Manage FlexCache volumes

REST API reference

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Manage FlexCache volumes

Storage flexcache flexcaches 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:

– Intra-Vserver where FlexCache and the corresponding origin volume reside in the same Vserver.

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

– 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 and manages FlexCache configurations in the cache cluster.

FlexCache APIs

The following APIs can be used to perform operations related with FlexCache:

– GET /api/storage/flexcache/flexcaches

– GET /api/storage/flexcache/flexcaches/{uuid}

– POST /api/storage/flexcache/flexcaches

– DELETE /api/storage/flexcache/flexcaches/{uuid}

Examples

Creating a FlexCache

The POST request is used to create a FlexCache.

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

# The call:
curl -X POST "https://<mgmt-ip>/api/storage/flexcache/flexcaches" -H
"accept: application/json" -H  "Content-Type: application/json" -d "{
\"aggregates\": [ { \"name\": \"aggr_1\" } ], \"name\": \"fc_333\",
\"origins\": [ {  \"svm\": { \"name\": \"vs_3\"  }, \"volume\": {
\"name\": \"vol_o1\" } } ], \"svm\": { \"name\": \"vs_1\" } }"

# The response:
{
"job": {
  "uuid": "e751dd5d-0f3c-11e9-8b2b-0050568e0b79",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/e751dd5d-0f3c-11e9-8b2b-0050568e0b79"
    }
  }
}
}
```

curl -X POST "https://<mgmt-ip>/api/storage/flexcache/flexcaches" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"aggregates\": [{ \"name\": \"aggr_1\" }], \"name\": \"fc_333\", \"origins\": [{ \"svm\": { \"name\": \"vs_3\" }, \"volume\": { \"name\": \"vol_o1\" } }], \"svm\": { \"name\": \"vs_1\" }, \"path\": \"/fc_333\", \"prepopulate\": { \"dir_paths\": [\"/dir1\"] } }"</mgmt-ip>

The response:

{ "job": { "uuid": "e751dd5d-0f3c-11e9-8b2b-0050568e0b79", "_links": { "self": { "href": "/api/cluster/jobs/e751dd5d-0f3c-11e9-8b2b-0050568e0b79" } } } }

```
curl -X POST "https://<mgmt-ip>/api/storage/flexcache/flexcaches" -H
"accept: application/json" -H  "Content-Type: application/json" -d "{
\"aggregates\": [ { \"name\":           \"aggr_1\" } ], \"name\":
\"fc_333\", \"origins\": [ {  \"svm\": { \"name\": \"vs_3\"  },
\"volume\": { \"name\": \"vol_o1\" } } ], \"svm\": { \"name\": \"vs_1\" },
\"path\": \"/       fc_333\", \"prepopulate\": { \"dir_paths\": [
\"/dir1\" ], \"exclude_dir_paths\": [ \"/dir1/dir11\" ] } }"

# The response:
{
"job": {
  "uuid": "5afe9ea4-1dcf-11eb-b006-005056ac6a93",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/5afe9ea4-1dcf-11eb-b006-005056ac6a93"
    }
  }
}
}
```

curl -X POST "https://<mgmt-ip>/api/storage/flexcache/flexcaches" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"aggregates\": [{ \"name\": \"aggr_1\" }], \"name\": \"fc_333\", \"origins\": [{ \"svm\": { \"name\": \"vs_3\" }, \"volume\": { \"name\": \"vol_o1\" } }], \"svm\":{ \"name\": \"vs_1\" }, \"dr_cache\": true, \"path\": \"/fc_333\", \"prepopulate\": { \"dir_paths\": [\"/dir1\"] } }"</mgmt-ip>

The response:

{ "job": { "uuid": "e751dd5d-0f3c-11e9-8b2b-0050568e0b79", "_links": { "self": { "href": "/api/cluster/jobs/e751dd5d-0f3c-11e9-8b2b-0050568e0b79" } } } }

```
### Retrieving FlexCache attributes
The GET request is used to retrieve FlexCache attributes. The object
includes a large set of fields which can be expensive to retrieve. Most
notably, the fields size, guarantee.type, aggregates, path,
origins.ip_address, origins.size, and origins.state are expensive to
retrieve. The recommended method to use this API is to filter and retrieve
only the required fields.
```

The API:

/api/storage/flexcache/flexcaches

The call:

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

The response:

{ "records": [{ "uuid": "04d5e07b-0ebe-11e9-8180-0050568e0b79", "name": "fc_322", "_links": { "self": { "href": "/api/storage/flexcache/flexcaches/04d5e07b-0ebe-11e9-8180-0050568e0b79" } } }, { "uuid": "47902654-0ea4-11e9-8180-0050568e0b79", "name": "fc_321", "_links": { "self": { "href": "/api/storage/flexcache/flexcaches/47902654-0ea4-11e9-8180-0050568e0b79" } } }, { "uuid": "77e911ff-0ebe-11e9-8180-0050568e0b79", "name": "fc_323", "_links": { "self": { "href": "/api/storage/flexcache/flexcaches/77e911ff-0ebe-11e9-8180-0050568e0b79" } } }, { "uuid": "ddb42bbc-0e95-11e9-8180-0050568e0b79", "name": "fc_32", "_links": { "self": { "href": "/api/storage/flexcache/flexcaches/ddb42bbc-0e95-11e9-8180-0050568e0b79" } } }, { "uuid": "ec774932-0f3c-11e9-8b2b-0050568e0b79", "name": "fc_333", "_links": { "self": { "href": "/api/storage/flexcache/flexcaches/ec774932-0f3c-11e9-8b2b-0050568e0b79" } } }], "num_records": 5, "_links": { "self": { "href": "/api/storage/flexcache/flexcaches?" } } }

```
### Retrieving the attributes of a FlexCache
The GET request is used to retrieve the attributes of a FlexCache. The
object includes a large set of fields which can be expensive to retrieve.
Most notably, the fields size, guarantee.type, aggregates, path,
origins.ip_address, origins.size, and origins.state are expensive to
retrieve. The recommended method to use this API is to filter and retrieve
only the required fields.
```

The API:

/api/storage/flexcache/flexcaches/{uuid}

The call:

curl -X GET "https://<mgmt-ip>/api/storage/flexcache/flexcaches/ec774932-0f3c-11e9-8b2b-0050568e0b79" -H "accept: application/json"</mgmt-ip>

The response:

{ "uuid": "ec774932-0f3c-11e9-8b2b-0050568e0b79", "name": "fc_333", "svm": { "name": "vs_1", "uuid": "e708fbe2-0e92-11e9-8180-0050568e0b79" }, "size": 4294967296, "guarantee": { "type": "volume" }, "dr_cache": "true", "aggregates": [{ "name": "aggr_1", "uuid": "26f34b76-88f8-4a47-b5e0-d8e901fb1114" }], "origins": [{ "ip_address": "10.140.103.175", "size": 20971520, "create_time": "2019-01-03T15:19:55+05:30", "state": "online", "volume": { "name": "vol_o1", "uuid": "2bc957dd-2617-4afb-8d2f-66ac6070d313" }, "svm": { "name": "vs_3", "uuid": "8aa2cd28-0e92-11e9-b391-0050568e4115" }, "cluster": { "name": "node2", "uuid": "50733f81-0e90-11e9-b391-0050568e4115" } }], "_links": { "self": { "href": "/api/storage/flexcache/flexcaches/ec774932-0f3c-11e9-8b2b-0050568e0b79" } } }

```
### Deleting a FlexCache
The DELETE request is used to delete a FlexCache.
```

The API:

/api/storage/flexcache/flexcaches

The call:

curl -X DELETE "https://<mgmt-ip>/api/storage/flexcache/flexcaches/ec774932-0f3c-11e9-8b2b-0050568e0b79" -H "accept: application/json"</mgmt-ip>

The response:

{ "job": { "uuid": "e17994f2-0f3e-11e9-8b2b-0050568e0b79", "_links": { "self": { "href": "/api/cluster/jobs/e17994f2-0f3e-11e9-8b2b-0050568e0b79" } } } }

```
### Modifying a FlexCache volume
Use the PATCH request to update a FlexCache volume.
```

the API:

/api/storage/flexcache/flexcaches/{uuid}

The call:

curl -X PATCH "https://<mgmt-ip>/api/storage/flexcache/flexcaches/ec774932-0f3c-11e9-8b2b-0050568e0b79" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"prepopulate\": { \"dir_paths\": [\"/dir1\"] } }"</mgmt-ip>

The response:

{ "job": { "uuid": "e751dd5d-0f3c-11e9-8b2b-0050568e0b79", "_links": { "self": { "href": "/api/cluster/jobs/e751dd5d-0f3c-11e9-8b2b-0050568e0b79" } } } }

```
# The call
curl -X PATCH "https://<mgmt-
ip>/api/storage/flexcache/flexcaches/ec774932-0f3c-11e9-8b2b-0050568e0b79"
-H  "accept: application/json" -H  "Content-Type: application/json" -d "{
\"prepopulate\": { \"dir_paths\": [ \"/dir1\" ], \"exclude_dir_paths\": [
\"/dir1/dir11\" ] } }"

# The response:
{
"job": {
  "uuid": "b574c48c-1da7-11eb-b006-005056ac6a93",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/b574c48c-1da7-11eb-b006-005056ac6a93"
    }
  }
}
}
```

The call

curl -X PATCH "https://<mgmt-ip>/api/storage/flexcache/flexcaches/28f9734a-2fc2-11ed-a5d5-005056bb2b7" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"writeback\" : { \"enabled\": true } }"</mgmt-ip>

The response:

{ "job": { "uuid": "c521a541-3046-11ed-a5d5-005056bbb2b7", "_links": { "self": { "href": "/api/cluster/jobs/c521a541-3046-11ed-a5d5-005056bbb2b7" } } } }

```
# The call
curl -X PATCH "https://<mgmt-
ip>/api/storage/flexcache/flexcaches/28f9734a-2fc2-11ed-a5d5-005056bb2b7"
-H "accept: application/json" -H "Content-Type: application/json" -d '{
\"writeback\" : { \"enabled\": false } }'

# The response:
{
"job": {
  "uuid": "17e193f3-304b-11ed-a5d5-005056bbb2b7",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/17e193f3-304b-11ed-a5d5-005056bbb2b7"
    }
  }
}
}
```

The call

curl -X PATCH "https://<mgmt-ip>/api/storage/flexcache/flexcaches/885dfd0f-ac37-11ed-a2ca-005056bb5573" -H "accept: application/json" -d '{"relative_size" : {"enabled":true, "percentage" : 50}}'</mgmt-ip>

The response:

{ "job": { "uuid": "34d9c90d-ac38-11ed-a2ca-005056bb5573", "_links": { "self": { "href": "/api/cluster/jobs/34d9c90d-ac38-11ed-a2ca-005056bb5573" } } } }

```
# The call
curl -X PATCH "https://<mgmt-
ip>/api/storage/flexcache/flexcaches/885dfd0f-ac37-11ed-a2ca-005056bb5573"
-H "accept: application/json" -d '{"relative_size" : {"enabled":false}}'

# The response:
{
"job": {
  "uuid": "14bfcc28-ac82-11ed-83bd-005056bb5573",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/14bfcc28-ac82-11ed-83bd-005056bb5573"
    }
  }
}
}
```

The call

curl -X PATCH "https://<mgmt-ip>/api/storage/flexcache/flexcaches/885dfd0f-ac37-11ed-a2ca-005056bb5573" -H "accept: application/json" -d '{"atime_scrub" : {"enabled":true, "period" : 30}}'</mgmt-ip>

The response:

{ "job": { "uuid": "34d9c90d-ac38-11ed-a2ca-005056bb5573", "_links": { "self": { "href": "/api/cluster/jobs/34d9c90d-ac38-11ed-a2ca-005056bb5573" } } } }

```
# The call
curl -X PATCH "https://<mgmt-
ip>/api/storage/flexcache/flexcaches/885dfd0f-ac37-11ed-a2ca-005056bb5573"
-H "accept: application/json" -d '{"atime_scrub" : {"enabled":false}}'

# The response:
{
"job": {
  "uuid": "14bfcc28-ac82-11ed-83bd-005056bb5573",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/14bfcc28-ac82-11ed-83bd-005056bb5573"
    }
  }
}
}
```

The call

curl -X PATCH "https://<mgmt-ip>/api/storage/flexcache/flexcaches/885dfd0f-ac37-11ed-a2ca-005056bb5573" -H "accept: application/json" -d '{"cifs_change_notify" : {"enabled":true}}'</mgmt-ip>

The response:

{ "job": { "uuid": "14bfcc28-ac82-11ed-83bd-005056bb5573", "_links": { "self": { "href": "/api/cluster/jobs/14bfcc28-ac82-11ed-83bd-005056bb5573" } } } } ``

Retrieve a FlexCache volume in the cluster

GET `/storage/flexcache/flexcaches`

Introduced In: 9.6

Retrieves FlexCache in the cluster.

Expensive properties

There is an added computational 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 Requesting specific fields to learn more.

- `origins.ip_address` - IP address of origin.
- `origins.size` - Physical size of origin.
- `origins.state` - State of origin.
- `size` - Physical size of FlexCache.
- `guarantee.type` - Space guarantee style of FlexCache.
- `aggregates.name` or `aggregates.uuid` - Name or UUID of aggregrate of FlexCache volume.
- `path` - Fully-qualified path of the owning SVM's namespace where the FlexCache is mounted.

Related ONTAP commands

- `volume flexcache show`

Learn more

- DOC /storage/flexcache/flexcaches

Parameters

Name	Type	In	Required	Description
override_encryption	boolean	query	False	Filter by override_encryption • Introduced in: 9.14
atime_scrub.enabled	boolean	query	False	Filter by atime_scrub.enabled • Introduced in: 9.14
atime_scrub.period	integer	query	False	Filter by atime_scrub.period • Introduced in: 9.14
origins.svm.uuid	string	query	False	Filter by origins.svm.uuid

Name	Type	In	Required	Description
origins.svm.name	string	query	False	Filter by origins.svm.name
origins.create_time	string	query	False	Filter by origins.create_time
origins.ip_address	string	query	False	Filter by origins.ip_address
origins.size	integer	query	False	Filter by origins.size
origins.cluster.uuid	string	query	False	Filter by origins.cluster.uuid
origins.cluster.name	string	query	False	Filter by origins.cluster.name
origins.volume.name	string	query	False	Filter by origins.volume.name
origins.volume.uuid	string	query	False	Filter by origins.volume.uuid
origins.state	string	query	False	Filter by origins.state
constituents_per_aggregate	integer	query	False	Filter by constituents_per_aggregate
path	string	query	False	Filter by path
name	string	query	False	Filter by name • maxLength: 203 • minLength: 1
dr_cache	boolean	query	False	Filter by dr_cache • Introduced in: 9.9
guarantee.type	string	query	False	Filter by guarantee.type • Introduced in: 9.7

Name	Type	In	Required	Description
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
global_file_locking_enabled	boolean	query	False	Filter by global_file_locking_enabled • Introduced in: 9.9
size	integer	query	False	Filter by size
uuid	string	query	False	Filter by uuid
writeback.enabled	boolean	query	False	Filter by writeback.enabled • Introduced in: 9.12
use_tiered_aggregate	boolean	query	False	Filter by use_tiered_aggregate • Introduced in: 9.8
relative_size.enabled	boolean	query	False	Filter by relative_size.enabled • Introduced in: 9.13
relative_size.percentage	integer	query	False	Filter by relative_size.percentage • Introduced in: 9.13
cifs_change_notify.enabled	boolean	query	False	Filter by cifs_change_notify.enabled • Introduced in: 9.14

Name	Type	In	Required	Description
aggregates.uuid	string	query	False	Filter by aggregates.uuid
aggregates.name	string	query	False	Filter by aggregates.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. • Default value: 1 • Max value: 120 • Min value: 0
fields	array[string]	query	False	Specify the fields to return.
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	_links	

Name	Type	Description
num_records	integer	Number of records
records	array[flexcache]	

Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "aggregates": [
        {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "aggr1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      ],
      "guarantee": {
        "type": "string"
      },
      "name": "vol1",
      "origins": [
        {
          "cluster": {
            "_links": {
              "self": {
                "href": "/api/resourcelink"
              }
            },
            "name": "cluster1",
            "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
          },
          "create_time": "2018-06-04 15:00:00 -0400",
```

```
          "ip_address": "10.10.10.7",
          "size": 0,
          "state": "string",
          "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"
          }
        }
      ],
      "path": "/user/my_fc",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}
```


Error

```
Status: Default, Error
```

Name	Type	Description
error	returned_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	href	
self	href	

_links

Name	Type	Description
self	href	

aggregates

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

atime_scrub

FlexCache volume atime-based scrub

Name	Type	Description
enabled	boolean	Specifies whether scrubbing of inactive files based on atime is enabled for the FlexCache volume. When scrubbing is enabled, files whose atime is older than the specified duration are evicted from the cache volume. The scrubber runs once a day and looks for files whose atime has exceeded the provisioned value.

Name	Type	Description
period	integer	Specifies the atime duration in days after which a cached file is considered inactive. Inactive files are purged from the FlexCache volumes when the scrubber runs once a day.

cifs_change_notify

Notifies that a change has been made to the FlexCache volume CIFS.

Name	Type	Description
enabled	boolean	Specifies whether a CIFS change notification is enabled for the FlexCache volume.

guarantee

Name	Type	Description
type	string	The type of space guarantee of this volume in the aggregate.

cluster

Name	Type	Description
_links	_links	
name	string	
uuid	string	

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	_links	
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.

volume

Name	Type	Description
_links	_links	
name	string	The name of the volume. This field cannot be specified in a POST or PATCH method.
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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

flexcache_relationship

Name	Type	Description
cluster	cluster	
create_time	string	Creation time of the relationship.
ip_address	string	Cluster managerment IP of the remote cluster.
size	integer	Size of the remote volume.
state	string	Volume state
svm	svm	SVM, applies only to SVM-scoped objects.
volume	volume	

prepopulate

FlexCache prepopulate

relative_size

FlexCache Relative Size

Name	Type	Description
enabled	boolean	Specifies whether the relative sizing is enabled for the FlexCache volume. Relative sizing is introduced as a part of follow the origin feature. When relative sizing is enabled, it blocks any modifications done manually in the absolute size of the FlexCache volume. The size of the FlexCache volume is calculated and entered automatically based on the size of the origin volume.
percentage	integer	Specifies the percent size the FlexCache volume should have relative to the total size of the origin volume. This property is only relevant to a FlexCache volume that has the relative size property enabled.

svm

FlexCache SVM

Name	Type	Description
_links	_links	
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.

writeback

FlexCache Writeback

Name	Type	Description
enabled	boolean	Indicates whether or not writeback is enabled for the FlexCache volume. Writeback is a storage method where data is first written to the FlexCache volume and then written to the origin of a FlexCache volume.

flexcache

Defines the cache endpoint of FlexCache.

Name	Type	Description
_links	_links	
aggregates	array[aggregates]	
atime_scrub	atime_scrub	FlexCache volume atime-based scrub
cifs_change_notify	cifs_change_notify	Notifies that a change has been made to the FlexCache volume CIFS.
constituents_per_aggregate	integer	Number of FlexCache constituents per aggregate when the 'aggregates' field is mentioned.
dr_cache	boolean	If set to true, a DR cache is created.
global_file_locking_enabled	boolean	Specifies whether or not a FlexCache volume has global file locking mode enabled. Global file locking mode is a mode where protocol read locking semantics are enforced across all FlexCaches and origins of a FlexCache volume. When global file locking mode is enabled, the "is_disconnected_mode_off_for_locks" flag is always set to "true".
guarantee	guarantee	
name	string	FlexCache name
origins	array[flexcache_relationship]	

Name	Type	Description
override_encryption	boolean	If set to true, a plaintext FlexCache volume for an encrypted origin volume is created.
path	string	The fully-qualified path in the owning SVM's namespace at which the FlexCache is mounted. The path is case insensitive and must be unique within a SVM's namespace. Path must begin with '/' and must not end with '/'. Only one FlexCache be mounted at any given junction path.
relative_size	relative_size	FlexCache Relative Size
size	integer	Physical size of the FlexCache. The recommended size for a FlexCache is 10% of the origin volume. The minimum FlexCache constituent size is 1GB.
svm	svm	FlexCache SVM
use_tiered_aggregate	boolean	Specifies whether or not a Fabricpool-enabled aggregate can be used in FlexCache creation. The use_tiered_aggregate is only used when auto-provisioning a FlexCache volume.
uuid	string	FlexCache UUID. Unique identifier for the FlexCache.
writeback	writeback	FlexCache Writeback

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Create a FlexCache volume in the cluster

POST `/storage/flexcache/flexcaches`

Introduced In: 9.6

Creates a FlexCache in the cluster.

Required properties

- `name` - Name of FlexCache volume.
- `origins.volume.name` or `origins.volume.uuid` - Name or UUID of origin volume.
- `origins.svm.name` - Name of origin Vserver.
- `svm.name` or `svm.uuid` - Name or UUID of Vserver where FlexCache will be created.

Recommended optional properties

- `path` - Path to mount the FlexCache volume
- `prepopulate.dir_paths` - List of directory-paths to be prepopulated for the FlexCache volume.
- `prepopulate.exclude_dir_paths` - List of directory-paths to be excluded from prepopulation for he FlexCache volume.

Default property values

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

- `size` - 10% of origin volume size or 1GB per constituent, whichever is greater.
- `guarantee.type` - none. FlexCache is thin provisioned by default.
- `constituents_per_aggregate` - 4 if aggregates.name or aggregates.uuid is used.
- `use_tiered_aggregate` - false if aggr-list is not used. This property is only used when auto-provisioning a FlexCache volume.
- `is_disconnected_mode_off_for_locks` - false. This property specifies if the origin will honor the cache side locks when doing the lock checks in the disconnected mode.

- `dr_cache` - false if FlexCache is not a DR cache. This property is used to create a DR FlexCache.
- `global_file_locking_enabled` - false. This property specifies whether global file locking is enabled on the FlexCache volume.
- `writeback.enabled` - false. This property specifies whether writeback is enabled for the FlexCache volume.
- `relative_size.enabled` - false. This property specifies whether the relative sizing is enabled for the FlexCache volume.
- `relative_size.percentage` - 10. This property specifies the percent size FlexCache volume should have relative to the total size of the origin volume.
- `override_encryption` - false. If true, this property is used to create a plaintext FlexCache volume for an encrypted origin volume.
- `atime_scrub.enabled` - false. This property specifies whether scrubbing of inactive files based on atime is enabled for the FlexCache volume.
- `atime_scrub.period` - 30. This property specifies the atime duration in days after which the file can be scrubbed from the FlexCache volume if it stays unused beyond the duration.
- `cifs_change_notify.enabled` - false. This property specifies whether a CIFS change notification is enabled for the FlexCache volume.

Related ONTAP commands

- `volume flexcache create`
- `volume flexcache prepopulate start`

Learn more

- DOC /storage/flexcache/flexcaches

Parameters

Name	Type	In	Required	Description
return_timeout	integer	query	False	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. • Default value: 1 • Max value: 120 • Min value: 0
return_records	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Request Body

Name	Type	Description
aggregates	array[aggregates]	
atime_scrub	atime_scrub	FlexCache volume atime-based scrub

Name	Type	Description
cifs_change_notify	cifs_change_notify	Notifies that a change has been made to the FlexCache volume CIFS.
constituents_per_aggregate	integer	Number of FlexCache constituents per aggregate when the 'aggregates' field is mentioned.
dr_cache	boolean	If set to true, a DR cache is created.
global_file_locking_enabled	boolean	Specifies whether or not a FlexCache volume has global file locking mode enabled. Global file locking mode is a mode where protocol read locking semantics are enforced across all FlexCaches and origins of a FlexCache volume. When global file locking mode is enabled, the "is_disconnected_mode_off_for_locks" flag is always set to "true".
guarantee	guarantee	
name	string	FlexCache name
origins	array[flexcache_relationship]	
override_encryption	boolean	If set to true, a plaintext FlexCache volume for an encrypted origin volume is created.
path	string	The fully-qualified path in the owning SVM’s namespace at which the FlexCache is mounted. The path is case insensitive and must be unique within a SVM’s namespace. Path must begin with '/' and must not end with '/'. Only one FlexCache be mounted at any given junction path.
prepopulate	prepopulate	FlexCache prepopulate
relative_size	relative_size	FlexCache Relative Size

Name	Type	Description
size	integer	Physical size of the FlexCache. The recommended size for a FlexCache is 10% of the origin volume. The minimum FlexCache constituent size is 1GB.
svm	svm	FlexCache SVM
use_tiered_aggregate	boolean	Specifies whether or not a Fabricpool-enabled aggregate can be used in FlexCache creation. The use_tiered_aggregate is only used when auto-provisioning a FlexCache volume.
uuid	string	FlexCache UUID. Unique identifier for the FlexCache.
writeback	writeback	FlexCache Writeback

Example request


```
{
  "aggregates": [
    {
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "guarantee": {
    "type": "string"
  },
  "name": "vol1",
  "origins": [
    {
      "cluster": {
        "name": "cluster1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "create_time": "2018-06-04 15:00:00 -0400",
      "ip_address": "10.10.10.7",
      "size": 0,
      "state": "string",
      "svm": {
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "volume": {
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
      }
    }
  ],
  "path": "/user/my_fc",
  "prepopulate": {
    "dir_paths": [
      "/dir1"
    ],
    "exclude_dir_paths": [
      "/dir1/dir2"
    ]
  },
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
```

```
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Response

```
Status: 202, Accepted
```

Name	Type	Description
job	job_link	

Example response

```
{
  "job": {
    "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
66846735	The peer state of the relationship is not peered or the FlexCache application is not supported by the relationship

Error Code	Description
66846762	The origin volume in the SVM is offline
66846863	The preserve-msid parameter is not supported when creating the FlexCache volume in the same SVM as the origin of a FlexCache volume
66846870	Either the SVM name or origin volume name is missing
66846871	Constituents per aggregate are specified but aggregate name is missing
66846872	More than one origin volume is specified
66846873	The specified SVM UUID is incorrect for the specified SVM name
66846874	The specified aggregate UUID is incorrect for the specified aggregate name
66846875	The specified aggregate name does not exist
66846876	The specified SVM does not exist or is not peered
66846877	The specified origin SVM name is of zero length
66846878	The specified SVM UUID is invalid
66846730	Failed to create a FlexCache volume
66846760	The specified SVM is not a data Vserver
66846787	The specified aggregate is a SnapLock aggregate
66846812	The specified aggregate is a Composite aggregate
66846812	The specified junction path is under a FlexCache volume
66846834	FlexCache encryption requires a cluster version of 9.6 or higher
66846835	A volume encryption license is not found
66847013	Creating a FlexCache volume with override-encryption property set to true requires an effective cluster version of 9.14.0 or later on both origin and cache clusters

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

aggregates

Aggregate

Name	Type	Description
name	string	
uuid	string	

atime_scrub

FlexCache volume atime-based scrub

Name	Type	Description
enabled	boolean	Specifies whether scrubbing of inactive files based on atime is enabled for the FlexCache volume. When scrubbing is enabled, files whose atime is older than the specified duration are evicted from the cache volume. The scrubber runs once a day and looks for files whose atime has exceeded the provisioned value.
period	integer	Specifies the atime duration in days after which a cached file is considered inactive. Inactive files are purged from the FlexCache volumes when the scrubber runs once a day.

cifs_change_notify

Notifies that a change has been made to the FlexCache volume CIFS.

Name	Type	Description
enabled	boolean	Specifies whether a CIFS change notification is enabled for the FlexCache volume.

guarantee

Name	Type	Description
type	string	The type of space guarantee of this volume in the aggregate.

cluster

Name	Type	Description
name	string	
uuid	string	

svm

SVM, applies only to SVM-scoped objects.

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.

volume

Name	Type	Description
name	string	The name of the volume. This field cannot be specified in a POST or PATCH method.

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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

flexcache_relationship

Name	Type	Description
cluster	cluster	
create_time	string	Creation time of the relationship.
ip_address	string	Cluster managerment IP of the remote cluster.
size	integer	Size of the remote volume.
state	string	Volume state
svm	svm	SVM, applies only to SVM-scoped objects.
volume	volume	

prepopulate

FlexCache prepopulate

Name	Type	Description
dir_paths	array[string]	
exclude_dir_paths	array[string]	
recurse	boolean	Specifies whether or not the prepopulate action should search through the `dir_paths` recursively. If not set, the default value *true* is used.

relative_size

FlexCache Relative Size

Name	Type	Description
enabled	boolean	Specifies whether the relative sizing is enabled for the FlexCache volume. Relative sizing is introduced as a part of follow the origin feature. When relative sizing is enabled, it blocks any modifications done manually in the absolute size of the FlexCache volume. The size of the FlexCache volume is calculated and entered automatically based on the size of the origin volume.
percentage	integer	Specifies the percent size the FlexCache volume should have relative to the total size of the origin volume. This property is only relevant to a FlexCache volume that has the relative size property enabled.

svm

FlexCache SVM

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.

writeback

FlexCache Writeback

Name	Type	Description
enabled	boolean	Indicates whether or not writeback is enabled for the FlexCache volume. Writeback is a storage method where data is first written to the FlexCache volume and then written to the origin of a FlexCache volume.

flexcache

Defines the cache endpoint of FlexCache.

Name	Type	Description
aggregates	array[aggregates]	
atime_scrub	atime_scrub	FlexCache volume atime-based scrub
cifs_change_notify	cifs_change_notify	Notifies that a change has been made to the FlexCache volume CIFS.
constituents_per_aggregate	integer	Number of FlexCache constituents per aggregate when the 'aggregates' field is mentioned.
dr_cache	boolean	If set to true, a DR cache is created.
global_file_locking_enabled	boolean	Specifies whether or not a FlexCache volume has global file locking mode enabled. Global file locking mode is a mode where protocol read locking semantics are enforced across all FlexCaches and origins of a FlexCache volume. When global file locking mode is enabled, the "is_disconnected_mode_off_for_locks" flag is always set to "true".
guarantee	guarantee	
name	string	FlexCache name
origins	array[flexcache_relationship]	

Name	Type	Description
override_encryption	boolean	If set to true, a plaintext FlexCache volume for an encrypted origin volume is created.
path	string	The fully-qualified path in the owning SVM's namespace at which the FlexCache is mounted. The path is case insensitive and must be unique within a SVM's namespace. Path must begin with '/' and must not end with '/'. Only one FlexCache be mounted at any given junction path.
prepopulate	prepopulate	FlexCache prepopulate
relative_size	relative_size	FlexCache Relative Size
size	integer	Physical size of the FlexCache. The recommended size for a FlexCache is 10% of the origin volume. The minimum FlexCache constituent size is 1GB.
svm	svm	FlexCache SVM
use_tiered_aggregate	boolean	Specifies whether or not a Fabricpool-enabled aggregate can be used in FlexCache creation. The use_tiered_aggregate is only used when auto-provisioning a FlexCache volume.
uuid	string	FlexCache UUID. Unique identifier for the FlexCache.
writeback	writeback	FlexCache Writeback

job_link

Name	Type	Description
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[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Delete a FlexCache volume

DELETE `/storage/flexcache/flexcaches/{uuid}`

Introduced In: 9.6

Deletes a FlexCache. If a FlexCache volume is online, it is offlined before deletion.

Related ONTAP commands

- `volume flexcache delete`

Learn more

- DOC /storage/flexcache/flexcaches

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Unique identifier of the FlexCache.

Name	Type	In	Required	Description
return_timeout	integer	query	False	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. • Default value: 1 • Max value: 120 • Min value: 0

Response

```
Status: 200, Ok
```

Name	Type	Description
job	job_link	

Example response


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


Response

```
Status: 202, Accepted
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
66846879	The specified volume UUID is not a FlexCache volume
66846731	Failed to delete the FlexCache volume
524546	Failed to delete the FlexCache volume because the FlexCache volume is not unmounted

Name	Type	Description
error	returned_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	href	

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[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Retrieve attributes of the FlexCache volume in the cluster

GET `/storage/flexcache/flexcaches/{uuid}`

Introduced In: 9.6

Retrieves attributes of the FlexCache in the cluster.

Expensive properties

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

- `origins.ip_address` - IP address of origin.
- `origins.size` - Physical size of origin.
- `origins.state` - State of origin.
- `size` - Physical size of FlexCache.
- `guarantee.type` - Space guarantee style of FlexCache.
- `aggregates.name` or `aggregates.uuid` - Name or UUID of aggregrate of FlexCache volume.
- `path` - Fully-qualified path of the owning SVM's namespace where the FlexCache is mounted.

Related ONTAP commands

- `volume flexcache show`

Learn more

- DOC /storage/flexcache/flexcaches

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Unique identifier of FlexCache.
fields	array[string]	query	False	Specify the fields to return.

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
aggregates	array[aggregates]	

Name	Type	Description
atime_scrub	atime_scrub	FlexCache volume atime-based scrub
cifs_change_notify	cifs_change_notify	Notifies that a change has been made to the FlexCache volume CIFS.
constituents_per_aggregate	integer	Number of FlexCache constituents per aggregate when the 'aggregates' field is mentioned.
dr_cache	boolean	If set to true, a DR cache is created.
global_file_locking_enabled	boolean	Specifies whether or not a FlexCache volume has global file locking mode enabled. Global file locking mode is a mode where protocol read locking semantics are enforced across all FlexCaches and origins of a FlexCache volume. When global file locking mode is enabled, the "is_disconnected_mode_off_for_locks" flag is always set to "true".
guarantee	guarantee	
name	string	FlexCache name
origins	array[flexcache_relationship]	
override_encryption	boolean	If set to true, a plaintext FlexCache volume for an encrypted origin volume is created.
path	string	The fully-qualified path in the owning SVM’s namespace at which the FlexCache is mounted. The path is case insensitive and must be unique within a SVM’s namespace. Path must begin with '/' and must not end with '/'. Only one FlexCache be mounted at any given junction path.
relative_size	relative_size	FlexCache Relative Size

Name	Type	Description
size	integer	Physical size of the FlexCache. The recommended size for a FlexCache is 10% of the origin volume. The minimum FlexCache constituent size is 1GB.
svm	svm	FlexCache SVM
use_tiered_aggregate	boolean	Specifies whether or not a Fabricpool-enabled aggregate can be used in FlexCache creation. The use_tiered_aggregate is only used when auto-provisioning a FlexCache volume.
uuid	string	FlexCache UUID. Unique identifier for the FlexCache.
writeback	writeback	FlexCache Writeback

Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "aggregates": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "guarantee": {
    "type": "string"
  },
  "name": "vol1",
  "origins": [
    {
      "cluster": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "cluster1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "create_time": "2018-06-04 15:00:00 -0400",
      "ip_address": "10.10.10.7",
      "size": 0,
      "state": "string",
      "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"
      }
    }
  ],
  "path": "/user/my_fc",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```


Error

```
Status: Default, Error
```

Name	Type	Description
error	returned_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	href	

aggregates

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

atime_scrub

FlexCache volume atime-based scrub

Name	Type	Description
enabled	boolean	Specifies whether scrubbing of inactive files based on atime is enabled for the FlexCache volume. When scrubbing is enabled, files whose atime is older than the specified duration are evicted from the cache volume. The scrubber runs once a day and looks for files whose atime has exceeded the provisioned value.
period	integer	Specifies the atime duration in days after which a cached file is considered inactive. Inactive files are purged from the FlexCache volumes when the scrubber runs once a day.

cifs_change_notify

Notifies that a change has been made to the FlexCache volume CIFS.

Name	Type	Description
enabled	boolean	Specifies whether a CIFS change notification is enabled for the FlexCache volume.

guarantee

Name	Type	Description
type	string	The type of space guarantee of this volume in the aggregate.

cluster

Name	Type	Description
_links	_links	
name	string	
uuid	string	

svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	_links	
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.

volume

Name	Type	Description
_links	_links	
name	string	The name of the volume. This field cannot be specified in a POST or PATCH method.

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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

flexcache_relationship

Name	Type	Description
cluster	cluster	
create_time	string	Creation time of the relationship.
ip_address	string	Cluster managerment IP of the remote cluster.
size	integer	Size of the remote volume.
state	string	Volume state
svm	svm	SVM, applies only to SVM-scoped objects.
volume	volume	

prepopulate

FlexCache prepopulate

relative_size

FlexCache Relative Size

Name	Type	Description
enabled	boolean	Specifies whether the relative sizing is enabled for the FlexCache volume. Relative sizing is introduced as a part of follow the origin feature. When relative sizing is enabled, it blocks any modifications done manually in the absolute size of the FlexCache volume. The size of the FlexCache volume is calculated and entered automatically based on the size of the origin volume.
percentage	integer	Specifies the percent size the FlexCache volume should have relative to the total size of the origin volume. This property is only relevant to a FlexCache volume that has the relative size property enabled.

svm

FlexCache SVM

Name	Type	Description
_links	_links	
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.

writeback

FlexCache Writeback

Name	Type	Description
enabled	boolean	Indicates whether or not writeback is enabled for the FlexCache volume. Writeback is a storage method where data is first written to the FlexCache volume and then written to the origin of a FlexCache volume.

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Pre-populate a FlexCache volume in the cluster

PATCH `/storage/flexcache/flexcaches/{uuid}`

Introduced In: 9.8

Prepopulates a FlexCache volume in the cluster, or modifies configuration of the FlexCache volume.

Required properties

- `uuid` - FlexCache volume UUID.

Recommended optional properties

- `prepopulate.exclude_dir_paths` - List of directory-paths to be excluded from prepopulation for the FlexCache volume.

- `prepopulate.dir_paths` - List of directory-paths to be prepopulated for the FlexCache volume.
- `writeback.enabled` - false. This property specifies whether writeback is enabled for the FlexCache volume.
- `relative_size.enabled` - This property specifies whether the relative sizing is enabled for the FlexCache volume.
- `relative_size.percentage` - This property specifies the percent size FlexCache volume should have relative to the total size of the origin volume.
- `atime_scrub.enabled` - This property specifies whether the atime based scrub is enabled for the FlexCache volume.
- `atime_scrub.period` - This property specifies the duration in days after which inactive files can be scrubbed from FlexCache volume.
- `cifs_change_notify.enabled` - This property specifies whether a CIFS change notification is enabled for the FlexCache volume.

Default property values

If not specified in PATCH, the following default property value is assigned:

- `prepopulate.recurse` - Default value is "true".

Related ONTAP commands

- `volume flexcache prepopulate start`
- `volume flexcache config modify`

Learn more

- DOC /storage/flexcache/flexcaches

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Unique identifier of the FlexCache volume.

Name	Type	In	Required	Description
return_timeout	integer	query	False	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. • Default value: 1 • Max value: 120 • Min value: 0

Request Body

Name	Type	Description
atime_scrub	atime_scrub	FlexCache volume atime-based scrub
cifs_change_notify	cifs_change_notify	Notifies that a change has been made to the FlexCache volume CIFS.
prepopulate	prepopulate	FlexCache prepopulate
relative_size	relative_size	FlexCache Relative Size

Name	Type	Description
uuid	string	FlexCache UUID. Unique identifier for the FlexCache.
writeback	writeback	FlexCache Writeback

Example request

```
{
  "dr_cache": true,
  "global_file_locking_enabled": true,
  "override_encryption": true,
  "prepopulate": {
    "dir_paths": [
      "/dir1"
    ],
    "exclude_dir_paths": [
      "/dir1/dir2"
    ]
  },
  "use_tiered_aggregate": true,
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Response

```
Status: 200, Ok
```

Name	Type	Description
job	job_link	

Example response

```
{
  "job": {
    "uuid": "string"
  }
}
```

Response

```
Status: 202, Accepted
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
66846921	Failed to prepopulate. Empty path list
66846922	FlexCache volume does not exist in the SVM
66846923	Failed to prepopulate FlexCache volume because the origin volume is not reachable
66846924	FlexCache volume is offline
66846925	FlexCache volume is not mounted or the junction-path is not active
66846926	The junction-path of FlexCache volume is not active
66846927	FlexCache volume does not have an origin volume
66846928	FlexCache volume does not exist
66846929	Using FlexCache prepopulate requires an effective cluster version of 9.8.0 or later
66846930	Using FlexCache prepopulate in a MetroCluster configuration requires an effective cluster version of 9.8.0 or later on both the local and remote clusters
66846931	Internal Error. FlexCache prepopulate job queue failed. Wait a few minutes, and then try the operation again
66846936	Failed to lookup root file handle for origin of FlexCache volume. Wait a few minutes, and then try the operation again
66846937	Internal error. Failed to initialize thread
66846939	Internal error. Failed to get the MSID of the origin volume for FlexCache volume
66846943	Failed to prepopulate because dir_path does not exist
66846944	Failed to get root constituent for FlexCache volume
66846945	Origin of FlexCache volume is not mounted or the junction-path is not active

Error Code	Description
66846946	The junction-path of origin of FlexCache volume is not active
66846947	FlexCache prepopulate job for FlexCache volume already exists
66846948	FlexCache prepopulate job for FlexCache volume could not be queued because the node is offline
66846958	Exclude path(s) does not exist in origin volume
66846988	Cannot enable writeback for FlexCache volume because the origin is a data protection volume. Writeback is only supported on FlexCache volumes with origins that are read-write volumes
66846995	Using FlexCache relative-size requires an effective cluster version of 9.13.1 or later
66846997	Failed to modify the relative-size-percentage property of the FlexCache volume because the used size of the FlexCache Volume is greater than the newly calculated size based on the value of the relative-size-percentage property
66846997	Failed to modify the relative-size-percentage property of FlexCache volume because the relative-size-percentage property is not valid
66846998	Failed to modify the relative-size-percentage property of FlexCache volume because the is-relative-size-enabled property is false
66847010	Failed to modify the relative-size-percentage property of FlexCache volume because autosize is enabled on the FlexCache volume
66847026	Failed to enable the atime-scrub-enabled property for the FlexCache volume because the atime-update-property is false
66847027	Failed to modify atime-scrub-period property of the FlexCache volume because the atime-scrub-enabled property is false

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

aggregates

Aggregate

Name	Type	Description
name	string	
uuid	string	

atime_scrub

FlexCache volume atime-based scrub

Name	Type	Description
enabled	boolean	Specifies whether scrubbing of inactive files based on atime is enabled for the FlexCache volume. When scrubbing is enabled, files whose atime is older than the specified duration are evicted from the cache volume. The scrubber runs once a day and looks for files whose atime has exceeded the provisioned value.
period	integer	Specifies the atime duration in days after which a cached file is considered inactive. Inactive files are purged from the FlexCache volumes when the scrubber runs once a day.

cifs_change_notify

Notifies that a change has been made to the FlexCache volume CIFS.

Name	Type	Description
enabled	boolean	Specifies whether a CIFS change notification is enabled for the FlexCache volume.

guarantee

Name	Type	Description
type	string	The type of space guarantee of this volume in the aggregate.

cluster

Name	Type	Description
name	string	
uuid	string	

svm

SVM, applies only to SVM-scoped objects.

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.

volume

Name	Type	Description
name	string	The name of the volume. This field cannot be specified in a POST or PATCH method.

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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

flexcache_relationship

Name	Type	Description
cluster	cluster	
create_time	string	Creation time of the relationship.
ip_address	string	Cluster managerment IP of the remote cluster.
size	integer	Size of the remote volume.
state	string	Volume state
volume	volume	

prepopulate

FlexCache prepopulate

Name	Type	Description
dir_paths	array[string]	
exclude_dir_paths	array[string]	
recurse	boolean	Specifies whether or not the prepopulate action should search through the `dir_paths` recursively. If not set, the default value *true* is used.

relative_size

FlexCache Relative Size

Name	Type	Description
enabled	boolean	Specifies whether the relative sizing is enabled for the FlexCache volume. Relative sizing is introduced as a part of follow the origin feature. When relative sizing is enabled, it blocks any modifications done manually in the absolute size of the FlexCache volume. The size of the FlexCache volume is calculated and entered automatically based on the size of the origin volume.
percentage	integer	Specifies the percent size the FlexCache volume should have relative to the total size of the origin volume. This property is only relevant to a FlexCache volume that has the relative size property enabled.

svm

FlexCache SVM

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.

writeback

FlexCache Writeback

Name	Type	Description
enabled	boolean	Indicates whether or not writeback is enabled for the FlexCache volume. Writeback is a storage method where data is first written to the FlexCache volume and then written to the origin of a FlexCache volume.

flexcache

Defines the cache endpoint of FlexCache.

Name	Type	Description
atime_scrub	atime_scrub	FlexCache volume atime-based scrub
cifs_change_notify	cifs_change_notify	Notifies that a change has been made to the FlexCache volume CIFS.
prepopulate	prepopulate	FlexCache prepopulate
relative_size	relative_size	FlexCache Relative Size
uuid	string	FlexCache UUID. Unique identifier for the FlexCache.
writeback	writeback	FlexCache Writeback

job_link

Name	Type	Description
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[error_arguments]	Message arguments
code	string	Error code
message	string	Error message

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

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