



# Manage storage file clones

ONTAP 9.15.1 REST API reference

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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 ..... 52
  - Retrieve a file clone token ..... 55
  - Update a file clone token ..... 59

# 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:

&ndash; POST `/api/storage/file/clone`

&ndash; GET `/api/storage/file/clone/split-status`

&ndash; PATCH `/api/storage/file/clone/split-loads/{node.uuid}`

&ndash; GET `/api/storage/file/clone/split-loads/{node.uuid}`

&ndash; GET `/api/storage/file/clone/split-loads`

&ndash; GET `/api/storage/file/clone/tokens/`

&ndash; DELETE `/api/storage/file/clone/tokens/{node.uuid}/{token.uuid}`

&ndash; 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"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> <li>• Default value:</li> </ul>

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

### Example request

```
{
  "destination_path": "dest_file1, dir1/dest_file2",
  "range": [
    2
  ],
  "source_path": "src_file1, dir1/src_file2,
  ../.snapshot/snap1/src_file3",
  "token_uuid": "string",
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "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>&lt;source start block&gt;:&lt;destination start block&gt;:&lt;block length&gt;</code> .

Error Code	Description
918236	The specified <code>volume.uuid</code> and <code>volume.name</code> refer to different volumes.
13565952	Clone start failed.
13565988	The destination file cannot be marked as a backup clone as only a full-file clone can be a backup clone.

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

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

### Example error

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

### Definitions



## See Definitions

href

Name	Type	Description
href	string	

\_links

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

volume

Name	Type	Description
_links	<a href="#">_links</a>	
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"><li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li><li>• Introduced in: 9.6</li><li>• x-nullable: true</li></ul>

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

#### job\_link

Name	Type	Description
_links	<a href="#">_links</a>	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### returned\_error

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

# Retrieve 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
node.uuid	string	query	False	Filter by node.uuid
node.name	string	query	False	Filter by node.name
load.current	integer	query	False	Filter by load.current
load.allowable	integer	query	False	Filter by load.allowable
load.token_reserved	integer	query	False	Filter by load.token_reserved
load.maximum	integer	query	False	Filter by load.maximum
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.  • 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.  • 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	<a href="#">collection_links</a>	
num_records	integer	Number of records.
records	array[ <a href="#">split_load</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "load": {
        "allowable": "4KB",
        "current": 0,
        "maximum": "4KB",
        "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	<a href="#">returned_error</a>	

### Example error

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

### Definitions



## See Definitions

href

Name	Type	Description
href	string	

collection\_links

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

self\_link

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

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. The least allowable file clone split load is 4KB and the maximum is 675TB. The default file clone split load is set based on the system configuration.
token_reserved	integer	Specifies the file clone split load on the node reserved for tokens.

\_links

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

node

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

split\_load

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

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

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

## Retrieve the volume file clone split load

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

**Introduced In:** 9.10

Retrieve the volume file clone split load.

### Related ONTAP command

- `volume file clone split load show`

## Parameters

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

## Response

Status: 200, Ok

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

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "load": {
    "allowable": "4KB",
    "current": 0,
    "maximum": "4KB",
    "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	<a href="#">href</a>	

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. The least allowable file clone split load is 4KB and the maximum is 675TB. The default file clone split load is set based on the system configuration.
token_reserved	integer	Specifies the file clone split load on the node reserved for tokens.

\_links

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

node

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

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

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

## Update the 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": "4KB",
    "current": 0,
    "maximum": "4KB",
    "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	<a href="#">returned_error</a>	

### Example error

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

## Definitions



## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

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. The least allowable file clone split load is 4KB and the maximum is 675TB. The default file clone split load is set based on the system configuration.
token_reserved	integer	Specifies the file clone split load on the node reserved for tokens.

\_links

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

node

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

split\_load

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

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

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

## Retrieve 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_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_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
volume.uuid	string	query	False	Filter by volume.uuid
volume.name	string	query	False	Filter by volume.name
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_size	integer	query	False	Filter by unsplit_size <ul style="list-style-type: none"> <li>Introduced in: 9.15</li> </ul>
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> <li>Default value: 1</li> </ul>

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

## Response

Status: 200, Ok

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

## 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_size": 0,
      "volume": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "volume1",
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
      }
    }
  ]
}
```

## Error

Status: Default, Error

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

### Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

collection\_links

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

self\_link

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

\_links

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

svm

SVM, applies only to SVM-scoped objects.

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

volume

Name	Type	Description
_links	<a href="#">_links</a>	
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"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• Introduced in: 9.6</li> <li>• x-nullable: true</li> </ul>

#### split\_status

Name	Type	Description
_links	<a href="#">self_link</a>	
pending_splits	integer	Specifies the number of pending file clone split operations in the volume.
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
unsplit_size	integer	Specifies the space occupied by unsplit file clones in the volume.
volume	<a href="#">volume</a>	

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### returned\_error

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

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 the volume that is not split, in bytes.

```

# 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_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	<a href="#">self_link</a>	
pending_splits	integer	Specifies the number of pending file clone split operations in the volume.
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
unsplit_size	integer	Specifies the space occupied by unsplit file clones in the volume.
volume	<a href="#">volume</a>	

## 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_size": 0,
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

## Error

Status: Default, Error

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

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

\_links

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

svm

SVM, applies only to SVM-scoped objects.

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

volume

Name	Type	Description
_links	<a href="#">_links</a>	
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"> <li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>• Introduced in: 9.6</li> <li>• x-nullable: true</li> </ul>

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### returned\_error

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

## Retrieve 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",
      },
      "_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.uuid	string	query	False	Filter by node.uuid
node.name	string	query	False	Filter by node.name
uuid	string	query	False	Filter by uuid
reserve_size	integer	query	False	Filter by reserve_size
expiry_time.left	string	query	False	Filter by expiry_time.left
expiry_time.limit	string	query	False	Filter by expiry_time.limit
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

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	<a href="#">collection_links</a>	
num_records	integer	Number of records.
records	<a href="#">array[token]</a>	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourceLink"
    },
    "self": {
      "href": "/api/resourceLink"
    }
  },
  "num_records": 1,
  "records": [
    {
    }
  ]
}
```

## Error

Status: Default, Error

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

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

collection\_links

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

self\_link

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

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	<a href="#">self_link</a>	
expiry_time	<a href="#">expiry_time</a>	
node	<a href="#">node</a>	

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

## Create a 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.<br>



```

# 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": {
        "uuid": "97255711-alad-11eb-92b2-0050568eb2ca",
        "name": "node1"
      },
      "uuid": "286f6ae4-c94d-11eb-adb5-005056bbeb0b",
      "reserve_size": 41943040,
      "expiry_time": {
        "limit": "PT1H10M"
      },
      "_links": {
        "self": {
          "href": "/api/storage/file/clone/tokens/97255711-alad-11eb-92b2-
0050568eb2ca"
        }
      }
    }
  ]
}

```

## Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> <li>• Default value:</li> </ul>

## Request Body

Name	Type	Description
_links	<a href="#">self_link</a>	
expiry_time	<a href="#">expiry_time</a>	
node	<a href="#">node</a>	
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	<a href="#">collection_links</a>	
num_records	integer	Number of records.
records	array[ <a href="#">token</a> ]	

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

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

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	<a href="#">self_link</a>	
expiry_time	<a href="#">expiry_time</a>	
node	<a href="#">node</a>	
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	<a href="#">href</a>	
self	<a href="#">href</a>	

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

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

## Delete a 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	<a href="#">returned_error</a>	

## Example error

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

## Definitions

### See Definitions

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### returned\_error

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



# Retrieve a 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",
  },
  "_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	<a href="#">self_link</a>	
expiry_time	<a href="#">expiry_time</a>	
node	<a href="#">node</a>	
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	<a href="#">returned_error</a>	

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

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[ <a href="#">error_arguments</a> ]	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.<br>

```
# 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	<a href="#">self_link</a>	
expiry_time	<a href="#">expiry_time</a>	
node	<a href="#">node</a>	
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	<a href="#">returned_error</a>	

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

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	<a href="#">self_link</a>	
expiry_time	<a href="#">expiry_time</a>	
node	<a href="#">node</a>	
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[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

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