Manage shelves

REST API reference

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Manage shelves

Storage shelves endpoint overview

Retrieving storage shelf information

The storage shelf GET API retrieves all of the shelves in the cluster.

Examples

1) Retrieve a list of shelves from the cluster

The following example shows the response with a list of shelves in the cluster:

```
# The API:
/api/storage/shelves

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

# The response:
{
"records": [
  {
    "uid": "3109174803597886800",
    "_links": {
      "self": {
        "href": "/api/storage/shelves/3109174803597886800"
      }
    }
  },
  {
    "uid": "9237728366621690448",
    "_links": {
      "self": {
        "href": "/api/storage/shelves/9237728366621690448"
      }
    }
  },
  {
    "uid": "9946762738829886800",
    "_links": {
```

```
      "self": {
        "href": "/api/storage/shelves/9946762738829886800"
      }
    }
  },
  {
    "uid": "10318311901725526608",
    "_links": {
      "self": {
        "href": "/api/storage/shelves/10318311901725526608"
      }
    }
  },
  {
    "uid": "13477584846688355664",
    "_links": {
      "self": {
        "href": "/api/storage/shelves/13477584846688355664"
      }
    }
  }
],
"num_records": 5,
"_links": {
  "self": {
    "href": "/api/storage/shelves/"
  }
}
}
```

2) Retrieve a specific shelf from the cluster

The following example shows the response of the requested shelf. If there is no shelf with the requested uid, an error is returned.

```
# The API:
/api/storage/shelves/{uid}

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/shelves/3109174803597886800" -H
"accept: application/hal+json"

# The response:
```

```
{
"uid": "3109174803597886800",
"name": "6.10",
"id": "10",
"serial_number": "SHU0954292N0HAH",
"model": "DS4246",
"module_type": "iom6",
"internal": false,
"state": "ok",
"connection_type": "sas",
"disk_count": 24,
"paths": [
  {
    "name": "0e",
    "node": {
      "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
      "name": "node-1",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-
00a0985a72ee"
        }
      }
    },
    "_links": {
      "self": {
        "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-
00a0985a72ee/0e"
      }
    }
  },
  {
    "name": "0g",
    "node": {
      "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
      "name": "node-1",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-
00a0985a72ee"
        }
      }
    },
    "_links": {
      "self": {
        "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-
```

```
00a0985a72ee/0g"
      }
    }
  }
],
"bays": [
  {
    "id": 0,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 1,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 2,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 3,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 4,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 5,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 6,
    "has_disk": true,
    "type": "single_disk",
```

```
    "state": "ok"
  },
  {
    "id": 7,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 8,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 9,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 10,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 11,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 12,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 13,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 14,
```

```
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 15,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 16,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 17,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 18,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 19,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 20,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
  {
    "id": 21,
    "has_disk": true,
    "type": "single_disk",
    "state": "ok"
  },
```

```
    {
      "id": 22,
      "has_disk": true,
      "type": "single_disk",
      "state": "ok"
    },
    {
      "id": 23,
      "has_disk": true,
      "type": "single_disk",
      "state": "ok"
    }
  ],
  "frus": [
    {
      "type": "module",
      "id": 0,
      "state": "ok",
      "part_number": "111-00690+B2",
      "serial_number": "8001900099",
      "firmware_version": "0191"
    },
    {
      "type": "module",
      "id": 1,
      "state": "ok",
      "part_number": "111-00190+B0",
      "serial_number": "7903785183",
      "firmware_version": "0191"
    },
    {
      "type": "psu",
      "id": 1,
      "state": "ok",
      "part_number": "0082562-12",
      "serial_number": "PMW82562007513E",
      "firmware_version": "0311"
    },
    {
      "type": "psu",
      "id": 2,
      "state": "ok",
      "part_number": "0082562-12",
      "serial_number": "PMW825620075138",
      "firmware_version": "0311"
    },
```

```
    {
      "type": "psu",
      "id": 3,
      "state": "ok",
      "part_number": "0082562-12",
      "serial_number": "PMW8256200750BA",
      "firmware_version": "0311"
    },
    {
      "type": "psu",
      "id": 4,
      "state": "ok",
      "part_number": "0082562-12",
      "serial_number": "PMW8256200750A2",
      "firmware_version": "0311"
    }
  ],
  "ports": [
    {
      "id": 0,
      "module_id": "a",
      "designator": "square",
      "state": "connected",
      "internal": false,
      "wwn": "500A098000C9EDBF",
      "cable": {
        "identifier": "5001086000702488-500a098000c9edbf",
        "part_number": "112-00430+A0",
        "length": "2m",
        "serial_number": "APF16510229807"
      },
      "remote": {
        "wwn": "5001086000702488",
        "phy": "08"
      }
    },
    {
      "id": 1,
      "module_id": "a",
      "designator": "circle",
      "state": "connected",
      "internal": false,
      "wwn": "500A098000C9EDBF",
      "cable": {
        "identifier": "500a098000d5c4bf-500a098000c9edbf",
        "part_number": "112-00176+A0",
```

```
      "length": "0.5-1.0m",
      "serial_number": "APF133917610YT"
    },
    "remote": {
      "wwn": "500A098000D5C4BF",
      "phy": "00"
    }
  },
  {
    "id": 2,
    "module_id": "b",
    "designator": "square",
    "state": "connected",
    "internal": false,
    "wwn": "500A098004F208BF",
    "cable": {
      "identifier": "5001086000702648-500a098004f208bf",
      "part_number": "112-00430+A0",
      "length": "2m",
      "serial_number": "APF16510229540"
    },
    "remote": {
      "wwn": "5001086000702648",
      "phy": "08"
    }
  },
  {
    "id": 3,
    "module_id": "b",
    "designator": "circle",
    "state": "connected",
    "internal": false,
    "wwn": "500A098004F208BF",
    "cable": {
      "identifier": "500a0980062ba33f-500a098004f208bf",
      "part_number": "112-00176+20",
      "length": "0.5-1.0m",
      "serial_number": "832210017"
    },
    "remote": {
      "wwn": "500A0980062BA33F",
      "phy": "00"
    }
  }
],
"_links": {
```

```
  "self": {
    "href": "/api/storage/shelves/3109174803597886800"
  }
}
}
```

Retrieve shelves

GET `/storage/shelves`

Retrieves a collection of shelves.

Related ONTAP commands

- `storage shelf show`
- `storage shelf port show`
- `storage shelf drawer show`

Learn more

- DOC /storage/shelves

Parameters

Name	Type	In	Required	Description
uid	string	query	False	Filter by uid
connection_type	string	query	False	Filter by connection_type
drawers.id	integer	query	False	Filter by drawers.id
drawers.serial_number	string	query	False	Filter by drawers.serial_number
drawers.part_number	string	query	False	Filter by drawers.part_number
drawers.error	string	query	False	Filter by drawers.error

Name	Type	In	Required	Description
drawers.closed	boolean	query	False	Filter by drawers.closed
drawers.state	string	query	False	Filter by drawers.state
drawers.disk_count	integer	query	False	Filter by drawers.disk_count
module_type	string	query	False	Filter by module_type
bays.state	string	query	False	Filter by bays.state
bays.has_disk	boolean	query	False	Filter by bays.has_disk
bays.type	string	query	False	Filter by bays.type
bays.id	integer	query	False	Filter by bays.id
model	string	query	False	Filter by model
serial_number	string	query	False	Filter by serial_number
state	string	query	False	Filter by state
disk_count	integer	query	False	Filter by disk_count
frus.state	string	query	False	Filter by frus.state
frus.part_number	string	query	False	Filter by frus.part_number
frus.firmware_version	string	query	False	Filter by frus.firmware_version
frus.type	string	query	False	Filter by frus.type
frus.serial_number	string	query	False	Filter by frus.serial_number
frus.id	integer	query	False	Filter by frus.id

Name	Type	In	Required	Description
ports.module_id	string	query	False	Filter by ports.module_id
ports.wwn	string	query	False	Filter by ports.wwn
ports.cable.identifier	string	query	False	Filter by ports.cable.identifier
ports.cable.length	string	query	False	Filter by ports.cable.length
ports.cable.part_number	string	query	False	Filter by ports.cable.part_number
ports.cable.serial_number	string	query	False	Filter by ports.cable.serial_number
ports.state	string	query	False	Filter by ports.state
ports.remote.phy	string	query	False	Filter by ports.remote.phy
ports.remote.wwn	string	query	False	Filter by ports.remote.wwn
ports.remote.port	string	query	False	Filter by ports.remote.port
ports.remote.mac_address	string	query	False	Filter by ports.remote.mac_address
ports.remote.chassis	string	query	False	Filter by ports.remote.chassis
ports.mac_address	string	query	False	Filter by ports.mac_address
ports.internal	boolean	query	False	Filter by ports.internal
ports.designator	string	query	False	Filter by ports.designator

Name	Type	In	Required	Description
ports.id	integer	query	False	Filter by ports.id
internal	boolean	query	False	Filter by internal
name	string	query	False	Filter by name
paths.name	string	query	False	Filter by paths.name
paths.node.uuid	string	query	False	Filter by paths.node.uuid
paths.node.name	string	query	False	Filter by paths.node.name
id	string	query	False	Filter by id
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned.
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.
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[shelf]	

Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "bays": [
        {
          "id": 0,
          "state": "ok",
          "type": "single_disk"
        }
      ],
      "connection_type": "sas",
      "disk_count": 12,
      "drawers": [
        {
          "disk_count": 12,
          "error": "string",
          "part_number": "111-03071",
          "serial_number": "021604008263",
          "state": "ok"
        }
      ],
      "frus": [
        {
          "firmware_version": "0191",
          "part_number": "111-00690+A2",
          "serial_number": 8000166294,
          "state": "error",
          "type": "module"
        }
      ],
      "id": 1,
      "model": "DS2246",
      "module_type": "iom6",
      "name": 1.1,
      "paths": [
        {
```

```
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "2a",
          "node": {
            "_links": {
              "self": {
                "href": "/api/resourcelink"
              }
            },
            "name": "node1",
            "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
          }
        }
      ],
      "ports": [
        {
          "cable": {
            "identifier": "500a0980000b6c3f-50000d1703544b80",
            "length": "2m",
            "part_number": "112-00431+A0",
            "serial_number": 616930439
          },
          "designator": "square",
          "id": 0,
          "mac_address": "string",
          "module_id": "a",
          "remote": {
            "chassis": "string",
            "mac_address": "string",
            "phy": 12,
            "port": "string",
            "wwn": "50000D1703544B80"
          },
          "state": "connected",
          "wwn": "500A0980000B6C3F"
        }
      ],
      "serial_number": "SHFMS1514000895",
      "state": "ok",
      "uid": 7777841915827391056
    }
  ]
}
```

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
next	href	
self	href	

bays

Name	Type	Description
has_disk	boolean	
id	integer	
state	string	
type	string	

drawers

Name	Type	Description
closed	boolean	
disk_count	integer	
error	string	
id	integer	
part_number	string	
serial_number	string	
state	string	

frus

Name	Type	Description
firmware_version	string	
id	integer	
part_number	string	
serial_number	string	
state	string	

Name	Type	Description
type	string	

_links

Name	Type	Description
self	href	

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

paths

Storage port

Name	Type	Description
_links	_links	
name	string	
node	node	

cable

Name	Type	Description
identifier	string	
length	string	
part_number	string	
serial_number	string	

remote

Name	Type	Description
chassis	string	
mac_address	string	
phy	string	
port	string	
wwn	string	

ports

Name	Type	Description
cable	cable	
designator	string	
id	integer	
internal	boolean	
mac_address	string	
module_id	string	
remote	remote	
state	string	
wwn	string	

shelf

Name	Type	Description
bays	array[bays]	
connection_type	string	
disk_count	integer	
drawers	array[drawers]	
frus	array[frus]	
id	string	
internal	boolean	
model	string	
module_type	string	
name	string	
paths	array[paths]	
ports	array[ports]	
serial_number	string	
state	string	
uid	string	

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 a shelf

GET `/storage/shelves/{uid}`

Retrieves a specific shelf.

Related ONTAP commands

- `storage shelf show`
- `storage shelf port show`
- `storage shelf drawer show`

Learn more

- DOC /storage/shelves

Parameters

Name	Type	In	Required	Description
uid	string	path	True	Shelf UID
fields	array[string]	query	False	Specify the fields to return.

Response

```
Status: 200, Ok
```

Name	Type	Description
bays	array[bays]	

Name	Type	Description
connection_type	string	
disk_count	integer	
drawers	array[drawers]	
frus	array[frus]	
id	string	
internal	boolean	
model	string	
module_type	string	
name	string	
paths	array[paths]	
ports	array[ports]	
serial_number	string	
state	string	
uid	string	

Example response


```
{
  "bays": [
    {
      "id": 0,
      "state": "ok",
      "type": "single_disk"
    }
  ],
  "connection_type": "sas",
  "disk_count": 12,
  "drawers": [
    {
      "disk_count": 12,
      "error": "string",
      "part_number": "111-03071",
      "serial_number": "021604008263",
      "state": "ok"
    }
  ],
  "frus": [
    {
      "firmware_version": "0191",
      "part_number": "111-00690+A2",
      "serial_number": 8000166294,
      "state": "error",
      "type": "module"
    }
  ],
  "id": 1,
  "model": "DS2246",
  "module_type": "iom6",
  "name": 1.1,
  "paths": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "2a",
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
```

```
            }
          },
          "name": "node1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      }
    ],
    "ports": [
      {
        "cable": {
          "identifier": "500a0980000b6c3f-50000d1703544b80",
          "length": "2m",
          "part_number": "112-00431+A0",
          "serial_number": 616930439
        },
        "designator": "square",
        "id": 0,
        "mac_address": "string",
        "module_id": "a",
        "remote": {
          "chassis": "string",
          "mac_address": "string",
          "phy": 12,
          "port": "string",
          "wwn": "50000D1703544B80"
        },
        "state": "connected",
        "wwn": "500A0980000B6C3F"
      }
    ],
    "serial_number": "SHFMS1514000895",
    "state": "ok",
    "uid": 7777841915827391056
}
```


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

bays

Name	Type	Description
has_disk	boolean	
id	integer	
state	string	
type	string	

drawers

Name	Type	Description
closed	boolean	
disk_count	integer	
error	string	
id	integer	
part_number	string	
serial_number	string	
state	string	

frus

Name	Type	Description
firmware_version	string	
id	integer	
part_number	string	
serial_number	string	
state	string	
type	string	

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

paths

Storage port

Name	Type	Description
_links	_links	
name	string	
node	node	

cable

Name	Type	Description
identifier	string	
length	string	
part_number	string	
serial_number	string	

remote

Name	Type	Description
chassis	string	
mac_address	string	
phy	string	
port	string	
wwn	string	

ports

Name	Type	Description
cable	cable	
designator	string	
id	integer	
internal	boolean	
mac_address	string	

Name	Type	Description
module_id	string	
remote	remote	
state	string	
wwn	string	

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.

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