumes": [
    {
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
    }
],
"ipspace": "Default",
"path": "svm1:volume1",
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
},
"uuid": "d2d7ceea-ab52-11e8-855e-00505682a4c7"
},
"snapshot": "string",
"snapshot_retention_period": "P30D",
"source_snapshot": "string",
"source_snapshot_uuid": "string",
"state": "string",
"throttle": 0,
"total_duration": "PT28M41S",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}
]
}

```

## 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
next	<a href="#">href</a>	
self	<a href="#">href</a>	

\_links

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

error\_info

Error information for the transfer.

Name	Type	Description
code	integer	Error code
message	string	Error message

files

Specifies a file or LUN consisting of a `source_path` and an optional `destination_path`. If not specified, the `destination_path` is the same as the `source_path`. File restore is not supported if the `source_path` or `destination_path` contains commas in its directory or file name.

Name	Type	Description
<code>destination_path</code>	string	
<code>source_path</code>	string	

options

Name	Type	Description
overwrite	boolean	Specifies whether or not to overwrite the directory during restore from an object store to a FlexVol volume. This property is only supported for restoring a directory from an object store. Valid values are 'true' or 'false'. This property is not supported for full volume restores from an object store.
preserve_dedup_savings	boolean	Specifies whether or not deduplication savings of a backed up Snapshot copy will be preserved during restore from an object store. This parameter is only supported for restoring an entire volume from an object store. Valid values are 'true' or 'false'. This parameter enables cost-optimized restore, although it may affect the duration of the restore operation. This parameter is not supported for file restores from an object store.

#### cluster

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

#### consistency\_group\_volumes

Name	Type	Description
name	string	The name of the volume.

Name	Type	Description
uuid	string	<p>Unique identifier of the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• x-ntap-createOnly: true</li> <li>• Introduced in: 9.8</li> <li>• x-nullable: true</li> </ul>

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
<a href="#">_links</a>	<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.

snapmirror\_endpoint

Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint.

Name	Type	Description
cluster	<a href="#">cluster</a>	
consistency_group_volumes	array[ <a href="#">consistency_group_volumes</a> ]	Mandatory property for a Consistency Group endpoint. Specifies the list of FlexVol volumes for a Consistency Group.

Name	Type	Description
ipspace	string	Optional property to specify the IPspace of the SVM.
path	string	<p>ONTAP FlexVol/FlexGroup - svm1:volume1            ONTAP SVM - svm1: ONTAP Consistency Group - svm1:/cg/cg_name            ONTAP S3 - svm1:/bucket/bucket1            NON-ONTAP - objstore1:/objstore</p> <ul style="list-style-type: none"> <li>• example: svm1:volume1</li> <li>• Introduced in: 9.6</li> <li>• x-nullable: true</li> </ul>
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
uuid	string	Unique identifier of the endpoint. Applicable for object store SnapMirror relationships only.

relationship

Name	Type	Description
destination	<a href="#">snapmirror_endpoint</a>	Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint. <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
restore	boolean	Is the relationship for restore?
uuid	string	Unique identifier of the SnapMirror relationship.

snapmirror\_transfer

SnapMirror transfer information

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

Name	Type	Description
archive_retrieval_priority	string	This is supported for transfer of restore relationship only. Priority level at which objects are restored from the archival storage. The value can be high, standard or low. The cloud provider's lowest priority will be used as the default. It is only supported for object store SnapMirror relationships. If the objects were not archived, the property will be ignored.
bytes_transferred	integer	Bytes transferred
checkpoint_size	integer	Amount of data transferred in bytes as recorded in the restart checkpoint.
end_time	string	End time of the transfer.
error_info	<a href="#">error_info</a>	Error information for the transfer.
files	array[ <a href="#">files</a> ]	This is supported for transfer of restore relationship only. This specifies the list of files or LUNs to be restored. Can contain up to eight files or LUNs.
last_updated_time	string	Last updated time of the bytes transferred in an active transfer.
network_compression_ratio	string	Specifies the compression ratio achieved for the data sent over the wire with network compression enabled. This property is only valid for active transfers.



Name	Type	Description
on_demand_attrs	string	Specifies whether or not an on-demand restore is being carried out. This is only supported for the transfer of restore relationships for entire volumes from the object store. A value for read_write_with_user_data_pull should be provided to start an on-demand restore. A file restore from the object store does not support this option.
options	array[options]	Options for snapmirror transfer.
relationship	relationship	
snapshot	string	Name of Snapshot copy being transferred.

Name	Type	Description
snapshot_retention_period	string	<p>Specifies the duration for which the Snapshot copy specified in the 'source_snapshot' property is locked in the object store. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, or days. A period specified for years, months, or days is represented in the ISO-8601 format as "P&lt;num&gt;Y", "P&lt;num&gt;M", or "P&lt;num&gt;D" respectively. For example, "P10Y" represents a duration of 10 years. The period string must contain only a single time element, that is, either years, months, or days. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. Years, if specified, must be less than or equal to 100. Months, if specified, must be less than or equal to 1200. Days, if specified, must be between and including 30 and 36500. This property is valid only if the 'source_snapshot' property is specified and when the property 'snapshot_lock_mode' in the policy associated with the SnapMirror relationship is set to enterprise or compliance. If this property is not specified and the source Snapshot copy being transferred does not match a policy rule, then a default retention period of "P30D" is set. This property is supported only for non-restore transfers and for object store SnapMirror relationships.</p>
source_snapshot	string	<p>Specifies the Snapshot copy on the source to be transferred to the destination.</p>

Name	Type	Description
source_snapshot_uuid	string	Specifies the Snapshot copy UUID on the object store source to be restored to the destination.
state	string	Status of the transfer. Set PATCH state to "aborted" to abort the transfer. Set PATCH state to "hard_aborted" to abort the transfer and discard the restart checkpoint. To find "queued" transfers refer to relationships GET API.
storage_efficiency_enabled	boolean	This is supported for transfer of restore relationship only. Set this property to "false" to turn off storage efficiency for data transferred over the wire and written to the destination.
throttle	integer	Throttle, in KBs per second. This "throttle" overrides the "throttle" set on the SnapMirror relationship or SnapMirror relationship's policy. If neither of these are set, defaults to 0, which is interpreted as unlimited.
total_duration	string	Elapsed transfer time.
uuid	string	Unique identifier of the SnapMirror transfer.

#### 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

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

## Start a SnapMirror transfer operation

POST /snapmirror/relationships/{relationship.uuid}/transfers

**Introduced In:** 9.6

Starts a SnapMirror transfer operation. This API initiates a restore operation if the SnapMirror relationship is of type "restore". Otherwise, it initiates a SnapMirror "initialize" operation or "update" operation based on the current SnapMirror state.

### Default property values

- `storage_efficiency_enabled` - *true*

### Related ONTAP commands

- `snapmirror update`
- `snapmirror initialize`
- `snapmirror restore`

### Important notes

- The property "archive\_retrieval\_priority" is only applicable for object store SnapMirror relationships of type "restore".
- The property "options.preserve\_dedup\_savings" is only applicable for object store SnapMirror relationships of type "restore". This property is only supported for restoring an entire volume from an object store.
- The property "options.overwrite" is only applicable for object store SnapMirror relationships of type "restore". This property is only supported for restoring a directory from an object store to a FlexVol volume. Upon restart of an incomplete restore transfer the value of the "options.overwrite" property should match that of the previous request.
- The property "source\_snapshot\_uuid" is only applicable for object store SnapMirror relationships of type "restore".

### Examples

The following examples show how to perform SnapMirror "initialize", "update", and "restore" operations.

Perform SnapMirror initialize or update

```
POST "/api/snapmirror/relationships/e4e7e130-0279-11e9-b566-0050568e9909/transfers" '{}'
```

Perform SnapMirror initialize, update or restore with throttle value set

```
POST "/api/snapmirror/relationships/e4e7e130-0279-11e9-b566-0050568e9909/transfers" '{"throttle":"100"}'
```

Perform SnapMirror restore transfer of a file

```
POST "/api/snapmirror/relationships/c8c62a90-0fef-11e9-b09e-0050568e7067/transfers" '{"source_snapshot": "src", "files":[{"source_path": "/a1.txt.0", "destination_path": "/a1-renamed.txt.0"}]}'
```

Performing a SnapMirror initialize or update using a particular Snapshot copy.

```
POST "/api/snapmirror/relationships/e4e7e130-0279-11e9-b566-0050568e9909/transfers" '{"source_snapshot":"snap1"}'
```

Performing a SnapMirror initialize or update of an object store SnapMirror relationship and locking Snapshot copy 'snap1' for a period of 40 months.

```
POST "/api/snapmirror/relationships/e4e7e130-0279-11e9-b566-0050568e9909/transfers" '{"source_snapshot":"snap1", "snapshot_retention_period":"P40M"}]}'
```

Performing a SnapMirror restore transfer of a file with inode number 96 from an object store.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot": "snap1", "files":[{"source_path": "96", "destination_path": "/f1"}]}'
```

Performing a SnapMirror restore transfer of a whole volume from an object store using a snapshot copy name.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot": "snap1"}'
```

Performing a SnapMirror restore transfer of a whole volume from an object store using a snapshot copy uuid.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot_uuid": "bded03c7-c71b-408e-9e1a-971eb156a2da"}'
```

Performing a SnapMirror restore transfer of a whole volume from an object store with `archive_retrieval_priority` high.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot": "snap1", "archive_retrieval_priority": "high"}'
```

Performing a SnapMirror on-demand restore transfer of a whole volume from an object store.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot": "snap1", "on_demand_attrs": "read_write_with_user_data_pull"}'
```

Performing a SnapMirror restore transfer of a whole volume from an object store with deuplication savings preserved.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot": "snap1", "options.preserve_dedup_savings": "true"}'
```

Performing a SnapMirror restore transfer of a directory from an object store with overwrite.

```
POST "/api/snapmirror/relationships/5aadf886-2039-11ea-b47a-005056a778b7/transfers" '{"source_snapshot": "snap1", "files": [{"source_path": "96", "destination_path": "/dir1"}], "options.overwrite": "true"}'
```

## Learn more

- [DOC /snapmirror/relationships/{relationship.uuid}/transfers](#)

## Parameters

Name	Type	In	Required	Description
relationship.uuid	string	path	True	SnapMirror relationship UUID

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
_links	<a href="#">_links</a>	

Name	Type	Description
archive_retrieval_priority	string	This is supported for transfer of restore relationship only. Priority level at which objects are restored from the archival storage. The value can be high, standard or low. The cloud provider's lowest priority will be used as the default. It is only supported for object store SnapMirror relationships. If the objects were not archived, the property will be ignored.
bytes_transferred	integer	Bytes transferred
checkpoint_size	integer	Amount of data transferred in bytes as recorded in the restart checkpoint.
end_time	string	End time of the transfer.
error_info	<a href="#">error_info</a>	Error information for the transfer.
files	array[ <a href="#">files</a> ]	This is supported for transfer of restore relationship only. This specifies the list of files or LUNs to be restored. Can contain up to eight files or LUNs.
last_updated_time	string	Last updated time of the bytes transferred in an active transfer.
network_compression_ratio	string	Specifies the compression ratio achieved for the data sent over the wire with network compression enabled. This property is only valid for active transfers.
on_demand_attrs	string	Specifies whether or not an on-demand restore is being carried out. This is only supported for the transfer of restore relationships for entire volumes from the object store. A value for <code>read_write_with_user_data_pull</code> should be provided to start an on-demand restore. A file restore from the object store does not support this option.



Name	Type	Description
options	array[options]	Options for snapmirror transfer.
relationship	relationship	
snapshot	string	Name of Snapshot copy being transferred.
snapshot_retention_period	string	<p>Specifies the duration for which the Snapshot copy specified in the 'source_snapshot' property is locked in the object store. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, or days. A period specified for years, months, or days is represented in the ISO-8601 format as "P&lt;num&gt;Y", "P&lt;num&gt;M", or "P&lt;num&gt;D" respectively. For example, "P10Y" represents a duration of 10 years. The period string must contain only a single time element, that is, either years, months, or days. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. Years, if specified, must be less than or equal to 100. Months, if specified, must be less than or equal to 1200. Days, if specified, must be between and including 30 and 36500. This property is valid only if the 'source_snapshot' property is specified and when the property 'snapshot_lock_mode' in the policy associated with the SnapMirror relationship is set to enterprise or compliance. If this property is not specified and the source Snapshot copy being transferred does not match a policy rule, then a default retention period of "P30D" is set. This property is supported only for non-restore transfers and for object store SnapMirror relationships.</p>

Name	Type	Description
source_snapshot	string	Specifies the Snapshot copy on the source to be transferred to the destination.
source_snapshot_uuid	string	Specifies the Snapshot copy UUID on the object store source to be restored to the destination.
state	string	Status of the transfer. Set PATCH state to "aborted" to abort the transfer. Set PATCH state to "hard_aborted" to abort the transfer and discard the restart checkpoint. To find "queued" transfers refer to relationships GET API.
storage_efficiency_enabled	boolean	This is supported for transfer of restore relationship only. Set this property to "false" to turn off storage efficiency for data transferred over the wire and written to the destination.
throttle	integer	Throttle, in KBs per second. This "throttle" overrides the "throttle" set on the SnapMirror relationship or SnapMirror relationship's policy. If neither of these are set, defaults to 0, which is interpreted as unlimited.
total_duration	string	Elapsed transfer time.
uuid	string	Unique identifier of the SnapMirror transfer.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "archive_retrieval_priority": "high",
  "bytes_transferred": 0,
  "checkpoint_size": 0,
  "end_time": "2020-12-02 21:36:19 -0500",
  "error_info": {
    "code": 6620046,
    "message": "Transfer aborted"
  },
  "files": [
    {
      "destination_path": "/dirb/file2",
      "source_path": "/dira/file1"
    }
  ],
  "last_updated_time": "2023-09-15 19:58:39 -0400",
  "network_compression_ratio": 61,
  "on_demand_attrs": "read_write_with_user_data_pull",
  "options": [
    {
      "overwrite": 1,
      "preserve_dedup_savings": 1
    }
  ],
  "relationship": {
    "destination": {
      "cluster": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        }
      },
      "name": "cluster1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "consistency_group_volumes": [
      {
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
      }
    ]
  }
}
```

```

    }
  ],
  "ipspace": "Default",
  "path": "svm1:volume1",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
},
"uuid": "d2d7ceea-ab52-11e8-855e-00505682a4c7"
},
"snapshot": "string",
"snapshot_retention_period": "P30D",
"source_snapshot": "string",
"source_snapshot_uuid": "string",
"state": "string",
"throttle": 0,
"total_duration": "PT28M41S",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}

```

## Response

Status: 201, Created

## Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## Error

Status: Default

ONTAP Error Response codes

Error code	Description
13303845	Restore operation failed
13303812	Initialize operation failed
13303844	Update operation failed
13303846	Empty source path file list
13303847	Invalid property
13304040	Throttle not supported for update of Synchronous SnapMirror relationships
6620237	SnapMirror relationship database write failed
6620238	SnapMirror relationship database read failed
13304026	API license token is required for this operation.
13304027	Invalid API license token specified.
6621865	Unexpected input value.
13304047	An additional property is required with the specified policy property.
13303872	Property specified requires an effective cluster version of ONTAP specified or later.
13304093	Property specified is not supported for specified relationships.
13304094	The property snapshot_retention_period is not supported for this relationship because the policy associated with it does not have the snapshot_lock_mode set to compliance or enterprise.
13304134	The overwrite property specified does not match the value specified in the previous request.
6684973	The Snapshot copy does not exist.

6621810	Failed to get object store endpoint information.
---------	--

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>	

error\_info

Error information for the transfer.

Name	Type	Description
code	integer	Error code
message	string	Error message

files

Specifies a file or LUN consisting of a `source_path` and an optional `destination_path`. If not specified, the `destination_path` is the same as the `source_path`. File restore is not supported if the `source_path` or `destination_path` contains commas in its directory or file name.

Name	Type	Description
<code>destination_path</code>	string	
<code>source_path</code>	string	

options

Name	Type	Description
<code>overwrite</code>	boolean	Specifies whether or not to overwrite the directory during restore from an object store to a FlexVol volume. This property is only supported for restoring a directory from an object store. Valid values are 'true' or 'false'. This property is not supported for full volume restores from an object store.

Name	Type	Description
preserve_dedup_savings	boolean	Specifies whether or not deduplication savings of a backed up Snapshot copy will be preserved during restore from an object store. This parameter is only supported for restoring an entire volume from an object store. Valid values are 'true' or 'false'. This parameter enables cost-optimized restore, although it may affect the duration of the restore operation. This parameter is not supported for file restores from an object store.

#### cluster

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

#### consistency\_group\_volumes

Name	Type	Description
name	string	The name of the volume.
uuid	string	<p>Unique identifier of the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• x-ntap-createOnly: true</li> <li>• Introduced in: 9.8</li> <li>• x-nullable: true</li> </ul>

#### svm

SVM, applies only to SVM-scoped objects.

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



Name	Type	Description
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.

#### snapmirror\_endpoint

Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint.

Name	Type	Description
cluster	<a href="#">cluster</a>	
consistency_group_volumes	array[ <a href="#">consistency_group_volumes</a> ]	Mandatory property for a Consistency Group endpoint. Specifies the list of FlexVol volumes for a Consistency Group.
ipspace	string	Optional property to specify the IPspace of the SVM.
path	string	ONTAP FlexVol/FlexGroup - svm1:volume1 ONTAP SVM - svm1: ONTAP Consistency Group - svm1:/cg/cg_name ONTAP S3 - svm1:/bucket/bucket1 NON-ONTAP - objstore1:/objstore <ul style="list-style-type: none"> <li>• example: svm1:volume1</li> <li>• Introduced in: 9.6</li> <li>• x-nullable: true</li> </ul>
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.

Name	Type	Description
uuid	string	Unique identifier of the endpoint. Applicable for object store SnapMirror relationships only.

relationship

Name	Type	Description
destination	<a href="#">snapmirror_endpoint</a>	Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint. <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
restore	boolean	Is the relationship for restore?
uuid	string	Unique identifier of the SnapMirror relationship.

snapmirror\_transfer

SnapMirror transfer information

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

Name	Type	Description
archive_retrieval_priority	string	This is supported for transfer of restore relationship only. Priority level at which objects are restored from the archival storage. The value can be high, standard or low. The cloud provider's lowest priority will be used as the default. It is only supported for object store SnapMirror relationships. If the objects were not archived, the property will be ignored.
bytes_transferred	integer	Bytes transferred
checkpoint_size	integer	Amount of data transferred in bytes as recorded in the restart checkpoint.
end_time	string	End time of the transfer.
error_info	<a href="#">error_info</a>	Error information for the transfer.
files	array[ <a href="#">files</a> ]	This is supported for transfer of restore relationship only. This specifies the list of files or LUNs to be restored. Can contain up to eight files or LUNs.
last_updated_time	string	Last updated time of the bytes transferred in an active transfer.
network_compression_ratio	string	Specifies the compression ratio achieved for the data sent over the wire with network compression enabled. This property is only valid for active transfers.

Name	Type	Description
on_demand_attrs	string	Specifies whether or not an on-demand restore is being carried out. This is only supported for the transfer of restore relationships for entire volumes from the object store. A value for read_write_with_user_data_pull should be provided to start an on-demand restore. A file restore from the object store does not support this option.
options	array[options]	Options for snapmirror transfer.
relationship	relationship	
snapshot	string	Name of Snapshot copy being transferred.

Name	Type	Description
snapshot_retention_period	string	<p>Specifies the duration for which the Snapshot copy specified in the 'source_snapshot' property is locked in the object store. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, or days. A period specified for years, months, or days is represented in the ISO-8601 format as "P&lt;num&gt;Y", "P&lt;num&gt;M", or "P&lt;num&gt;D" respectively. For example, "P10Y" represents a duration of 10 years. The period string must contain only a single time element, that is, either years, months, or days. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. Years, if specified, must be less than or equal to 100. Months, if specified, must be less than or equal to 1200. Days, if specified, must be between and including 30 and 36500. This property is valid only if the 'source_snapshot' property is specified and when the property 'snapshot_lock_mode' in the policy associated with the SnapMirror relationship is set to enterprise or compliance. If this property is not specified and the source Snapshot copy being transferred does not match a policy rule, then a default retention period of "P30D" is set. This property is supported only for non-restore transfers and for object store SnapMirror relationships.</p>
source_snapshot	string	<p>Specifies the Snapshot copy on the source to be transferred to the destination.</p>

Name	Type	Description
source_snapshot_uuid	string	Specifies the Snapshot copy UUID on the object store source to be restored to the destination.
state	string	Status of the transfer. Set PATCH state to "aborted" to abort the transfer. Set PATCH state to "hard_aborted" to abort the transfer and discard the restart checkpoint. To find "queued" transfers refer to relationships GET API.
storage_efficiency_enabled	boolean	This is supported for transfer of restore relationship only. Set this property to "false" to turn off storage efficiency for data transferred over the wire and written to the destination.
throttle	integer	Throttle, in KBs per second. This "throttle" overrides the "throttle" set on the SnapMirror relationship or SnapMirror relationship's policy. If neither of these are set, defaults to 0, which is interpreted as unlimited.
total_duration	string	Elapsed transfer time.
uuid	string	Unique identifier of the SnapMirror transfer.

#### 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

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

## Retrieve attributes of an ongoing SnapMirror transfer

GET /snapmirror/relationships/{relationship.uuid}/transfers/{uuid}

Introduced In: 9.6

Retrieves the attributes of a specific ongoing SnapMirror transfer.

### Related ONTAP commands

- `snapmirror show`

### Example

```
GET "/api/snapmirror/relationships/293baa53-e63d-11e8-bff1-005056a793dd/transfers/293baa53-e63d-11e8-bff1-005056a793dd"
```

### Learn more

- [DOC /snapmirror/relationships/{relationship.uuid}/transfers](#)

### Parameters

Name	Type	In	Required	Description
relationship.uuid	string	path	True	SnapMirror relationship UUID
uuid	string	path	True	SnapMirror transfer 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>	
archive_retrieval_priority	string	This is supported for transfer of restore relationship only. Priority level at which objects are restored from the archival storage. The value can be high, standard or low. The cloud provider's lowest priority will be used as the default. It is only supported for object store SnapMirror relationships. If the objects were not archived, the property will be ignored.
bytes_transferred	integer	Bytes transferred
checkpoint_size	integer	Amount of data transferred in bytes as recorded in the restart checkpoint.
end_time	string	End time of the transfer.
error_info	<a href="#">error_info</a>	Error information for the transfer.
files	array[ <a href="#">files</a> ]	This is supported for transfer of restore relationship only. This specifies the list of files or LUNs to be restored. Can contain up to eight files or LUNs.
last_updated_time	string	Last updated time of the bytes transferred in an active transfer.
network_compression_ratio	string	Specifies the compression ratio achieved for the data sent over the wire with network compression enabled. This property is only valid for active transfers.



Name	Type	Description
on_demand_attrs	string	Specifies whether or not an on-demand restore is being carried out. This is only supported for the transfer of restore relationships for entire volumes from the object store. A value for read_write_with_user_data_pull should be provided to start an on-demand restore. A file restore from the object store does not support this option.
options	array[options]	Options for snapmirror transfer.
relationship	relationship	
snapshot	string	Name of Snapshot copy being transferred.

Name	Type	Description
snapshot_retention_period	string	<p>Specifies the duration for which the Snapshot copy specified in the 'source_snapshot' property is locked in the object store. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, or days. A period specified for years, months, or days is represented in the ISO-8601 format as "P&lt;num&gt;Y", "P&lt;num&gt;M", or "P&lt;num&gt;D" respectively. For example, "P10Y" represents a duration of 10 years. The period string must contain only a single time element, that is, either years, months, or days. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. Years, if specified, must be less than or equal to 100. Months, if specified, must be less than or equal to 1200. Days, if specified, must be between and including 30 and 36500. This property is valid only if the 'source_snapshot' property is specified and when the property 'snapshot_lock_mode' in the policy associated with the SnapMirror relationship is set to enterprise or compliance. If this property is not specified and the source Snapshot copy being transferred does not match a policy rule, then a default retention period of "P30D" is set. This property is supported only for non-restore transfers and for object store SnapMirror relationships.</p>
source_snapshot	string	<p>Specifies the Snapshot copy on the source to be transferred to the destination.</p>
source_snapshot_uuid	string	<p>Specifies the Snapshot copy UUID on the object store source to be restored to the destination.</p>

Name	Type	Description
state	string	Status of the transfer. Set PATCH state to "aborted" to abort the transfer. Set PATCH state to "hard_aborted" to abort the transfer and discard the restart checkpoint. To find "queued" transfers refer to relationships GET API.
storage_efficiency_enabled	boolean	This is supported for transfer of restore relationship only. Set this property to "false" to turn off storage efficiency for data transferred over the wire and written to the destination.
throttle	integer	Throttle, in KBs per second. This "throttle" overrides the "throttle" set on the SnapMirror relationship or SnapMirror relationship's policy. If neither of these are set, defaults to 0, which is interpreted as unlimited.
total_duration	string	Elapsed transfer time.
uuid	string	Unique identifier of the SnapMirror transfer.

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "archive_retrieval_priority": "high",
  "bytes_transferred": 0,
  "checkpoint_size": 0,
  "end_time": "2020-12-02 21:36:19 -0500",
  "error_info": {
    "code": 6620046,
    "message": "Transfer aborted"
  },
  "files": [
    {
      "destination_path": "/dirb/file2",
      "source_path": "/dira/file1"
    }
  ],
  "last_updated_time": "2023-09-15 19:58:39 -0400",
  "network_compression_ratio": 61,
  "on_demand_attrs": "read_write_with_user_data_pull",
  "options": [
    {
      "overwrite": 1,
      "preserve_dedup_savings": 1
    }
  ],
  "relationship": {
    "destination": {
      "cluster": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        }
      },
      "name": "cluster1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "consistency_group_volumes": [
      {
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
      }
    ]
  }
}
```

```

    }
  ],
  "ipSPACE": "Default",
  "path": "svm1:volume1",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
},
"uuid": "d2d7ceea-ab52-11e8-855e-00505682a4c7"
},
"snapshot": "string",
"snapshot_retention_period": "P30D",
"source_snapshot": "string",
"source_snapshot_uuid": "string",
"state": "string",
"throttle": 0,
"total_duration": "PT28M41S",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}

```

## 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>	

error\_info

Error information for the transfer.

Name	Type	Description
code	integer	Error code
message	string	Error message

files

Specifies a file or LUN consisting of a `source_path` and an optional `destination_path`. If not specified, the `destination_path` is the same as the `source_path`. File restore is not supported if the `source_path` or `destination_path` contains commas in its directory or file name.

Name	Type	Description
<code>destination_path</code>	string	
<code>source_path</code>	string	

options

Name	Type	Description
<code>overwrite</code>	boolean	Specifies whether or not to overwrite the directory during restore from an object store to a FlexVol volume. This property is only supported for restoring a directory from an object store. Valid values are 'true' or 'false'. This property is not supported for full volume restores from an object store.

Name	Type	Description
preserve_dedup_savings	boolean	Specifies whether or not deduplication savings of a backed up Snapshot copy will be preserved during restore from an object store. This parameter is only supported for restoring an entire volume from an object store. Valid values are 'true' or 'false'. This parameter enables cost-optimized restore, although it may affect the duration of the restore operation. This parameter is not supported for file restores from an object store.

#### cluster

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

#### consistency\_group\_volumes

Name	Type	Description
name	string	The name of the volume.
uuid	string	<p>Unique identifier of the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• x-ntap-createOnly: true</li> <li>• Introduced in: 9.8</li> <li>• x-nullable: true</li> </ul>

#### svm

SVM, applies only to SVM-scoped objects.

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



Name	Type	Description
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.

#### snapmirror\_endpoint

Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint.

Name	Type	Description
cluster	<a href="#">cluster</a>	
consistency_group_volumes	array[ <a href="#">consistency_group_volumes</a> ]	Mandatory property for a Consistency Group endpoint. Specifies the list of FlexVol volumes for a Consistency Group.
ipspace	string	Optional property to specify the IPspace of the SVM.
path	string	ONTAP FlexVol/FlexGroup - svm1:volume1 ONTAP SVM - svm1: ONTAP Consistency Group - svm1:/cg/cg_name ONTAP S3 - svm1:/bucket/bucket1 NON-ONTAP - objstore1:/objstore <ul style="list-style-type: none"> <li>• example: svm1:volume1</li> <li>• Introduced in: 9.6</li> <li>• x-nullable: true</li> </ul>
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.

Name	Type	Description
uuid	string	Unique identifier of the endpoint. Applicable for object store SnapMirror relationships only.

relationship

Name	Type	Description
destination	<a href="#">snapmirror_endpoint</a>	Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint. <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
restore	boolean	Is the relationship for restore?
uuid	string	Unique identifier of the SnapMirror relationship.

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.

## Cancel an ongoing SnapMirror transfer

PATCH /snapmirror/relationships/{relationship.uuid}/transfers/{uuid}

Introduced In: 9.6

Aborts an ongoing SnapMirror transfer. This operation is applicable on asynchronous SnapMirror relationships.

### Related ONTAP commands

- `snapmirror abort`

### Example

```
PATCH "/api/snapmirror/relationships/293baa53-e63d-11e8-bff1-005056a793dd/transfers/293baa53-e63d-11e8-bff1-005056a793dd"
'{"state":"aborted"}'
```

### Learn more

- [DOC /snapmirror/relationships/{relationship.uuid}/transfers](#)

### Parameters

Name	Type	In	Required	Description
relationship.uuid	string	path	True	SnapMirror relationship UUID
uuid	string	path	True	SnapMirror transfer UUID

## Request Body

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
archive_retrieval_priority	string	This is supported for transfer of restore relationship only. Priority level at which objects are restored from the archival storage. The value can be high, standard or low. The cloud provider's lowest priority will be used as the default. It is only supported for object store SnapMirror relationships. If the objects were not archived, the property will be ignored.
bytes_transferred	integer	Bytes transferred
checkpoint_size	integer	Amount of data transferred in bytes as recorded in the restart checkpoint.
end_time	string	End time of the transfer.
error_info	<a href="#">error_info</a>	Error information for the transfer.
files	array[ <a href="#">files</a> ]	This is supported for transfer of restore relationship only. This specifies the list of files or LUNs to be restored. Can contain up to eight files or LUNs.
last_updated_time	string	Last updated time of the bytes transferred in an active transfer.
network_compression_ratio	string	Specifies the compression ratio achieved for the data sent over the wire with network compression enabled. This property is only valid for active transfers.

Name	Type	Description
on_demand_attrs	string	Specifies whether or not an on-demand restore is being carried out. This is only supported for the transfer of restore relationships for entire volumes from the object store. A value for read_write_with_user_data_pull should be provided to start an on-demand restore. A file restore from the object store does not support this option.
options	array[options]	Options for snapmirror transfer.
relationship	relationship	
snapshot	string	Name of Snapshot copy being transferred.

Name	Type	Description
snapshot_retention_period	string	<p>Specifies the duration for which the Snapshot copy specified in the 'source_snapshot' property is locked in the object store. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, or days. A period specified for years, months, or days is represented in the ISO-8601 format as "P&lt;num&gt;Y", "P&lt;num&gt;M", or "P&lt;num&gt;D" respectively. For example, "P10Y" represents a duration of 10 years. The period string must contain only a single time element, that is, either years, months, or days. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. Years, if specified, must be less than or equal to 100. Months, if specified, must be less than or equal to 1200. Days, if specified, must be between and including 30 and 36500. This property is valid only if the 'source_snapshot' property is specified and when the property 'snapshot_lock_mode' in the policy associated with the SnapMirror relationship is set to enterprise or compliance. If this property is not specified and the source Snapshot copy being transferred does not match a policy rule, then a default retention period of "P30D" is set. This property is supported only for non-restore transfers and for object store SnapMirror relationships.</p>
source_snapshot	string	<p>Specifies the Snapshot copy on the source to be transferred to the destination.</p>
source_snapshot_uuid	string	<p>Specifies the Snapshot copy UUID on the object store source to be restored to the destination.</p>

Name	Type	Description
state	string	Status of the transfer. Set PATCH state to "aborted" to abort the transfer. Set PATCH state to "hard_aborted" to abort the transfer and discard the restart checkpoint. To find "queued" transfers refer to relationships GET API.
storage_efficiency_enabled	boolean	This is supported for transfer of restore relationship only. Set this property to "false" to turn off storage efficiency for data transferred over the wire and written to the destination.
throttle	integer	Throttle, in KBs per second. This "throttle" overrides the "throttle" set on the SnapMirror relationship or SnapMirror relationship's policy. If neither of these are set, defaults to 0, which is interpreted as unlimited.
total_duration	string	Elapsed transfer time.
uuid	string	Unique identifier of the SnapMirror transfer.

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "archive_retrieval_priority": "high",
  "bytes_transferred": 0,
  "checkpoint_size": 0,
  "end_time": "2020-12-02 21:36:19 -0500",
  "error_info": {
    "code": 6620046,
    "message": "Transfer aborted"
  },
  "files": [
    {
      "destination_path": "/dirb/file2",
      "source_path": "/dira/file1"
    }
  ],
  "last_updated_time": "2023-09-15 19:58:39 -0400",
  "network_compression_ratio": 61,
  "on_demand_attrs": "read_write_with_user_data_pull",
  "options": [
    {
      "overwrite": 1,
      "preserve_dedup_savings": 1
    }
  ],
  "relationship": {
    "destination": {
      "cluster": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        }
      },
      "name": "cluster1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "consistency_group_volumes": [
      {
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
      }
    ]
  }
}
```



```

    }
  ],
  "ipspace": "Default",
  "path": "svm1:volume1",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
},
"uuid": "d2d7ceea-ab52-11e8-855e-00505682a4c7"
},
"snapshot": "string",
"snapshot_retention_period": "P30D",
"source_snapshot": "string",
"source_snapshot_uuid": "string",
"state": "string",
"throttle": 0,
"total_duration": "PT28M41S",
"uuid": "4ea7a442-86d1-11e0-ae1c-123478563412"
}

```

## Response

Status: 200, Ok

## Error

Status: Default

### ONTAP Error Response codes

Error code	Description
13303848	Abort of sync SnapMirror is not allowed
13303849	SnapMirror transfer state is invalid

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>	

error\_info

Error information for the transfer.

Name	Type	Description
code	integer	Error code
message	string	Error message

files

Specifies a file or LUN consisting of a `source_path` and an optional `destination_path`. If not specified, the `destination_path` is the same as the `source_path`. File restore is not supported if the `source_path` or `destination_path` contains commas in its directory or file name.

Name	Type	Description
<code>destination_path</code>	string	
<code>source_path</code>	string	

options

Name	Type	Description
<code>overwrite</code>	boolean	Specifies whether or not to overwrite the directory during restore from an object store to a FlexVol volume. This property is only supported for restoring a directory from an object store. Valid values are 'true' or 'false'. This property is not supported for full volume restores from an object store.

Name	Type	Description
preserve_dedup_savings	boolean	Specifies whether or not deduplication savings of a backed up Snapshot copy will be preserved during restore from an object store. This parameter is only supported for restoring an entire volume from an object store. Valid values are 'true' or 'false'. This parameter enables cost-optimized restore, although it may affect the duration of the restore operation. This parameter is not supported for file restores from an object store.

#### cluster

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

#### consistency\_group\_volumes

Name	Type	Description
name	string	The name of the volume.
uuid	string	<p>Unique identifier of the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• x-ntap-createOnly: true</li> <li>• Introduced in: 9.8</li> <li>• x-nullable: true</li> </ul>

#### svm

SVM, applies only to SVM-scoped objects.

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

Name	Type	Description
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.

#### snapmirror\_endpoint

Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint.

Name	Type	Description
cluster	<a href="#">cluster</a>	
consistency_group_volumes	array[ <a href="#">consistency_group_volumes</a> ]	Mandatory property for a Consistency Group endpoint. Specifies the list of FlexVol volumes for a Consistency Group.
ipspace	string	Optional property to specify the IPspace of the SVM.
path	string	ONTAP FlexVol/FlexGroup - svm1:volume1 ONTAP SVM - svm1: ONTAP Consistency Group - svm1:/cg/cg_name ONTAP S3 - svm1:/bucket/bucket1 NON-ONTAP - objstore1:/objstore <ul style="list-style-type: none"> <li>• example: svm1:volume1</li> <li>• Introduced in: 9.6</li> <li>• x-nullable: true</li> </ul>
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.

Name	Type	Description
uuid	string	Unique identifier of the endpoint. Applicable for object store SnapMirror relationships only.

#### relationship

Name	Type	Description
destination	<a href="#">snapmirror_endpoint</a>	Endpoint of a SnapMirror relationship. For a GET request, the property "cluster" is populated when the endpoint is on a remote cluster. A POST request to create the destination SVM endpoint or to establish an SVM DR relationship must have the property "cluster" populated with the remote cluster details. A POST request to create the destination FlexVol volume, FlexGroup volume, Consistency Group, ONTAP S3 bucket and NON-ONTAP object-store endpoints can optionally specify the "cluster" property when the source SVM and the destination SVM are peered. A POST request to establish a SnapMirror relationship between the source endpoint and destination endpoint and when the source SVM and the destination SVM are not peered, must specify the "cluster" property for the remote endpoint. <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
restore	boolean	Is the relationship for restore?
uuid	string	Unique identifier of the SnapMirror relationship.

#### snapmirror\_transfer

##### SnapMirror transfer information

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

Name	Type	Description
archive_retrieval_priority	string	This is supported for transfer of restore relationship only. Priority level at which objects are restored from the archival storage. The value can be high, standard or low. The cloud provider's lowest priority will be used as the default. It is only supported for object store SnapMirror relationships. If the objects were not archived, the property will be ignored.
bytes_transferred	integer	Bytes transferred
checkpoint_size	integer	Amount of data transferred in bytes as recorded in the restart checkpoint.
end_time	string	End time of the transfer.
error_info	<a href="#">error_info</a>	Error information for the transfer.
files	array[ <a href="#">files</a> ]	This is supported for transfer of restore relationship only. This specifies the list of files or LUNs to be restored. Can contain up to eight files or LUNs.
last_updated_time	string	Last updated time of the bytes transferred in an active transfer.
network_compression_ratio	string	Specifies the compression ratio achieved for the data sent over the wire with network compression enabled. This property is only valid for active transfers.

Name	Type	Description
on_demand_attrs	string	Specifies whether or not an on-demand restore is being carried out. This is only supported for the transfer of restore relationships for entire volumes from the object store. A value for read_write_with_user_data_pull should be provided to start an on-demand restore. A file restore from the object store does not support this option.
options	array[options]	Options for snapmirror transfer.
relationship	relationship	
snapshot	string	Name of Snapshot copy being transferred.



Name	Type	Description
snapshot_retention_period	string	<p>Specifies the duration for which the Snapshot copy specified in the 'source_snapshot' property is locked in the object store. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, or days. A period specified for years, months, or days is represented in the ISO-8601 format as "P&lt;num&gt;Y", "P&lt;num&gt;M", or "P&lt;num&gt;D" respectively. For example, "P10Y" represents a duration of 10 years. The period string must contain only a single time element, that is, either years, months, or days. A duration which combines different periods is not supported, for example "P1Y10M" is not supported. Years, if specified, must be less than or equal to 100. Months, if specified, must be less than or equal to 1200. Days, if specified, must be between and including 30 and 36500. This property is valid only if the 'source_snapshot' property is specified and when the property 'snapshot_lock_mode' in the policy associated with the SnapMirror relationship is set to enterprise or compliance. If this property is not specified and the source Snapshot copy being transferred does not match a policy rule, then a default retention period of "P30D" is set. This property is supported only for non-restore transfers and for object store SnapMirror relationships.</p>
source_snapshot	string	<p>Specifies the Snapshot copy on the source to be transferred to the destination.</p>

Name	Type	Description
source_snapshot_uuid	string	Specifies the Snapshot copy UUID on the object store source to be restored to the destination.
state	string	Status of the transfer. Set PATCH state to "aborted" to abort the transfer. Set PATCH state to "hard_aborted" to abort the transfer and discard the restart checkpoint. To find "queued" transfers refer to relationships GET API.
storage_efficiency_enabled	boolean	This is supported for transfer of restore relationship only. Set this property to "false" to turn off storage efficiency for data transferred over the wire and written to the destination.
throttle	integer	Throttle, in KBs per second. This "throttle" overrides the "throttle" set on the SnapMirror relationship or SnapMirror relationship's policy. If neither of these are set, defaults to 0, which is interpreted as unlimited.
total_duration	string	Elapsed transfer time.
uuid	string	Unique identifier of the SnapMirror transfer.

#### 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

<b>Name</b>	<b>Type</b>	<b>Description</b>
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

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