



# **Manage Ethernet switches**

## **ONTAP 9.10.1 REST API Documentation**

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# Manage Ethernet switches

## Network Ethernet switches endpoint overview

### Overview

This API can be used to get information about the ethernet switches used for cluster and/or storage networks. This API support GET and PATCH calls. The GET operation returns a list of discovered switches with status and configuration information. The PATCH can be used to modify state of the switch.

### Examples

#### Retrieving the ethernet switches for a cluster

The following example retrieves the ONTAP switches from the cluster. Note that if the *fields=\** parameter is not specified, the fields `snmp.version`, `snmp.credential`, `model`, `sw-version`, `reason`, `version-source`, `monitoring.enable`, `monitoring.subsystem.type` and `monitoring.subsystem.poll_interval` are not returned. Filters can be added on the fields to limit the results.

```
# The API:
GET network/ethernet/switches

# The call:
curl -X GET "https://<mgmt-
ip>/api/network/ethernet/switches?return_records=true" -H "accept:
application/json" -H "Content-Type: application/hal+json"

# The response:
{
  "records": [
    {
      "name": "RTP-CS01-510R11 (FOC22092K12)",
      "address": "172.26.207.77",
      "discovered": true,
      "model": "NX3232C",
      "monitoring": {
        "monitored": true,
        "reason": "None"
      },
      "network": "cluster",
      "serial_number": "Unknown",
      "snmp": {
        "version": "snmpv2c",
        "user": "cshml!"
      },
      "version": "Cisco Nexus Operating System (NX-OS) Software, Version
9.2(3)",
```

```

    "_links": {
      "self": {
        "href": "/api/network/ethernet/switches/RTP-CS01-510R11%28FOC22092K12%29"
      }
    },
    {
      "name": "RTP-CS01-510R12 (FOC22373C3P)",
      "address": "172.26.207.82",
      "discovered": true,
      "model": "NX3232C",
      "monitoring": {
        "monitored": true,
        "reason": "None"
      },
      "network": "cluster",
      "serial_number": "FOC22373C3P",
      "snmp": {
        "version": "snmpv2c",
        "user": "cshml!"
      },
      "version": "Cisco Nexus Operating System (NX-OS) Software, Version 9.2(3)",
      "_links": {
        "self": {
          "href": "/api/network/ethernet/switches/RTP-CS01-510R12%28FOC22373C3P%29"
        }
      }
    },
    {
      "name": "RTP-SS01-510R10 (FOC22170DFR)",
      "address": "172.26.207.65",
      "discovered": true,
      "model": "NX3232C",
      "monitoring": {
        "monitored": true,
        "reason": "None"
      },
      "network": "storage",
      "serial_number": "FOC22170DFR",
      "snmp": {
        "version": "snmpv2c",
        "user": "cshml!"
      },
      "version": "Cisco Nexus Operating System (NX-OS) Software, Version

```

```

9.3(3)",
  "_links": {
    "self": {
      "href": "/api/network/ethernet/switches/RTP-SS01-
510R10%28FOC22170DFR%29"
    }
  }
},
{
  "name": "RTP-SS02-510R10(FOC22131U6T)",
  "address": "172.26.207.66",
  "discovered": true,
  "model": "NX3232C",
  "monitoring": {
    "monitored": true,
    "reason": "None"
  },
  "network": "storage",
  "serial_number": "FOC22131U6T",
  "snmp": {
    "version": "snmpv2c",
    "user": "cshml!"
  },
  "version": "Cisco Nexus Operating System (NX-OS) Software, Version
9.3(3)",
  "_links": {
    "self": {
      "href": "/api/network/ethernet/switches/RTP-SS02-
510R10%28FOC22131U6T%29"
    }
  }
}
],
"num_records": 4,
"_links": {
  "self": {
    "href": "/api/network/ethernet/switches?fields=*&return_records=true"
  }
}
}
}

```

### Retrieving an ethernet switch for a cluster

The following example retrieves a single switch by the switchname using the API.

```
# The API:
GET /network/ethernet/switches{name}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ethernet/switches/RTP-SS02-510R10(FOC22131U6T?return_records=true" -H "accept: application/json" -H "Content-Type: application/hal+json"

# The response:
{
  "name": "RTP-SS02-510R10(FOC22131U6T)",
  "address": "172.26.207.66",
  "discovered": true,
  "model": "NX3232C",
  "monitoring": {
    "monitored": true,
    "reason": "None"
  },
  "network": "storage",
  "serial_number": "FOC22131U6T",
  "snmp": {
    "version": "snmpv2c",
    "user": "cshml!"
  },
  "version": "Cisco Nexus Operating System (NX-OS) Software, Version 9.3(3)",
  "_links": {
    "self": {
      "href": "/api/network/ethernet/switches/RTP-SS02-510R10(FOC22131U6T)"
    }
  }
}
```

---

## Configuring a switch

The following example configures SNMP credential and version on a switch.

```
# The API:
PATCH /network/ethernet/switches{name}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/network/ethernet/switches/sconqa-
corduroyl-03" -H "accept: application/json" -H "Content-Type:
application/hal+json" -d "{ \"snmp\": { \"version\": \"snmpv2c\",
\"user\": \"cshml!\"}}}"

# The response:
{}
```

## Retrieve Ethernet switches attached to a chassis

GET /network/ethernet/switches

**Introduced In:** 9.8

Retrieves the ethernet switches attached to the chassis.

### Related ONTAP commands

- `system switch ethernet show`

### Learn more

- [DOC /network/ethernet/switches](#)

### Parameters

Name	Type	In	Required	Description
snmp.version	string	query	False	Filter by snmp.version
snmp.user	string	query	False	Filter by snmp.user
serial_number	string	query	False	Filter by serial_number
address	string	query	False	Filter by address
name	string	query	False	Filter by name

Name	Type	In	Required	Description
model	string	query	False	Filter by model
discovered	boolean	query	False	Filter by discovered
version	string	query	False	Filter by version
network	string	query	False	Filter by network
monitoring.enabled	boolean	query	False	Filter by monitoring.enabled
monitoring.monitored	boolean	query	False	Filter by monitoring.monitored
monitoring.reason	string	query	False	Filter by monitoring.reason
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	<p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>



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

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">collection_links</a>	
num_records	integer	Number of Records
records	array[ <a href="#">switch</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "address": "string",
      "model": "string",
      "monitoring": {
        "reason": "string"
      },
      "name": "string",
      "network": "string",
      "serial_number": "string",
      "snmp": {
        "user": "string",
        "version": "string"
      },
      "version": "string"
    }
  ]
}
```

## Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

collection\_links

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

self\_link

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

monitoring

Name	Type	Description
enabled	boolean	Enable Health Monitoring.
monitored	boolean	Is Monitored.
reason	string	Reason For Not Monitoring.

snmp

Name	Type	Description
user	string	Community String or SNMPv3 Username.
version	string	SNMP Version.

switch

Ethernet Switch REST API

Name	Type	Description
_links	<a href="#">self_link</a>	
address	string	IP Address.

Name	Type	Description
discovered	boolean	Discovered By ONTAP CDP/LLDP <ul style="list-style-type: none"> <li>• readOnly: 1</li> <li>• Introduced in: 9.8</li> </ul>
model	string	Model Number.
monitoring	<a href="#">monitoring</a>	
name	string	Name.
network	string	Switch Network.
serial_number	string	Serial Number.
snmp	<a href="#">snmp</a>	
version	string	Software Version.

#### 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 Ethernet switch details

GET /network/ethernet/switches/{name}

**Introduced In:** 9.8

Retrieves the details of an ethernet switch.

## Related ONTAP commands

- `system switch ethernet show`

## Learn more

- [DOC /network/ethernet/switches](#)

## Parameters

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

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">self_link</a>	
address	string	IP Address.
discovered	boolean	Discovered By ONTAP CDP/LLDP <ul style="list-style-type: none"><li>• readOnly: 1</li><li>• Introduced in: 9.8</li></ul>
model	string	Model Number.
monitoring	<a href="#">monitoring</a>	
name	string	Name.
network	string	Switch Network.
serial_number	string	Serial Number.
snmp	<a href="#">snmp</a>	

Name	Type	Description
version	string	Software Version.

### Example response

```

{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "address": "string",
  "model": "string",
  "monitoring": {
    "reason": "string"
  },
  "name": "string",
  "network": "string",
  "serial_number": "string",
  "snmp": {
    "user": "string",
    "version": "string"
  },
  "version": "string"
}

```

### Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

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

## Definitions



## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

monitoring

Name	Type	Description
enabled	boolean	Enable Health Monitoring.
monitored	boolean	Is Monitored.
reason	string	Reason For Not Monitoring.

snmp

Name	Type	Description
user	string	Community String or SNMPv3 Username.
version	string	SNMP Version.

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

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

## Update an Ethernet switch

PATCH /network/ethernet/switches/{name}

**Introduced In:** 9.8

Update Ethernet Switch REST API

### Parameters

Name	Type	In	Required	Description
name	string	path	True	Switch Name

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

## Request Body

Name	Type	Description
_links	<a href="#">self_link</a>	
address	string	IP Address.
discovered	boolean	<p>Discovered By ONTAP CDP/LLDP</p> <ul style="list-style-type: none"> <li>• readOnly: 1</li> <li>• Introduced in: 9.8</li> </ul>
model	string	Model Number.
monitoring	<a href="#">monitoring</a>	

Name	Type	Description
name	string	Name.
network	string	Switch Network.
serial_number	string	Serial Number.
snmp	<a href="#">snmp</a>	
version	string	Software Version.

### Example request

```

{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "address": "string",
  "model": "string",
  "monitoring": {
    "reason": "string"
  },
  "name": "string",
  "network": "string",
  "serial_number": "string",
  "snmp": {
    "user": "string",
    "version": "string"
  },
  "version": "string"
}

```

### Response

Status: 202, Accepted

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

## Example response

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

## Error

Status: Default, Error

Name	Type	Description
error	error	

## Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

self\_link

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

monitoring

Name	Type	Description
enabled	boolean	Enable Health Monitoring.
monitored	boolean	Is Monitored.
reason	string	Reason For Not Monitoring.

snmp

Name	Type	Description
user	string	Community String or SNMPv3 Username.
version	string	SNMP Version.

switch

Ethernet Switch REST API

Name	Type	Description
_links	<a href="#">self_link</a>	
address	string	IP Address.
discovered	boolean	Discovered By ONTAP CDP/LLDP <ul style="list-style-type: none"><li>• readOnly: 1</li><li>• Introduced in: 9.8</li></ul>
model	string	Model Number.

Name	Type	Description
monitoring	<a href="#">monitoring</a>	
name	string	Name.
network	string	Switch Network.
serial_number	string	Serial Number.
snmp	<a href="#">snmp</a>	
version	string	Software Version.

#### \_links

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

#### job\_link

Name	Type	Description
<u>_links</u>	<a href="#">_links</a>	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message

<b>Name</b>	<b>Type</b>	<b>Description</b>
target	string	The target parameter that caused the error.



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