



Manage storage file clones

ONTAP 9.14.1 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:

– POST /api/storage/file/clone

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

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

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

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

– GET /api/storage/file/clone/tokens/

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

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

Create a clone of the file

POST /storage/file/clone

Introduced In: 9.6

Creates a clone of the file.

Required Properties

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

Optional Properties

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

Related Ontap commands

- `volume file clone create`

Creating file clones

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

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

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

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

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

Learn More

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

Parameters

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

Request Body

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

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

Example request

```
{
  "destination_path": "dest_file1, dir1/dest_file2",
  "range": 36605,
  "source_path": "src_file1, dir1/src_file2,
  ../.snapshot/snap1/src_file3",
  "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 value for the field -range. Value must be provided in the format <source start block>:<destination start block>:<block length>. |
| 918236 | The specified volume.uuid and volume.name refer to different volumes. |
| 13565952 | Clone start failed. |

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

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

Example error

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

Definitions

See Definitions

href

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

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

volume

| Name | Type | Description |
|--------|------------------------|---|
| _links | _links | |
| name | string | The name of the volume. This field cannot be specified in a POST or PATCH method. |
| uuid | string | Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move. <ul style="list-style-type: none">• example: 028baa66-41bd-11e9-81d5-00a0986138f7• Introduced in: 9.6• x-nullable: true |

file_clone

File clone

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

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

job_link

| Name | Type | Description |
|--------|------------------------|---|
| _links | _links | |
| uuid | string | The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation. |

error_arguments

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

returned_error

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

Retrieve the clone split load of a node

GET /storage/file/clone/split-loads

Introduced In: 9.10

Retrieves the clone split load of a node.

Related Ontap Commands

- volume file clone split load show

Retrieving file clone split load related information

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


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

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

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

```

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

```

Learn More

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

Parameters

| Name | Type | In | Required | Description |
|---------------------|---------------|-------|----------|--|
| load.current | integer | query | False | Filter by load.current |
| load.token_reserved | integer | query | False | Filter by load.token_reserved |
| load.allowable | integer | query | False | Filter by load.allowable |
| load.maximum | integer | query | False | Filter by load.maximum |
| node.name | string | query | False | Filter by node.name |
| node.uuid | string | query | False | Filter by node.uuid |
| fields | array[string] | query | False | Specify the fields to return. |
| max_records | integer | query | False | Limit the number of records returned. |
| return_records | boolean | query | False | <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"> • Default value: 1 |
| return_timeout | integer | query | False | <p>The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached.</p> <ul style="list-style-type: none"> • Default value: 1 • Max value: 120 • Min value: 0 |

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

Response

Status: 200, Ok

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

Example response

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

Error

Status: Default, Error

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

Example error

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

Definitions

See Definitions

href

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

collection_links

| Name | Type | Description |
|------|----------------------|-------------|
| next | href | |
| self | href | |

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

load

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

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |

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

split_load

| Name | Type | Description |
|--------|---------------------------|-------------|
| _links | self_link | |
| load | load | |
| node | node | |

error_arguments

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

returned_error

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

Retrieve the volume file clone split load

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

Introduced In: 9.10

Retrieve Volume File Clone Split Load REST

Parameters

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

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

Response

Status: 200, Ok

| Name | Type | Description |
|--------|---------------------------|-------------|
| _links | self_link | |
| load | load | |
| node | node | |

Example response

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

Error

Status: Default, Error

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

Example error

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

Definitions

See Definitions

href

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

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

load

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

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

error_arguments

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

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

returned_error

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

Update the maximum split load

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

Introduced In: 9.10

Updates the maximum split load.

Related Ontap command

- `volume file clone split load modify`

Learn More

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

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

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

Parameters

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

Request Body

| Name | Type | Description |
|--------|---------------------------|-------------|
| _links | self_link | |
| load | load | |
| node | node | |

Example request

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

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

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

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

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

Example error

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

Definitions

See Definitions

href

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

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

load

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

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

split_load

| Name | Type | Description |
|--------|---------------------------|-------------|
| _links | self_link | |

| Name | Type | Description |
|------|----------------------|-------------|
| load | load | |
| node | node | |

error_arguments

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

returned_error

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

Retrieve file clone split status of all volumes in the node

GET /storage/file/clone/split-status

Introduced In: 9.10

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

Learn More

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

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

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

# The response:
```

```

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

```

```

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

```

Parameters

| Name | Type | In | Required | Description |
|--------------------|---------------|-------|----------|---|
| pending_splits | integer | query | False | Filter by pending_splits |
| svm.uuid | string | query | False | Filter by svm.uuid |
| svm.name | string | query | False | Filter by svm.name |
| unsplit_clone_size | integer | query | False | Filter by unsplit_clone_size |
| volume.name | string | query | False | Filter by volume.name |
| volume.uuid | string | query | False | Filter by volume.uuid |
| fields | array[string] | query | False | Specify the fields to return. |
| max_records | integer | query | False | Limit the number of records returned. |
| return_records | boolean | query | False | <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"> • Default value: 1 |

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

Response

Status: 200, Ok

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

Example response

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

Error

Status: Default, Error

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

Example error

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

Definitions

See Definitions

href

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

collection_links

| Name | Type | Description |
|------|----------------------|-------------|
| next | href | |
| self | href | |

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|--------|------------------------|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

volume

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

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

split_status

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

error_arguments

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

returned_error

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

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

Retrieve file clone split status of all volumes

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

Introduced In: 9.10

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

Related Ontap commands

- `volume file clone split status`

Learn More

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

Retrieves the information of split status.

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


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

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

# The response:
{
  "volume": {
    "uuid": "ac559964-57a3-40cf-b5cb-f3cb99151a7d",
    "name": "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 | self_link | |
| pending_splits | integer | Specifies the number of pending file clone split operations in the volume. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| unsplit_clone_size | integer | Specifies the space occupied by unsplit file clones in the volume. |
| volume | volume | |

Example response

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

Error

Status: Default, Error

| Name | Type | Description |
|-------|-----------------------------|-------------|
| error | <code>returned_error</code> | |

Example error

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

Definitions

See Definitions

href

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

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|--------|------------------------|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

volume

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

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

error_arguments

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

returned_error

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

Retrieve information for a token

GET /storage/file/clone/tokens

Introduced In: 9.10

Retrieves information for the specified token.

Related Ontap command

- `volume file clone token show`

Learn More

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

Retrieving information on clone tokens

```

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

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

# The response:
{
  "records": [
    {
      "node": {
        "uuid": "97255711-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 |
|-------------------|---------------|-------|----------|---|
| node.name | string | query | False | Filter by node.name |
| node.uuid | string | query | False | Filter by node.uuid |
| reserve_size | integer | query | False | Filter by reserve_size |
| uuid | string | query | False | Filter by uuid |
| expiry_time.limit | string | query | False | Filter by expiry_time.limit |
| expiry_time.left | string | query | False | Filter by expiry_time.left |
| fields | array[string] | query | False | Specify the fields to return. |
| max_records | integer | query | False | Limit the number of records returned. |
| return_records | boolean | query | False | <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">• Default value: 1 |

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

Response

Status: 200, Ok

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

Example response

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

Error

Status: Default, Error

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

Example error

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

Definitions

See Definitions

href

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

collection_links

| Name | Type | Description |
|------|----------------------|-------------|
| next | href | |
| self | href | |

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

expiry_time

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

node

| Name | Type | Description |
|------|--------|-------------|
| name | string | Node name |
| uuid | string | Node UUID |

token

token

| Name | Type | Description |
|-------------|-----------------------------|-------------|
| _links | self_link | |
| expiry_time | expiry_time | |
| node | node | |

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

error_arguments

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

returned_error

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

Create a new token to reserve the split load

POST /storage/file/clone/tokens

Introduced In: 9.10

Creates a new token to reserve the split load.

Required Properties

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

Optional Properties

- `expiry_time.limit`

Default values

- `expiry_time.limit - "60"`

Related ONTAP Commands

- `volume file clone token create`

Learn More

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

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

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


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

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

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

Parameters

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

Request Body

| Name | Type | Description |
|-------------|-----------------------------|-------------|
| _links | self_link | |
| expiry_time | expiry_time | |

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

Response

Status: 201, Created

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

Example response

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

Headers

| Name | Description | Type |
|----------|---|--------|
| Location | Useful for tracking the resource location | string |

Error

Status: Default

ONTAP Error Response Codes

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

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

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

Example error

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

Definitions

See Definitions

href

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

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

expiry_time

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

node

| Name | Type | Description |
|------|--------|-------------|
| name | string | Node name |
| uuid | string | Node UUID |

token

token

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

| Name | Type | Description |
|------|--------|-------------|
| uuid | string | Token UUID. |

collection_links

| Name | Type | Description |
|------|----------------------|-------------|
| next | href | |
| self | href | |

error_arguments

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

returned_error

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

Delete a specific file clone token

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

Introduced In: 9.10

Deletes a specific file clone token.

Related Ontap command

- `volume file clone token delete`

Delete specific clone token.

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

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

# The successful response is empty body.
```

Learn More

• [\[DOC /storage/file/clone\]](#)

Parameters

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

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

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

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

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

Example error

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

Definitions

See Definitions

error_arguments

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

returned_error

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

Retrieve a file clone token

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

Introduced In: 9.10

Retrieves a file clone token

Related Ontap command

- volume file clone token show

Retrieve information for single token.

```
# The call:
curl -X GET "https://<mgmt_ip>/api/storage/file/clone/tokens/97255711-a1ad-11eb-92b2-0050568eb2ca/905c42ce-a74b-11eb-bd86-0050568ec7ae"

# The response:
{
  "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": 41943040,
  "expiry_time": {
    "limit": "PT1H10M",
    "left": "PT1H9M"
  },
  "_links": {
    "self": {
      "href": "/api/storage/file/clone/tokens/97255711-a1ad-11eb-92b2-0050568eb2ca/905c42ce-a74b-11eb-bd86-0050568ec7ae"
    }
  }
}
```

Learn More

- [DOC /storage/file/clone]

Parameters

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

Response

Status: 200, Ok

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

Error

Status: Default

ONTAP Error Response Codes

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

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

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

Example error

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

Definitions

See Definitions

href

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

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

expiry_time

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

node

| Name | Type | Description |
|------|--------|-------------|
| name | string | Node name |
| uuid | string | Node UUID |

error_arguments

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

returned_error

| Name | Type | Description |
|-----------|--|-------------------|
| arguments | array[error_arguments] | Message arguments |
| code | string | Error code |

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

Update a file clone token

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

Introduced In: 9.10

Updates a file clone token.

Related Ontap commands

- `volume file clone token modify`

Modify clone token

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


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

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

Learn More

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

Parameters

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

Request Body

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

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

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

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

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

Example error

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

Definitions

See Definitions

href

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

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

expiry_time

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

node

| Name | Type | Description |
|------|--------|-------------|
| name | string | Node name |
| uuid | string | Node UUID |

token

token

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

| Name | Type | Description |
|------|--------|-------------|
| uuid | string | Token UUID. |

error_arguments

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

returned_error

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

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