



Manage storage file clones

ONTAP 9.14.1 REST API reference

NetApp
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Table of Contents

- Manage storage file clones 1
 - Storage file clone endpoint overview 1
 - Create a clone of the file 1
 - Retrieve the clone split load of a node 9
 - Retrieve the volume file clone split load 16
 - Update the maximum split load 20
 - Retrieve file clone split status of all volumes in the node 24
 - Retrieve file clone split status of all volumes 32
 - Retrieve information for a token 38
 - Create a new token to reserve the split load 45
 - Delete a specific file clone token 51
 - Retrieve a file clone token 53
 - Update a file clone token 58

Manage storage file clones

Storage file clone endpoint overview

Overview

You can use these API's to create file clones, retrieve split status and manage split loads. These endpoints are used for cloning files within a volume, without taking much of extra space. Child and parent clones shares the unchanged blocks of data.

A file clone split operation detach child clone from its parent. Split operations use space. To ensure that file clone create operation is not affected by split, file clone tokens are use to reserve space. API endpoints can be used to update the validity and space reserved by token.

File clone APIs

The following APIs are used to perform the following operations:

– POST `/api/storage/file/clone`

– GET `/api/storage/file/clone/split-status`

– PATCH `/api/storage/file/clone/split-loads/{node.uuid}`

– GET `/api/storage/file/clone/split-loads/{node.uuid}`

– GET `/api/storage/file/clone/split-loads`

– GET `/api/storage/file/clone/tokens/`

– DELETE `/api/storage/file/clone/tokens/{node.uuid}/{token.uuid}`

– PATCH `/api/storage/file/clone/tokens/{node.uuid}/{token.uuid}`

Create a clone of the file

POST `/storage/file/clone`

Introduced In: 9.6

Creates a clone of the file.

Required Properties

- `source_path`
- `destination_path`
- `volume.uuid` and `volume.name` - Instance UUID and name of volume in which to create clone.

Optional Properties

- `range` - Required only in the case of a sub file clone.
- `autodelete` - Marks a cloned file for auto deletion.
- `backup` - Cloned file is used as a backup.

Related Ontap commands

- `volume file clone create`

Creating file clones

The POST operation is used to create file clones with the specified attributes in body. Set the `volume.name` and `volume.uuid` to identify the volume.

Set `source_path` and `destination_path` to identify the file path of original and copied file. In case of full file clone, the new file is created using `destination_path`. In case of a sub file clone, set `range` in the format `source-file-block-number:destination-file-block-number:block-count`. The API returns an error for the following overlapping conditions: (a) if source and destination files are same and any of the source ranges overlap with any of the destination ranges. (b) if any of the source ranges overlap amongst themselves. (c) if any of the destination ranges overlap amongst themselves. If not provided, full file cloning is assumed.

If set to `autodelete`, the cloned file is deleted when the volumes are full.

```
# The API:
curl -X POST "https://<mgmt_ip>/api/storage/file/clone" -H "accept:
application/hal+json" -d '{"volume": {"name": "vol1", "uuid": "40e0fdc5-
c28f-11eb-8270-005056bbeb0b"}, "source_path": "f1", "destination_path":
"f2_c1"}'
```

```
# The response:
{
  "job": {
    "uuid": "0d025fd9-c4dc-11eb-adb5-005056bbeb0b",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/0d025fd9-c4dc-11eb-adb5-005056bbeb0b"
      }
    }
  }
}
```

Learn More

- [\[DOC /storage/file/clone\]](#)

Parameters

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

Request Body

Name	Type	Description
autodelete	boolean	Mark clone file for auto deletion.

Name	Type	Description
destination_path	string	Relative path of the clone/destination file in the volume.
is_backup	boolean	Mark clone file for backup.
overwrite_destination	boolean	Destination file gets overwritten.
range	array[string]	List of block ranges for sub-file cloning in the format "source-file-block-number:destination-file-block-number:block-count"
source_path	string	Relative path of the source file in the volume.
token_uuid	string	UUID of existing clone token with reserved split load.
volume	volume	

Example request

```
{
  "destination_path": "dest_file1, dir1/dest_file2",
  "range": 36605,
  "source_path": "src_file1, dir1/src_file2,
  ../.snapshot/snap1/src_file3",
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volumel",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

Example response

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

Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

Response

Status: 201, Created

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
917898	Invalid value <code>value</code> for the field <code>-range</code> . Value must be provided in the format <code><source start block>:<destination start block>:<block length></code> .
918236	The specified <code>volume.uuid</code> and <code>volume.name</code> refer to different volumes.
13565952	Clone start failed.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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	

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. <ul style="list-style-type: none">• example: 028baa66-41bd-11e9-81d5-00a0986138f7• Introduced in: 9.6• x-nullable: true

file_clone

File clone

Name	Type	Description
autodelete	boolean	Mark clone file for auto deletion.
destination_path	string	Relative path of the clone/destination file in the volume.
is_backup	boolean	Mark clone file for backup.
overwrite_destination	boolean	Destination file gets overwritten.

Name	Type	Description
range	array[string]	List of block ranges for sub-file cloning in the format "source-file-block-number:destination-file-block-number:block-count"
source_path	string	Relative path of the source file in the volume.
token_uuid	string	UUID of existing clone token with reserved split load.
volume	volume	

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 the clone split load of a node

GET /storage/file/clone/split-loads

Introduced In: 9.10

Retrieves the clone split load of a node.

Related Ontap Commands

- volume file clone split load show

Retrieving file clone split load related information

The GET operation can be used to retrieve information about clone split load data. Split load data is the data currently undergoing the split. There is a limit on split load data. This API communicates how much data is undergoing split and how much can still be processed.


```
# The API:
/api/storage/file/clone/split-loads

# The call:
curl -X GET "https://<mgmt_ip>/api/storage/file/clone/split-loads" -H
"accept: application/hal+json"

# The response:
{
  "records": [
    {
      "node": {
        "uuid": "158d592f-a829-11eb-a47b-005056bb46d7",
        "name": "node1",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/158d592f-a829-11eb-a47b-
005056bb46d7"
          }
        }
      },
      "load": {
        "maximum": 35184372088832,
        "current": 0,
        "token_reserved": 0,
        "allowable": 35184372088832
      },
      "_links": {
        "self": {
```

```

    "href": "/api/storage/file/clone/split-loads/158d592f-a829-11eb-
a47b-005056bb46d7"
  }
}
},
{
  "node": {
    "uuid": "9686b8d1-a828-11eb-80d8-005056bbe7b6",
    "name": "node2",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/9686b8d1-a828-11eb-80d8-
005056bbe7b6"
      }
    }
  },
  "load": {
    "maximum": 35184372088832,
    "current": 0,
    "token_reserved": 0,
    "allowable": 35184372088832
  },
  "_links": {
    "self": {
      "href": "/api/storage/file/clone/split-loads/9686b8d1-a828-11eb-
80d8-005056bbe7b6"
    }
  }
}
],
"num_records": 2,
"_links":
  "self": {
    "href": "/api/storage/file/clone/split-loads"
  }
}
}

```

Learn More

- [\[DOC /storage/file/clone\]](#)

Parameters

Name	Type	In	Required	Description
load.current	integer	query	False	Filter by load.current
load.token_reserved	integer	query	False	Filter by load.token_reserved
load.allowable	integer	query	False	Filter by load.allowable
load.maximum	integer	query	False	Filter by load.maximum
node.name	string	query	False	Filter by node.name
node.uuid	string	query	False	Filter by node.uuid
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"> • Default value: 1
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"> • Default value: 1 • Max value: 120 • Min value: 0

Name	Type	In	Required	Description
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

Status: 200, Ok

Name	Type	Description
_links	collection_links	
num_records	integer	Number of records.
records	array[split_load]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "load": {
      "allowable": 0,
      "current": 0,
      "maximum": 4096,
      "token_reserved": 0
    },
    "node": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "node1",
      "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	

collection_links

Name	Type	Description
next	href	
self	href	

self_link

Name	Type	Description
self	href	

load

Name	Type	Description
allowable	integer	Specifies the available file clone split load on the node.
current	integer	Specifies the current on-going file clone split load on the node.
maximum	integer	Specifies the maximum allowable file clone split load on the node at any point in time.
token_reserved	integer	Specifies the file clone split load on the node reserved for tokens.

_links

Name	Type	Description
self	href	

node

Name	Type	Description
_links	_links	
name	string	

Name	Type	Description
uuid	string	

split_load

Name	Type	Description
_links	self_link	
load	load	
node	node	

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 the volume file clone split load

GET /storage/file/clone/split-loads/{node.uuid}

Introduced In: 9.10

Retrieve Volume File Clone Split Load REST

Parameters

Name	Type	In	Required	Description
node.uuid	string	path	True	Node Uuid

Name	Type	In	Required	Description
fields	array[string]	query	False	Specify the fields to return.

Response

Status: 200, Ok

Name	Type	Description
_links	self_link	
load	load	
node	node	

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "load": {
    "allowable": 0,
    "current": 0,
    "maximum": 4096,
    "token_reserved": 0
  },
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "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	

self_link

Name	Type	Description
self	href	

load

Name	Type	Description
allowable	integer	Specifies the available file clone split load on the node.
current	integer	Specifies the current on-going file clone split load on the node.
maximum	integer	Specifies the maximum allowable file clone split load on the node at any point in time.
token_reserved	integer	Specifies the file clone split load on the node reserved for tokens.

_links

Name	Type	Description
self	href	

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

error_arguments

Name	Type	Description
code	string	Argument code

Name	Type	Description
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.

Update the maximum split load

```
PATCH /storage/file/clone/split-loads/{node.uuid}
```

Introduced In: 9.10

Updates the maximum split load.

Related Ontap command

- `volume file clone split load modify`

Learn More

- [\[DOC /storage/file/clone\]](#)

```
# The call:
curl -X PATCH "https://<mgmt_IP>/api/storage/file/clone/split-loads/9686b8d1-a828-11eb-80d8-005056bbe7b6" -d '{"load": {"maximum": "16TB" } }'
```

```
# The response to successful patch is empty body
```

Parameters

Name	Type	In	Required	Description
node.uuid	string	path	True	Node UUID

Request Body

Name	Type	Description
_links	self_link	
load	load	
node	node	

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "load": {
    "allowable": 0,
    "current": 0,
    "maximum": 4096,
    "token_reserved": 0
  },
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
}
```

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
13565966	Failed to modify the maximum split load on the node due to an invalid field value.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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	

self_link

Name	Type	Description
self	href	

load

Name	Type	Description
allowable	integer	Specifies the available file clone split load on the node.
current	integer	Specifies the current on-going file clone split load on the node.
maximum	integer	Specifies the maximum allowable file clone split load on the node at any point in time.
token_reserved	integer	Specifies the file clone split load on the node reserved for tokens.

_links

Name	Type	Description
self	href	

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

split_load

Name	Type	Description
_links	self_link	

Name	Type	Description
load	load	
node	node	

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 file clone split status of all volumes in the node

GET /storage/file/clone/split-status

Introduced In: 9.10

Retrieves file clone split status of all volumes in the node.

Learn More

- [\[DOC /storage/file/clone\]](#)

```
# The API:
/api/storage/file/clone/split-status

# The call:
curl -X GET "https://<mgmt_ip>/api/storage/file/clone/split-status" -H
"accept: application/hal+json"

# The response:
```

```

{
  "records": [
    {
      "volume": {
        "uuid": "ac559964-57a3-40cf-b5cb-f3cb99151a7d",
        "name": "vol1",
        "_links": {
          "self": {
            "href": "/api/storage/volumes/ac559964-57a3-40cf-b5cb-
f3cb99151a7d"
          }
        }
      },
      "svm": {
        "name": "vs1"
      },
      "pending_splits": 0,
      "unsplit_clone_size": 0,
      "_links": {
        "self": {
          "href": "/api/storage/file/clone/split-status/ac559964-57a3-40cf-
b5cb-f3cb99151a7d"
        }
      }
    },
    {
      "volume": {
        "uuid": "32d95d48-d8b7-11eb-a41d-005056bb3837",
        "name": "vs1_root",
        "_links": {
          "self": {
            "href": "/api/storage/volumes/32d95d48-d8b7-11eb-a41d-
005056bb3837"
          }
        }
      },
      "svm": {
        "name": "vs1"
      },
      "pending_splits": 0,
      "unsplit_clone_size": 0,
      "_links": {
        "self": {
          "href": "/api/storage/file/clone/split-status/32d95d48-d8b7-11eb-
a41d-005056bb3837"
        }
      }
    }
  ]
}

```

```

    }
  }
],
"num_records": 2,
"_links": {
  "self": {
    "href": "/api/storage/file/clone/split-status"
  }
}
}
}

```

Parameters

Name	Type	In	Required	Description
pending_splits	integer	query	False	Filter by pending_splits
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
unsplit_clone_size	integer	query	False	Filter by unsplit_clone_size
volume.name	string	query	False	Filter by volume.name
volume.uuid	string	query	False	Filter by volume.uuid
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"> • Default value: 1

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

Response

Status: 200, Ok

Name	Type	Description
_links	collection_links	
num_records	integer	Number of Records
records	array[split_status]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "pending_splits": 0,
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    },
    "unsplit_clone_size": 0,
    "volume": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "volume1",
      "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
    }
  }
}
```

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	

collection_links

Name	Type	Description
next	href	
self	href	

self_link

Name	Type	Description
self	href	

_links

Name	Type	Description
self	href	

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	<p>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.</p> <ul style="list-style-type: none"> • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

split_status

Name	Type	Description
_links	self_link	
pending_splits	integer	Specifies the number of pending file clone split operations in the volume.
svm	svm	SVM, applies only to SVM-scoped objects.
unsplit_clone_size	integer	Specifies the space occupied by unsplit file clones in the volume.
volume	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

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

Retrieve file clone split status of all volumes

GET /storage/file/clone/split-status/{volume.uuid}

Introduced In: 9.10

Retrieves file clone split status of all volumes in the node.

Related Ontap commands

- `volume file clone split status`

Learn More

- [\[DOC /storage/file/clone\]](#)

Retrieves the information of split status.

The GET operation retrieves information about split processes in the volume.
 `pending-clone-splits` is the number of files for which file clone split is not yet completed.
 `unsplit-size` is the sum of all sizes, in bytes in the volume that is not split.


```

# The API:
/api/storage/file/clone/split-status/{volume.uuid}

# The call:
curl -X GET "https://<mgmt_ip>/api/storage/file/clone/split-
status/ac559964-57a3-40cf-b5cb-f3cb99151a7d" -H "accept:
application/hal+json"

# The response:
{
  "volume": {
    "uuid": "ac559964-57a3-40cf-b5cb-f3cb99151a7d",
    "name": "voll1",
    "_links": {
      "self": {
        "href": "/api/storage/volumes/ac559964-57a3-40cf-b5cb-f3cb99151a7d"
      }
    }
  },
  "svm": {
    "name": "vs1"
  },
  "pending_splits": 0,
  "unsplit_clone_size": 0,
  "_links": {
    "self": {
      "href": "/api/storage/file/clone/split-status/ac559964-57a3-40cf-b5cb-
f3cb99151a7d"
    }
  }
}

```

Parameters

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

Response

Status: 200, Ok

Name	Type	Description
_links	self_link	
pending_splits	integer	Specifies the number of pending file clone split operations in the volume.
svm	svm	SVM, applies only to SVM-scoped objects.
unsplit_clone_size	integer	Specifies the space occupied by unsplit file clones in the volume.
volume	volume	

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "pending_splits": 0,
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "unsplit_clone_size": 0,
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

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	

self_link

Name	Type	Description
self	href	

_links

Name	Type	Description
self	href	

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	<p>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.</p> <ul style="list-style-type: none"> • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6 • x-nullable: true

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 information for a token

GET /storage/file/clone/tokens

Introduced In: 9.10

Retrieves information for the specified token.

Related Ontap command

- `volume file clone token show`

Learn More

- `[DOC /storage/file/clone]`

Retrieving information on clone tokens

```

# The API:
/api/storage/file/clone/tokens

# The call:
curl -X GET "https://<mgmt_ip>/api/storage/file/clone/tokens" -H "accept:
application/hal+json"

# The response:
{
  "records": [
    {
      "node": {
        "uuid": "97255711-a1ad-11eb-92b2-0050568eb2ca",
        "name": "node1",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/97255711-a1ad-11eb-92b2-
0050568eb2ca"
          }
        }
      },
      "uuid": "905c42ce-a74b-11eb-bd86-0050568ec7ae",
      "reserve_size": 10240,
      "expiry_time": {
        "limit": "PT1H10M",
        "left": "PT1H9M"
      },
      "_links": {
        "self": {
          "href": "/api/storage/file/clone/tokens/97255711-a1ad-11eb-92b2-
0050568eb2ca/905c42ce-a74b-11eb-bd86-0050568ec7ae"
        }
      }
    },
  ],
  "num_records": 1,
  "_links": {
    "self": {
      "href": "/api/storage/file/clone/tokens"
    }
  }
}

```

Parameters

Name	Type	In	Required	Description
node.name	string	query	False	Filter by node.name
node.uuid	string	query	False	Filter by node.uuid
reserve_size	integer	query	False	Filter by reserve_size
uuid	string	query	False	Filter by uuid
expiry_time.limit	string	query	False	Filter by expiry_time.limit
expiry_time.left	string	query	False	Filter by expiry_time.left
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">• Default value: 1

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

Response

Status: 200, Ok

Name	Type	Description
_links	collection_links	
num_records	integer	Number of records.
records	array[token]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
  }
}
```

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	

collection_links

Name	Type	Description
next	href	
self	href	

self_link

Name	Type	Description
self	href	

expiry_time

Name	Type	Description
left	string	Specifies the time remaining before the given token expires in ISO-8601 format.
limit	string	Specifies when the given token expires in ISO-8601 format.

node

Name	Type	Description
name	string	Node name
uuid	string	Node UUID

token

token

Name	Type	Description
_links	self_link	
expiry_time	expiry_time	
node	node	

Name	Type	Description
reserve_size	integer	Specifies the available reserve in the file clone split load for the given token. Also note that the minimum value for reserve size is 4KB and any value specified below 4KB will be rounded off to 4KB.
uuid	string	Token UUID.

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 new token to reserve the split load

POST /storage/file/clone/tokens

Introduced In: 9.10

Creates a new token to reserve the split load.

Required Properties

- `node.uuid`
- `reserve-size`

Optional Properties

- `expiry_time.limit`

Default values

- `expiry_time.limit - "60"`

Related ONTAP Commands

- `volume file clone token create`

Learn More

- [\[DOC /storage/file/clone\]](#)

Creating clone tokens to reserve space for clone creation on the node

There is a limit on the amount of clone data that can undergo a split at a point of time on the node (clone split load). Clone tokens are used to reserve space from clone split load for clone creation. The POST operation is used to create clone tokens with `reserve-size` and `expiry-time.limit` in the body.


```

# The API
/api/storage/file/clone/tokens

# The call
curl -X POST "https://<mgmt_ip>/api/storage/file/clone/tokens" -H "accept:
application/hal+json" -d '{"node": {"uuid": "97255711-alad-11eb-92b2-
0050568eb2ca"}, "reserve_size": "40M", "expiry_time": { "limit": "4200"}
}'

# The response
{
  "num_records": 1,
  "records": [
    {
      "node": {
        "name": "node1"
      },
      "uuid": "286f6ae4-c94d-11eb-adb5-005056bbeb0b",
      "reserve_size": 41943040,
      "_links": {
        "self": {
          "href": "/api/storage/file/clone/tokens/97255711-alad-11eb-92b2-
0050568eb2ca"
        }
      }
    }
  ]
}

```

Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Request Body

Name	Type	Description
_links	self_link	
expiry_time	expiry_time	

Name	Type	Description
node	node	
reserve_size	integer	Specifies the available reserve in the file clone split load for the given token. Also note that the minimum value for reserve size is 4KB and any value specified below 4KB will be rounded off to 4KB.
uuid	string	Token UUID.

Response

Status: 201, Created

Name	Type	Description
_links	collection_links	
num_records	integer	Number of records.
records	array[token]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
  }
}
```

Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
13565959	Failed to create token for node <code>node.name</code> .
13565964	Reserve size cannot be negative.

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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	

self_link

Name	Type	Description
self	href	

expiry_time

Name	Type	Description
left	string	Specifies the time remaining before the given token expires in ISO-8601 format.
limit	string	Specifies when the given token expires in ISO-8601 format.

node

Name	Type	Description
name	string	Node name
uuid	string	Node UUID

token

token

Name	Type	Description
_links	self_link	
expiry_time	expiry_time	
node	node	
reserve_size	integer	Specifies the available reserve in the file clone split load for the given token. Also note that the minimum value for reserve size is 4KB and any value specified below 4KB will be rounded off to 4KB.

Name	Type	Description
uuid	string	Token UUID.

collection_links

Name	Type	Description
next	href	
self	href	

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 specific file clone token

```
DELETE /storage/file/clone/tokens/{node.uuid}/{uuid}
```

Introduced In: 9.10

Deletes a specific file clone token.

Related Ontap command

- `volume file clone token delete`

Delete specific clone token.

```
# The API:
/api/storage/file/clone/tokens/{node.uuid}/{token.uuid}

# The call:
curl -X DELETE "https://<mgmt_ip>/api/storage/file/clone/tokens/97255711-
alad-11eb-92b2-0050568eb2ca/909c42ce-a74b-11eb-bd86-0050568ec7ae"

# The successful response is empty body.
```

Learn More

- [\[DOC /storage/file/clone\]](#)

Parameters

Name	Type	In	Required	Description
node.uuid	string	path	True	Node UUID
uuid	string	path	True	Token UUID

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
13565958	Failed to get information about token <code>uuid</code> for node <code>node.name</code> .
13565961	Failed to delete token for node <code>node.name</code> .

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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

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 a file clone token

GET /storage/file/clone/tokens/{node.uuid}/{uuid}

Introduced In: 9.10

Retrieves a file clone token

Related Ontap command

- `volume file clone token show`

Retrieve information for single token.

```
# The call:
curl -X GET "https://<mgmt_ip>/api/storage/file/clone/tokens/97255711-
alad-11eb-92b2-0050568eb2ca/905c42ce-a74b-11eb-bd86-0050568ec7ae"

# The response:
{
  "node": {
    "uuid": "97255711-alad-11eb-92b2-0050568eb2ca",
    "name": "node1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/97255711-alad-11eb-92b2-0050568eb2ca"
      }
    }
  },
  "uuid": "905c42ce-a74b-11eb-bd86-0050568ec7ae",
  "reserve_size": 41943040,
  "expiry_time": {
    "limit": "PT1H10M",
    "left": "PT1H9M"
  },
  "_links": {
    "self": {
      "href": "/api/storage/file/clone/tokens/97255711-alad-11eb-92b2-
0050568eb2ca/905c42ce-a74b-11eb-bd86-0050568ec7ae"
    }
  }
}
```

Learn More

- [\[DOC /storage/file/clone\]](#)

Parameters

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

Response

Status: 200, Ok

Name	Type	Description
_links	self_link	
expiry_time	expiry_time	
node	node	
reserve_size	integer	Specifies the available reserve in the file clone split load for the given token. Also note that the minimum value for reserve size is 4KB and any value specified below 4KB will be rounded off to 4KB.
uuid	string	Token UUID.

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
13565958	Failed to get information about token <code>uuid</code> for node <code>node.name</code> .

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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	

self_link

Name	Type	Description
self	href	

expiry_time

Name	Type	Description
left	string	Specifies the time remaining before the given token expires in ISO-8601 format.
limit	string	Specifies when the given token expires in ISO-8601 format.

node

Name	Type	Description
name	string	Node name
uuid	string	Node UUID

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

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

Update a file clone token

PATCH /storage/file/clone/tokens/{node.uuid}/{uuid}

Introduced In: 9.10

Updates a file clone token.

Related Ontap commands

- `volume file clone token modify`

Modify clone token

Use the PATCH API to update the expiry time associated with the clone token.


```
# The call:
curl -X PATCH "https://<mgmt_ip>/api/storage/file/clone/tokens/97255711-
a1ad-11eb-92b2-0050568eb2ca/905c42ce-a74b-11eb-bd86-0050568ec7ae" -d
'{"expiry_time": {"limit": "5400"} }'

# The response for successful PATCH is empty.
```

Learn More

- [DOC /storage/file/clone]

Parameters

Name	Type	In	Required	Description
node.uuid	string	path	True	Node UUID
uuid	string	path	True	Token UUID

Request Body

Name	Type	Description
_links	self_link	
expiry_time	expiry_time	
node	node	
reserve_size	integer	Specifies the available reserve in the file clone split load for the given token. Also note that the minimum value for reserve size is 4KB and any value specified below 4KB will be rounded off to 4KB.
uuid	string	Token UUID.

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
13565958	Failed to get information about token <code>uuid</code> for node <code>node.name</code> .
13565960	Failed to modify token expiry limit for node <code>node.name</code> .

Also see the table of common errors in the [Response body](#) overview section of this documentation.

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	

self_link

Name	Type	Description
self	href	

expiry_time

Name	Type	Description
left	string	Specifies the time remaining before the given token expires in ISO-8601 format.
limit	string	Specifies when the given token expires in ISO-8601 format.

node

Name	Type	Description
name	string	Node name
uuid	string	Node UUID

token

token

Name	Type	Description
_links	self_link	
expiry_time	expiry_time	
node	node	
reserve_size	integer	Specifies the available reserve in the file clone split load for the given token. Also note that the minimum value for reserve size is 4KB and any value specified below 4KB will be rounded off to 4KB.

Name	Type	Description
uuid	string	Token UUID.

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.

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