



# **Manage storage file clones**

## **ONTAP 9.11.1 REST API reference**

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# 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": [
    "10:10:5",
    "20:20:10"
  ],
  "source_path": "src_file1, dir1/src_file2,
  ../.snapshot/snap1/src_file3",
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
```

## Response

Status: 202, Accepted

| Name | Type                     | Description |
|------|--------------------------|-------------|
| job  | <a href="#">job_link</a> |             |

### Example response

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

## Error

Status: Default, Error

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">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.   |
| 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></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 |

#### 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.<br>

```
# 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.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   |
| 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    | <p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>  |
| 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> |

| 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"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "load": {
      "allowable": 0,
      "current": 0,
      "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 | 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 | <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. |
| 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\_reference

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

| Name | Type   | Description |
|------|--------|-------------|
| uuid | string |             |

split\_load

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

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

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

## Retrieve the volume file clone split load rest

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 | <a href="#">self_link</a>      |             |
| load   | <a href="#">load</a>           |             |
| node   | <a href="#">node_reference</a> |             |

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "load": {
    "allowable": 0,
    "current": 0,
    "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 | 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. |
| 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\_reference

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

error\_arguments

| Name | Type   | Description   |
|------|--------|---------------|
| code | string | Argument code |

| Name    | Type   | Description      |
|---------|--------|------------------|
| message | string | Message argument |

error

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

## 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 | <a href="#">self_link</a>      |             |
| load   | <a href="#">load</a>           |             |
| node   | <a href="#">node_reference</a> |             |

### Example request

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

## Response

Status: 200, Ok

## Error

Status: Default, Error

| Name  | Type  | Description |
|-------|-------|-------------|
| error | error |             |

### Example error

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

### Definitions



## See Definitions

href

| Name | Type   | Description |
|------|--------|-------------|
| href | string |             |

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. |
| 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\_reference

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

split\_load

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

| Name | Type                           | Description |
|------|--------------------------------|-------------|
| load | <a href="#">load</a>           |             |
| node | <a href="#">node_reference</a> |             |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

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

## Retrieve the 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  |
| volume.name        | string        | query | False    | Filter by volume.name   |
| volume.uuid        | string        | query | False    | Filter by volume.uuid   |
| 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  |
| 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    | <p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <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"
    }
  },
  "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 | 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 | <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

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

volume

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



| Name | Type   | Description  |
|------|--------|--|
| uuid | string | <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> </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>       |  |
| unsplit_clone_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 |

#### 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 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.<br> `pending-clone-splits` is the number of files for which file clone split is not yet completed.<br> `unsplit-size` is the sum of all sizes, in bytes in the volume that is not split.<br>

```
# 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": "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"
    }
  }
}
```

## 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>       |  |
| unsplit_clone_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_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 | 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> |             |

\_links

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

svm

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

volume

| Name   | Type                   | Description  |
|--------|------------------------|--|
| _links | <a href="#">_links</a> |  |
| name   | string                 | The name of the volume.  |
| uuid   | string                 | Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move. <ul style="list-style-type: none"><li>• example: 028baa66-41bd-11e9-81d5-00a0986138f7</li><li>• Introduced in: 9.6</li></ul> |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

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

## Retrieve 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-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": 10240,
      "expiry_time": {
        "limit": "PT1H10M",
        "left": "PT1H9M"
      },
      "_links": {
        "self": {
          "href": "/api/storage/file/clone/tokens/97255711-alad-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   |
|-------------------|---------------|-------|----------|---|
| expiry_time.limit | string        | query | False    | Filter by expiry_time.limit   |
| expiry_time.left  | string        | query | False    | Filter by expiry_time.left  |
| reserve_size      | integer       | query | False    | Filter by reserve_size  |
| 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  |
| 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    | <p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <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="#">token</a> ]   |                    |

## Example response

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

## Error

Status: Default, Error

| Name  | Type  | Description |
|-------|-------|-------------|
| error | error |             |

## Example error

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

## Definitions

## See Definitions

href

| Name | Type   | Description |
|------|--------|-------------|
| href | string |             |

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.                      |

\_links

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

node\_reference

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

token

token

| Name         | Type                           | Description   |
|--------------|--------------------------------|---|
| _links       | <a href="#">self_link</a>      |   |
| expiry_time  | <a href="#">expiry_time</a>    |   |
| node         | <a href="#">node_reference</a> |   |
| reserve_size | integer                        | Specifies the available reserve in the file clone split load for the given token. |
| uuid         | string                         | Token UUID.   |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

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

## 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`
- `expiry_time.left`

## 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": {
        "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    | <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> |             |



| Name         | Type                           | Description   |
|--------------|--------------------------------|---|
| node         | <a href="#">node_reference</a> |   |
| reserve_size | integer                        | Specifies the available reserve in the file clone split load for the given token. |
| 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"
    }
  },
  "records": {
  }
}
```

## Error

Status: Default, Error

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">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.                      |

\_links

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

node\_reference

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

token

token

| Name        | Type                           | Description |
|-------------|--------------------------------|-------------|
| _links      | <a href="#">self_link</a>      |             |
| expiry_time | <a href="#">expiry_time</a>    |             |
| node        | <a href="#">node_reference</a> |             |

| Name         | Type    | Description   |
|--------------|---------|---|
| reserve_size | integer | Specifies the available reserve in the file clone split load for the given token. |
| 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 |

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

| Name | Type                     | Description |
|------|--------------------------|-------------|
| job  | <a href="#">job_link</a> |             |

## Example response

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

## Error

Status: Default, Error

| Name  | Type  | Description |
|-------|-------|-------------|
| error | error |             |

### Example error

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

## Definitions

## See Definitions

href

| Name | Type   | Description |
|------|--------|-------------|
| href | string |             |

\_links

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

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 |

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",
    "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       | <a href="#">self_link</a>      |   |
| expiry_time  | <a href="#">expiry_time</a>    |   |
| node         | <a href="#">node_reference</a> |   |
| reserve_size | integer                        | Specifies the available reserve in the file clone split load for the given token. |
| uuid         | string                         | Token UUID.   |

## Error

Status: Default, Error

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">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.                      |

\_links

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

node\_reference

| 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 |

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 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-
alad-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_reference</a> |   |
| reserve_size | integer                        | Specifies the available reserve in the file clone split load for the given token. |
| uuid         | string                         | Token UUID.   |

## Response

Status: 200, Ok

## Error

Status: Default, Error

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">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.                      |

\_links

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

node\_reference

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

token

token

| Name        | Type                           | Description |
|-------------|--------------------------------|-------------|
| _links      | <a href="#">self_link</a>      |             |
| expiry_time | <a href="#">expiry_time</a>    |             |
| node        | <a href="#">node_reference</a> |             |

| Name         | Type    | Description   |
|--------------|---------|---|
| reserve_size | integer | Specifies the available reserve in the file clone split load for the given token. |
| uuid         | string  | Token UUID.   |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

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

## Start a file copy operation

POST /storage/file/copy

**Introduced In:** 9.8

Starts a file copy operation. Only supported on flexible volumes.

### Required properties

- `files_to_copy` - List of files with the destination they are to be copied to.

### Default property values

- `cutover_time` - *10*
- `hold_quiescence` - *false*
- `max_throughput` - *0*

- `reference_cutover_time - 10`

## Related ONTAP commands

- `volume file copy start`

## Examples

### Copying two files

The POST request is used to copy file(s).

```
# The API:
/api/storage/file/copy

# The call:
curl -X POST "https://<mgmt-ip>/api/storage/file/copy" -H "accept:
application/hal+json" -d
'{"files_to_copy":[{"source":{"volume":{"name":"vol_a"},"svm":{"name":"vs0"},
"path":"d1/src_f1"},"destination":{"volume":{"name":"vol_a"},"svm":{"name":"vs0"},
"path":"d1/dst_f1"}},
{"source":{"volume":{"name":"vol_a"},"svm":{"name":"vs0"},"path":"d1/src_f2"},
"destination":{"volume":{"name":"vol_a"},"svm":{"name":"vs0"},"path":"d1/dst_f2"}
}]}'

# The response:
{
  "job": {
    "uuid": "b89bc5dd-94a3-11e8-a7a3-0050568edf84",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/b89bc5dd-94a3-11e8-a7a3-0050568edf84"
      }
    }
  }
}
```

## 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  |
|--------------|---------|--|
| cutover_time | integer | The maximum amount of time (in seconds) that the source can be quiesced before a destination file must be made available for read-write traffic. |

| Name                   | Type                                   | Description   |
|------------------------|--|---|
| files_to_copy          | array[ <a href="#">files_to_copy</a> ] | A list of source files along with the destinations they are copied to. If the terminal path component of the destination is a directory, then the source file's basename is replicated in that directory. |
| hold_quiescence        | boolean                                | Specifies whether the source file should be held quiescent for the duration of the copy operation.  |
| max_throughput         | integer                                | The maximum amount of data (in bytes) that can be transferred per second in support of this operation.  |
| reference_cutover_time | integer                                | The maximum amount of time (in seconds) that the source reference file can be quiesced before the corresponding destination file must be made available for read-write traffic.                           |
| reference_file         | <a href="#">reference_file</a>         |   |

## Example request

```
{
  "cutover_time": 10,
  "files_to_copy": {
    "destination": {
      "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"
      }
    },
    "source": {
      "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"
      }
    }
  },
}
```

```

"reference_cutover_time": 10,
"reference_file": {
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}
}

```

## Response

Status: 202, Accepted

| Name | Type                     | Description |
|------|--------------------------|-------------|
| job  | <a href="#">job_link</a> |             |

## Example response

```

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

```

## Error

Status: Default

## ONTAP Error Response Codes

| Error Code | Description  |
|------------|--|
| 7012352    | File locations are inconsistent. All files must be on the same volume.                               |
| 7012353    | Exceeded the file operations supported number of files.  |
| 7012354    | Unable to pair the number of source files to destination files.                                      |
| 7012357    | Cannot start a file operation until all cluster nodes support the file operations capability.        |
| 7012358    | The specified source path is invalid.  |
| 7012359    | The specified destination path is invalid.   |
| 7012360    | The SVMs are not in an intracluster peering relationship.  |
| 7012361    | The SVMs peering relationship does not include application "file-copy".                              |
| 7012362    | The SVMs are not yet in a peered state yet.  |
| 7012363    | Cannot copy files. All file operations must be managed by the destination SVM's administrator.       |
| 7012365    | Copying a file between clusters is not supported.  |
| 7012367    | A reference path may only be specified if multiple source paths are specified.                       |
| 7012368    | The reference path must have a matching source path.   |
| 7012371    | The reference cutover time exceeds the maximum allowable time.                                       |
| 7012374    | Source volume and destination volume have different home clusters.                                   |
| 7012376    | Operation not allowed on a volume that is part of a SnapMirror Synchronous relationship.             |
| 7012377    | Cannot start a file copy operation on the volume because an active volume conversion is in progress. |
| 13107223   | Operation not supported for FlexGroup volumes or FlexGroup constituents.                             |
| 196608143  | Cannot start operation. The volume is undergoing a secure purge operation.                           |

| Name  | Type                  | Description |
|-------|-----------------------|-------------|
| error | <a href="#">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> |             |

svm

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

volume

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

file\_reference

| Name   | Type                   | Description                    |
|--------|------------------------|--------------------------------|
| path   | string                 | Path of the file or directory. |
| svm    | <a href="#">svm</a>    |                                |
| volume | <a href="#">volume</a> |                                |

## files\_to\_copy

| Name        | Type                           | Description |
|-------------|--------------------------------|-------------|
| destination | <a href="#">file_reference</a> |             |
| source      | <a href="#">file_reference</a> |             |

## reference\_file

| Name   | Type                   | Description  |
|--------|------------------------|--|
| path   | string                 | The source reference file. If a reference file is specified, data for other files being copied will be transferred as a difference from the reference file. This can save bandwidth and destination storage if the specified source files share blocks. If provided, this input must match one of the source file paths. This input need not be provided if only one source file is specified. |
| volume | <a href="#">volume</a> |  |

## file\_copy

### File copy

| Name            | Type                                   | Description   |
|-----------------|--|---|
| cutover_time    | integer                                | The maximum amount of time (in seconds) that the source can be quiesced before a destination file must be made available for read-write traffic.  |
| files_to_copy   | array[ <a href="#">files_to_copy</a> ] | A list of source files along with the destinations they are copied to. If the terminal path component of the destination is a directory, then the source file's basename is replicated in that directory. |
| hold_quiescence | boolean                                | Specifies whether the source file should be held quiescent for the duration of the copy operation.  |



| Name                   | Type                           | Description   |
|------------------------|--------------------------------|---|
| max_throughput         | integer                        | The maximum amount of data (in bytes) that can be transferred per second in support of this operation.  |
| reference_cutover_time | integer                        | The maximum amount of time (in seconds) that the source reference file can be quiesced before the corresponding destination file must be made available for read-write traffic. |
| reference_file         | <a href="#">reference_file</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 |

#### 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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