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View key information about files and volumes

ONTAP 9.9.1 REST API reference

NetApp
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View key information about files and volumes

Storage SnapLock file-fingerprints endpoint overview

Use this API to view key information about files and volumes, including the file type (regular, WORM, or WORM appendable), the volume expiration date, and so on.

Retrieve fingerprint operations of an SVM and volume

GET `/storage/snaplock/file-fingerprints`

Introduced In: 9.7

Retrieves a list of all the fingerprint operations of the specified SVM and volume.

Related ONTAP commands

- `volume file fingerprint show`

Example

```
GET "/api/storage/snaplock/file-fingerprints/?svm.uuid=23940494-3f3a-11e9-
8675-0050568e8f89&volume.uuid=36cdb58c-3f3a-11e9-8675-0050568e8f89"
```

Learn more

- DOC /storage/snaplock/file-fingerprints

Parameters

Name	Type	In	Required	Description
svm.uuid	string	query	True	SVM UUID
volume.uuid	string	query	True	Volume UUID
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.

Name	Type	In	Required	Description
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. • Default value: 1 • Max value: 120 • Min value: 0
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. • Default value: 1
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
num_records	integer	Number of Records.
records	array[snaplock_file_fingerprint]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "algorithm": "sha256",
    "data_fingerprint": "MOFJVevxNSJm3C/4Bn5oEEYH51CrudOzZYK4r5Cfy1g=",
    "file_size": "1048576",
    "file_type": "worm",
    "id": "17039367",
    "metadata_fingerprint":
"8iMjqJXiNcqgXT5XuRhLiEwIrJEihDmwS0hrexnjgmc=",
    "path": "/homedir/dir1",
    "scope": "data_only",
    "state": "completed",
    "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"
    }
  }
}
```

Error

```
Status: Default
```

ONTAP Error Response codes

Error code	Description
14090442	Invalid Vserver UUID
14090445	Invalid key values. Provide Vserver UUID and Volume UUID

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
next	href	
self	href	

_links

Name	Type	Description
self	href	

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

volume

Name	Type	Description
_links	_links	
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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6

snaplock_file_fingerprint

Name	Type	Description
_links	_links	
algorithm	string	The digest algorithm which is used for the fingerprint computation
data_fingerprint	string	The digest value of data of the file. The fingerprint is base64 encoded. This field is not included if the scope is metadata-only.
file_size	integer	The size of the file in bytes.
file_type	string	The type of the file.
id	integer	A unique identifier for the fingerprint operation
metadata_fingerprint	string	The digest value of metadata of the file. The metadata fingerprint is calculated for file size, file ctime, file mtime, file crtime, file retention time, file uid, file gid, and file type. The fingerprint is base64 encoded. This field is not included if the scope is data-only.
path	string	Specifies the path on which file fingerprint operation is running or has completed. Specifies the path relative to the output volume root, of the form "/path". The path can be path to a file or a directory.
scope	string	The scope of the file which is used for the fingerprint computation
state	string	Specifies the status of fingerprint operation.
svm	svm	
volume	volume	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

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 fingerprint computation session

POST `/storage/snaplock/file-fingerprints`

Introduced In: 9.7

Creates a fingerprint computation session on the file and returns a session-id. This session-id is a unique identifier that you can use to retrieve the progress of an ongoing fingerprint operation. When the operation is complete, you can use the session-id to retrieve the complete fingerprint output for the file .

Required properties

- `svm.uuid` or `svm.name` - Name or UUID of the SVM.
- `volume.name` or `volume.uuid` - Name or UUID of the volume.
- `path` - Path of the file.

Default property values

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

- `algorithm` - *md5*

Related ONTAP commands

- `volume file fingerprint start`

Example

```
POST "/api/storage/snaplock/file-fingerprints" '{"svm":{"uuid":"23940494-
3f3a-11e9-8675-0050568e8f89"},"volume": {"uuid":"26cdb58c-3f3a-11e9-8675-
0050568e8f89"},"path":"/vol/a1.txt","algorithm":"md5"}'
```

Learn more

- DOC /storage/snaplock/file-fingerprints

Parameters

Name	Type	In	Required	Description
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202. • Default value: 1 • Max value: 120 • Min value: 0

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

Request Body

Name	Type	Description
_links	[_links](#_links)	
algorithm	string	The digest algorithm which is used for the fingerprint computation
data_fingerprint	string	The digest value of data of the file. The fingerprint is base64 encoded. This field is not included if the scope is metadata-only.
file_size	integer	The size of the file in bytes.
file_type	string	The type of the file.
id	integer	A unique identifier for the fingerprint operation
metadata_fingerprint	string	The digest value of metadata of the file. The metadata fingerprint is calculated for file size, file ctime, file mtime, file crtime, file retention time, file uid, file gid, and file type. The fingerprint is base64 encoded. This field is not included if the scope is data-only.
path	string	Specifies the path on which file fingerprint operation is running or has completed. Specifies the path relative to the output volume root, of the form "/path". The path can be path to a file or a directory.
scope	string	The scope of the file which is used for the fingerprint computation

Name	Type	Description
state	string	Specifies the status of fingerprint operation.
svm	svm	
volume	volume	

Example request

```json
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "algorithm": "sha256",
  "data_fingerprint": "MOFJVevxNSJm3C/4Bn5oEEYH51CrudOzZYK4r5Cfy1g=",
  "file_size": "1048576",
  "file_type": "worm",
  "id": "17039367",
  "metadata_fingerprint":
"8iMjqJXiNcqgXT5XuRhLiEwIrJEihDmwS0hrexnjgmc=",
  "path": "/homedir/dir1",
  "scope": "data_only",
  "state": "completed",
  "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"
  }
}
```

Response

```
Status: 202, Accepted
```

Name	Type	Description
job	job_link	

Example response

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

Error

```
Status: Default
```

ONTAP Error Response codes

Error code	Description
14090443	Invalid volume name
14090444	Invalid Vserver name
14090447	Invalid volume UUID
14090448	Invalid key values. Provide valid Vserver name and volume name or Vserver UUID and volume UUID

Name	Type	Description
error	error	

Example error

```json
{
  "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	

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

volume

Name	Type	Description
_links	_links	
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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6

snaplock_file_fingerprint

Name	Type	Description
_links	_links	
algorithm	string	The digest algorithm which is used for the fingerprint computation

Name	Type	Description
data_fingerprint	string	The digest value of data of the file. The fingerprint is base64 encoded. This field is not included if the scope is metadata-only.
file_size	integer	The size of the file in bytes.
file_type	string	The type of the file.
id	integer	A unique identifier for the fingerprint operation
metadata_fingerprint	string	The digest value of metadata of the file. The metadata fingerprint is calculated for file size, file ctime, file mtime, file crtime, file retention time, file uid, file gid, and file type. The fingerprint is base64 encoded. This field is not included if the scope is data-only.
path	string	Specifies the path on which file fingerprint operation is running or has completed. Specifies the path relative to the output volume root, of the form "/path". The path can be path to a file or a directory.
scope	string	The scope of the file which is used for the fingerprint computation
state	string	Specifies the status of fingerprint operation.
svm	svm	
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

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.

Cancel a fingerprint operation

DELETE `/storage/snaplock/file-fingerprints/{id}`

Introduced In: 9.7

Aborts an in-progress fingerprint operation. This API takes session-id as input and aborts the fingerprint operation that is associated with the specified session-id.

Related ONTAP commands

- `volume file fingerprint abort`

Learn more

- DOC /storage/snaplock/file-fingerprints

Parameters

Name	Type	In	Required	Description
id	string	path	True	Unique identifier of the operation

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response codes

Error code	Description
14090440	File fingerprint operation has completed
14090446	Invalid session ID

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

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

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 file fingerprint information for a specific session ID

GET /storage/snaplock/file-fingerprints/{id}

Introduced In: 9.7

Retrieves the file fingerprint information for a specific session ID.

Related ONTAP commands

- `volume file fingerprint dump`

Learn more

- DOC /storage/snaplock/file-fingerprints

Parameters

Name	Type	In	Required	Description
id	string	path	True	Unique identifier of the operation

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

Response

Status: 200, Ok

Name	Type	Description
_links	_links	
algorithm	string	The digest algorithm which is used for the fingerprint computation
data_fingerprint	string	The digest value of data of the file. The fingerprint is base64 encoded. This field is not included if the scope is metadata-only.
file_size	integer	The size of the file in bytes.
file_type	string	The type of the file.
id	integer	A unique identifier for the fingerprint operation
metadata_fingerprint	string	The digest value of metadata of the file. The metadata fingerprint is calculated for file size, file ctime, file mtime, file crtime, file retention time, file uid, file gid, and file type. The fingerprint is base64 encoded. This field is not included if the scope is data-only.
path	string	Specifies the path on which file fingerprint operation is running or has completed. Specifies the path relative to the output volume root, of the form "/path". The path can be path to a file or a directory.
scope	string	The scope of the file which is used for the fingerprint computation

Name	Type	Description
state	string	Specifies the status of fingerprint operation.
svm	svm	
volume	volume	

Example response

```json
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "algorithm": "sha256",
  "data_fingerprint": "MOFJVevxNSJm3C/4Bn5oEEYH51CrudOzZYK4r5Cfy1g=",
  "file_size": "1048576",
  "file_type": "worm",
  "id": "17039367",
  "metadata_fingerprint":
"8iMjqJXiNcqgXT5XuRhLiEwIrJEihDmwS0hrexnjgmc=",
  "path": "/homedir/dir1",
  "scope": "data_only",
  "state": "completed",
  "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"
  }
}
```

Error

```
Status: Default
```

ONTAP Error Response codes

Error code	Description
14090441	Invalid key values. Provide session ID or Vserver UUID and volume UUID
14090449	File fingerprint operation has not completed

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	href	

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

volume

Name	Type	Description
_links	_links	
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. • example: 028baa66-41bd-11e9-81d5-00a0986138f7 • Introduced in: 9.6

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

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.