



# **Manage storage FlexCache origin volumes**

ONTAP 9.6 REST API reference

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# Manage storage FlexCache origin volumes

## Storage flexcache origins endpoint overview

### Overview

FlexCache is a persistent cache of an origin volume. An origin volume can only be a FlexVol while a FlexCache is always a FlexGroup.

The following relationship configurations are supported:

&ndash; Intra-Vserver where FlexCache and the corresponding origin volume reside in the same Vserver.

&ndash; Cross-Vserver but intra-cluster where FlexCache and the origin volume reside in the same cluster but belong to different Vservers.

&ndash; Cross-cluster where FlexCache and the origin volume reside in different clusters.

FlexCache supports fan-out and more than one FlexCache can be created from one origin volume. This API retrieves the origin of FlexCache configurations in the origin cluster.

### FlexCache APIs

The following APIs can be used to perform operations related to the origin of a FlexCache:

&ndash; GET /api/storage/flexcache/origins

&ndash; GET /api/storage/flexcache/origins/{uuid}

### Examples

#### Retrieving origins of FlexCache attributes

The GET request is used to retrieve the origins of FlexCache attributes.

```
# The API:
/api/storage/flexcache/origins

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/flexcache/origins?" -H
"accept: application/json"

# The response:
{
  "records": [
    {
      "uuid": "2bc957dd-2617-4afb-8d2f-66ac6070d313",
      "name": "vol_01",
      "_links": {
        "self": {
          "href": "/api/storage/flexcache/origins/2bc957dd-2617-4afb-8d2f-66ac6070d313"
        }
      }
    },
    {
      "uuid": "80fcaee4-0dc2-488b-afb8-86d28a34cda8",
      "name": "vol_1",
      "_links": {
        "self": {
          "href": "/api/storage/flexcache/origins/80fcaee4-0dc2-488b-afb8-86d28a34cda8"
        }
      }
    }
  ],
  "num_records": 2,
  "_links": {
    "self": {
      "href": "/api/storage/flexcache/origins?"
    }
  }
}
```

### Retrieving the attributes of an origin volume

The GET request is used to retrieve the attributes of an origin volume.

```
# The API:
/api/storage/flexcache/origins/{uuid}
```

```
# The call:
curl -X GET "https://<mgmt-ip>/api/storage/flexcache/origins/80fcaee4-0dc2-488b-afb8-86d28a34cda8" -H "accept: application/json"

# The response:
{
  "uuid": "80fcaee4-0dc2-488b-afb8-86d28a34cda8",
  "name": "vol_1",
  "svm": {
    "name": "vs_3",
    "uuid": "8aa2cd28-0e92-11e9-b391-0050568e4115"
  },
  "flexcaches": [
    {
      "ip_address": "10.140.103.183",
      "create_time": "2019-01-02T19:27:22+05:30",
      "volume": {
        "name": "fc_42",
        "uuid": "4e7f9d49-0e96-11e9-aed0-0050568eddb"
      },
      "svm": {
        "name": "vs_1_4",
        "uuid": "36f68322-0e93-11e9-aed0-0050568eddb"
      },
      "cluster": {
        "name": "node4",
        "uuid": "c32f16b8-0e90-11e9-aed0-0050568eddb"
      }
    },
    {
      "ip_address": "10.140.103.183",
      "create_time": "2019-01-02T21:08:34+05:30",
      "volume": {
        "name": "fc_421",
        "uuid": "71ee8f36-0ea4-11e9-aed0-0050568eddb"
      },
      "svm": {
        "name": "vs_1_4",
        "uuid": "36f68322-0e93-11e9-aed0-0050568eddb"
      },
      "cluster": {
        "name": "node4",
        "uuid": "c32f16b8-0e90-11e9-aed0-0050568eddb"
      }
    }
  ],
}
```

```

{
  "ip_address": "10.140.103.183",
  "create_time": "2019-01-03T11:14:38+05:30",
  "volume": {
    "name": "fc_422"
  },
  "svm": {
    "name": "vs_1_4",
    "uuid": "36f68322-0e93-11e9-aed0-0050568eddb"
  },
  "cluster": {
    "name": "node4",
    "uuid": "c32f16b8-0e90-11e9-aed0-0050568eddb"
  }
},
{
  "ip_address": "10.140.103.179",
  "size": 4294967296,
  "create_time": "2019-01-02T19:24:14+05:30",
  "state": "online",
  "volume": {
    "name": "fc_32",
    "uuid": "ddb42bbc-0e95-11e9-8180-0050568e0b79"
  },
  "svm": {
    "name": "vs_1",
    "uuid": "e708fbe2-0e92-11e9-8180-0050568e0b79"
  },
  "cluster": {
    "name": "node3",
    "uuid": "8eb21b3b-0e90-11e9-8180-0050568e0b79"
  }
},
{
  "ip_address": "10.140.103.179",
  "size": 4294967296,
  "create_time": "2019-01-02T21:07:23+05:30",
  "state": "online",
  "volume": {
    "name": "fc_321",
    "uuid": "47902654-0ea4-11e9-8180-0050568e0b79"
  },
  "svm": {
    "name": "vs_1",
    "uuid": "e708fbe2-0e92-11e9-8180-0050568e0b79"
  },

```

```
"cluster": {
  "name": "node3",
  "uuid": "8eb21b3b-0e90-11e9-8180-0050568e0b79"
},
{
  "ip_address": "10.140.103.179",
  "size": 4294967296,
  "create_time": "2019-01-03T00:11:38+05:30",
  "state": "online",
  "volume": {
    "name": "fc_322",
    "uuid": "04d5e07b-0ebe-11e9-8180-0050568e0b79"
  },
  "svm": {
    "name": "vs_1",
    "uuid": "e708fbe2-0e92-11e9-8180-0050568e0b79"
  },
  "cluster": {
    "name": "node3",
    "uuid": "8eb21b3b-0e90-11e9-8180-0050568e0b79"
  }
},
{
  "ip_address": "10.140.103.179",
  "size": 4294967296,
  "create_time": "2019-01-03T00:14:52+05:30",
  "state": "online",
  "volume": {
    "name": "fc_323",
    "uuid": "77e911ff-0ebe-11e9-8180-0050568e0b79"
  },
  "svm": {
    "name": "vs_1",
    "uuid": "e708fbe2-0e92-11e9-8180-0050568e0b79"
  },
  "cluster": {
    "name": "node3",
    "uuid": "8eb21b3b-0e90-11e9-8180-0050568e0b79"
  }
}
],
"_links": {
  "self": {
    "href": "/api/storage/flexcache/origins/80fcaee4-0dc2-488b-afb8-86d28a34cda8"
  }
}
```

```
}  
}  
}
```

## Retrieve the origin of a FlexCache volume in the cluster

GET /storage/flexcache/origins

Retrieves origin of FlexCaches in the cluster.

### Expensive properties

There is an added cost to retrieving values for these properties. They are not included by default in GET results and must be explicitly requested using the `fields` query parameter. See [DOC Requesting specific fields](#) to learn more.

- `flexcaches.ip_address` - IP address of FlexCache.
- `flexcaches.size` - Physical size of FlexCache.
- `flexcaches.state` - State of FlexCache.

### Related ONTAP commands

- `volume flexcache origin show-caches`

### Learn more

- [DOC /storage/flexcache/origins](#)

### Parameters

Name	Type	In	Required	Description
<code>uuid</code>	string	query	False	Filter by uuid
<code>flexcaches.cluster.uuid</code>	string	query	False	Filter by <code>flexcaches.cluster.uuid</code>
<code>flexcaches.cluster.name</code>	string	query	False	Filter by <code>flexcaches.cluster.name</code>
<code>flexcaches.ip_addresses</code>	string	query	False	Filter by <code>flexcaches.ip_addresses</code>



Name	Type	In	Required	Description
flexcaches.state	string	query	False	Filter by flexcaches.state
flexcaches.volume.name	string	query	False	Filter by flexcaches.volume.name
flexcaches.volume.uuid	string	query	False	Filter by flexcaches.volume.uuid
flexcaches.size	integer	query	False	Filter by flexcaches.size
flexcaches.svm.uuid	string	query	False	Filter by flexcaches.svm.uuid
flexcaches.svm.name	string	query	False	Filter by flexcaches.svm.name
flexcaches.create_time	string	query	False	Filter by flexcaches.create_time
name	string	query	False	Filter by name
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
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.
fields	array[string]	query	False	Specify the fields to return.

Name	Type	In	Required	Description
max_records	integer	query	False	Limit the number of records returned.
order_by	array[string]	query	False	Order results by specified fields and optional [asc
desc] direction. Default direction is 'asc' for ascending.	return_records	boolean	query	False

## Response

Status: 200, Ok

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

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "flexcaches": {
      "cluster": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "cluster1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "create_time": "2018-06-04 19:00:00 UTC",
      "ip_address": "10.10.10.7",
      "size": 0,
      "state": "error",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "volume": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        }
      }
    },
  },
}
```

```

    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  },
  "name": "voll, vol_2",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563512"
}

```

## Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

```

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

```

# Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

\_links

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

cluster

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

svm

SVM, applies only to SVM-scoped objects.

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

volume

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the volume.

Name	Type	Description
uuid	string	Unique identifier for 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. <ul style="list-style-type: none"> <li>example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> </ul>

#### flexcache\_relationship

Name	Type	Description
cluster	<a href="#">cluster</a>	
create_time	string	Creation time of the relationship.
ip_address	string	Cluster management IP of the remote cluster.
size	integer	Size of the remote volume.
state	string	Volume state
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
volume	<a href="#">volume</a>	

#### svm

##### Origin volume SVM

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

#### flexcache\_origin

Defines the origin endpoint of FlexCache.

Name	Type	Description
_links	<a href="#">_links</a>	
flexcaches	array[ <a href="#">flexcache_relationship</a> ]	

Name	Type	Description
name	string	Origin volume name
svm	<a href="#">svm</a>	Origin volume SVM
uuid	string	Origin volume UUID. Unique identifier for origin of FlexCache.

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

## Retrieve attributes of the origin of a FlexCache volume in the cluster

GET /storage/flexcache/origins/{uuid}

Retrieves attributes of the origin of a FlexCache in the cluster.

### Expensive properties

There is an added cost to retrieving values for these properties. They are included by default in GET results. The recommended method to use this API is to use filter and retrieve only the required fields. See [DOC Requesting specific fields](#) to learn more.

- `flexcaches.ip_address` - IP address of FlexCache.
- `flexcaches.size` - Physical size of FlexCache.



- `flexcaches.state` - State of FlexCache.

## Related ONTAP commands

- `volume flexcache origin show-caches`

## Learn more

- [DOC /storage/flexcache/origins](#)

## Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Unique identifier of origin of FlexCache.
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>	
flexcaches	array[ <a href="#">flexcache_relationship</a> ]	
name	string	Origin volume name
svm	<a href="#">svm</a>	Origin volume SVM
uuid	string	Origin volume UUID. Unique identifier for origin of FlexCache.

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "flexcaches": {
    "cluster": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "cluster1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "create_time": "2018-06-04 19:00:00 UTC",
    "ip_address": "10.10.10.7",
    "size": 0,
    "state": "error",
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    },
    "volume": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "volume1",
      "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
    }
  },
  "name": "voll, vol_2",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  }
}
```

```
    }
  },
  "name": "svm1",
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563512"
}
```

## Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

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

cluster

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

svm

SVM, applies only to SVM-scoped objects.

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

volume

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the volume.
uuid	string	Unique identifier for 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. <ul style="list-style-type: none"><li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li></ul>

## flexcache\_relationship

Name	Type	Description
cluster	<a href="#">cluster</a>	
create_time	string	Creation time of the relationship.
ip_address	string	Cluster management IP of the remote cluster.
size	integer	Size of the remote volume.
state	string	Volume state
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
volume	<a href="#">volume</a>	

## svm

## Origin volume SVM

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

## error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

## error

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

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

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