



# **Manage storage tape devices**

## **ONTAP 9.10.1 REST API Documentation**

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# Manage storage tape devices

## Storage tape-devices endpoint overview

### Retrieving storage tape information

The storage tape GET API retrieves all of the tapes in the cluster.

### Examples

#### 1) Retrieving a list of tapes from the cluster

The following example returns the list of tapes in the cluster:

```
# The API:
/api/storage/tape-devices

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/tape-devices" -H "accept:
application/hal+json"

# The response:
{
  "records": [
    {
      "node": {
        "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
        "name": "st-8020-1-01",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-
00a0985ebbe7"
          }
        }
      },
      "device_id": "2d.0",
      "_links": {
        "self": {
          "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-
00a0985ebbe7/2d.0"
        }
      }
    }
  ],
}
```

```

{
  "node": {
    "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
    "name": "st-8020-1-01",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
      }
    }
  },
  "device_id": "2d.0L1",
  "_links": {
    "self": {
      "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/2d.0L1"
    }
  }
},
{
  "node": {
    "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
    "name": "st-8020-1-01",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
      }
    }
  },
  "device_id": "qeg-tape-brocade2-8g:0.126",
  "_links": {
    "self": {
      "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/qeg-tape-brocade2-8g%3A0.126"
    }
  }
},
{
  "node": {
    "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
    "name": "st-8020-1-01",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
      }
    }
  }
}

```

```

    }
  },
  "device_id": "stsw-broc6510-01:11.126",
  "_links": {
    "self": {
      "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/stsw-broc6510-01%3A11.126"
    }
  }
},
{
  "node": {
    "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
    "name": "st-8020-1-01",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
      }
    }
  },
  "device_id": "stsw-broc6510-01:15.126",
  "_links": {
    "self": {
      "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/stsw-broc6510-01%3A15.126"
    }
  }
},
{
  "node": {
    "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
    "name": "st-8020-1-01",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
      }
    }
  },
  "device_id": "stsw-broc6510-01:15.126L1",
  "_links": {
    "self": {
      "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/stsw-broc6510-01%3A15.126L1"
    }
  }
}

```

```

    }
  },
  {
    "node": {
      "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
      "name": "st-8020-1-01",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
        }
      }
    },
    "device_id": "stsw-broc6510-01:22.126",
    "_links": {
      "self": {
        "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/stsw-broc6510-01%3A22.126"
      }
    }
  },
  {
    "node": {
      "uuid": "4083be52-5315-11eb-a839-00a0985ebbe7",
      "name": "st-8020-1-01",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/4083be52-5315-11eb-a839-00a0985ebbe7"
        }
      }
    },
    "device_id": "stsw-broc6510-01:23.126",
    "_links": {
      "self": {
        "href": "/api/storage/tape-devices/4083be52-5315-11eb-a839-00a0985ebbe7/stsw-broc6510-01%3A23.126"
      }
    }
  },
],
"num_records": 7,
"_links": {
  "self": {
    "href": "/api/storage/tape-devices"
  }
}

```

```
}  
}  
}
```

## 2) Retrieving a specific tape device from the cluster

The following example returns the requested tape device. If there is no tape with the requested UID, an error is returned.

```
# The API:  
/api/storage/tape-devices/{node.uuid}/{device_id}  
  
# The call:  
curl -X GET "https://<mgmt-ip>/api/storage/tape-devices/5f5275eb-5315-11eb-8ac4-00a0985e0dcf/2d.0" -H "accept: application/hal+json"  
  
# The response:  
{  
  "node": {  
    "uuid": "5f5275eb-5315-11eb-8ac4-00a0985e0dcf",  
    "name": "st-8020-1-02",  
    "_links": {  
      "self": {  
        "href": "/api/cluster/nodes/5f5275eb-5315-11eb-8ac4-00a0985e0dcf"  
      }  
    }  
  },  
  "device_id": "2d.0",  
  "type": "tape",  
  "description": "IBM LTO-6 ULT3580",  
  "alias": {  
    "name": "st7",  
    "mapping": "SN[1068000245]"  
  },  
  "wwnn": "5001697722ee0010",  
  "wwpn": "5001697722ee0011",  
  "serial_number": "1068000245",  
  "interface": "sas",  
  "device_state": "offline",  
  "formats": [  
    "LTO-4/5 Native Density",  
    "LTO-4/5 Compressed",  
    "LTO-6 2.5TB",  
  ]  
}
```

```

    "LTO-6 6.25TB Compressed"
  ],
  "storage_port": {
    "name": "2d"
  },
  "file_number": -1,
  "block_number": -1,
  "residual_count": 0,
  "device_names": [
    {
      "rewind_device": "rst0l",
      "no_rewind_device": "nrst0l",
      "unload_reload_device": "urst0l"
    },
    {
      "rewind_device": "rst0m",
      "no_rewind_device": "nrst0m",
      "unload_reload_device": "urst0m"
    },
    {
      "rewind_device": "rst0h",
      "no_rewind_device": "nrst0h",
      "unload_reload_device": "urst0h"
    },
    {
      "rewind_device": "rst0a",
      "no_rewind_device": "nrst0a",
      "unload_reload_device": "urst0a"
    }
  ],
  "reservation_type": "off",
  "_links": {
    "self": {
      "href": "/api/storage/tape-devices/5f5275eb-5315-11eb-8ac4-00a0985e0dcf/2d.0"
    }
  }
}

```

## Retrieve tape devices

GET /storage/tape-devices

Introduced In: 9.9



Retrieves a collection of tape devices.

## Related ONTAP commands

- `storage tape show`

## Learn more

- [DOC /storage/tape-devices](#)

## Parameters

Name	Type	In	Required	Description
block_number	integer	query	False	Filter by block_number
interface	string	query	False	Filter by interface
storage_port.name	string	query	False	Filter by storage_port.name
wwpn	string	query	False	Filter by wwpn
device_names.rewind_device	string	query	False	Filter by device_names.rewind_device
device_names.unload_reload_device	string	query	False	Filter by device_names.unload_reload_device
device_names.no_rewind_device	string	query	False	Filter by device_names.no_rewind_device
file_number	integer	query	False	Filter by file_number
node.uuid	string	query	False	Filter by node.uuid
node.name	string	query	False	Filter by node.name
reservation_type	string	query	False	Filter by reservation_type
serial_number	string	query	False	Filter by serial_number

Name	Type	In	Required	Description
device_state	string	query	False	Filter by device_state
residual_count	integer	query	False	Filter by residual_count
alias.name	string	query	False	Filter by alias.name
alias.mapping	string	query	False	Filter by alias.mapping
type	string	query	False	Filter by type
device_id	string	query	False	Filter by device_id
description	string	query	False	Filter by description
wwnn	string	query	False	Filter by wwnn
formats	string	query	False	Filter by formats
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="#">_links</a>	
num_records	integer	Number of records
records	array[ <a href="#">tape_device</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "alias": {
        "mapping": "SN[10WT000933]",
        "name": "st6"
      },
      "block_number": 0,
      "description": "QUANTUM LTO-8 ULTRIUM",
      "device_id": "1a.0",
      "device_names": [
        {
          "no_rewind_device": "nrst6l",
          "rewind_device": "rst6l",
          "unload_reload_device": "urst6l"
        }
      ],
      "device_state": "read_write_enabled",
      "file_number": 0,
      "formats": [
        "LTO-7 6TB",
        "LTO-7 15TB Compressed",
        "LTO-8 12TB",
        "LTO-8 30TB Compressed"
      ],
      "interface": "sas",
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "reservation_type": "off",
    }
  ]
}
```

```
"residual_count": 0,
"serial_number": "10WT00093",
"storage_port": {
  "name": "2b"
},
"type": "tape",
"wwnn": "500507631295741c",
"wwpn": "500507631295741c"
}
]
}
```

## 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
next	<a href="#">href</a>	
self	<a href="#">href</a>	

alias

Name	Type	Description
mapping	string	Alias mapping.
name	string	Alias name.

device\_names

Name	Type	Description
no_rewind_device	string	Device name for no rewind.
rewind_device	string	Device name for rewind.
unload_reload_device	string	Device name for unload or reload operations.

\_links

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

node

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

storage\_port

Name	Type	Description
name	string	Initiator port.

#### tape\_device

Name	Type	Description
alias	<a href="#">alias</a>	
block_number	integer	Block number.
description	string	
device_id	string	
device_names	array[ <a href="#">device_names</a> ]	
device_state	string	Operational state of the device.
file_number	integer	File number.
formats	array[string]	Tape cartridge format.
interface	string	Device interface type.
node	<a href="#">node</a>	
reservation_type	string	
residual_count	integer	Residual count of the last I/O operation.
serial_number	string	
storage_port	<a href="#">storage_port</a>	
type	string	Device type.
wwnn	string	World Wide Node Name.
wwpn	string	World Wide Port Name.

#### 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 tape device

GET /storage/tape-devices/{node.uuid}/{device\_id}

Introduced In: 9.9

Retrieves a specific tape.

### Related ONTAP commands

- `storage tape show`

### Learn more

- [DOC /storage/tape-devices](#)

### Parameters

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

### Response

Status: 200, Ok

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



Name	Type	Description
block_number	integer	Block number.
description	string	
device_id	string	
device_names	array[ <a href="#">device_names</a> ]	
device_state	string	Operational state of the device.
file_number	integer	File number.
formats	array[string]	Tape cartridge format.
interface	string	Device interface type.
node	<a href="#">node</a>	
reservation_type	string	
residual_count	integer	Residual count of the last I/O operation.
serial_number	string	
storage_port	<a href="#">storage_port</a>	
type	string	Device type.
wwnn	string	World Wide Node Name.
wwpn	string	World Wide Port Name.

## Example response

```
{
  "alias": {
    "mapping": "SN[10WT000933]",
    "name": "st6"
  },
  "block_number": 0,
  "description": "QUANTUM LTO-8 ULTRIUM",
  "device_id": "1a.0",
  "device_names": [
    {
      "no_rewind_device": "nrst6l",
      "rewind_device": "rst6l",
      "unload_reload_device": "urst6l"
    }
  ],
  "device_state": "read_write_enabled",
  "file_number": 0,
  "formats": [
    "LTO-7 6TB",
    "LTO-7 15TB Compressed",
    "LTO-8 12TB",
    "LTO-8 30TB Compressed"
  ],
  "interface": "sas",
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "name": "node1",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"reservation_type": "off",
"residual_count": 0,
"serial_number": "10WT00093",
"storage_port": {
  "name": "2b"
},
"type": "tape",
"wwnn": "500507631295741c",
"wwpn": "500507631295741c"
}
```

## 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

alias

Name	Type	Description
mapping	string	Alias mapping.
name	string	Alias name.

device\_names

Name	Type	Description
no_rewind_device	string	Device name for no rewind.
rewind_device	string	Device name for rewind.
unload_reload_device	string	Device name for unload or reload operations.

href

Name	Type	Description
href	string	

\_links

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

node

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

storage\_port

Name	Type	Description
name	string	Initiator port.

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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