



# **Retrieve network Ethernet switch ports**

ONTAP 9.11.1 REST API reference

NetApp  
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# Retrieve network Ethernet switch ports

## Network Ethernet switch ports endpoint overview

### Overview

This API can be used to get the port information for an ethernet switch used in a cluster or storage networks. This API supports GET only. The GET operation returns a list of ports with status and configuration information.

### Examples

#### Retrieving the ports for ethernet switches

The following example retrieves the ethernet switch ports for all the ethernet switches used for cluster and/or storage networks. Note that if the *fields=\** parameter is not specified, the fields identity.number, statistics, and mac\_address are not returned. Filters can be added on the fields to limit the results.

```
# The API:
GET /network/ethernet/switch/ports

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

# The response: (abbreviated output due to length, shows a port connected
to a node, a port with no remote connection and a port connected to shelf)
{
  "records": [
    {
      "switch": {
        "name": "RTP-CS01-510R11(FOC22092K12)",
        "_links": {
          "self": {
            "href": "/api/network/ethernet/switches/RTP-CS01-
510R11(FOC22092K12)"
          }
        }
      },
      "identity": {
        "name": "Ethernet1/1",
        "index": 436207616,
        "number": 1,
        "type": "ethernetcsmacd"
      },
      "mtu": 9216,
      "duplex_type": "full_duplex",
```

```

"speed": 100000,
"configured": "up",
"state": "up",
"isl": false,
"statistics": {
  "receive_raw": {
    "packets": 1616467751,
    "errors": 0,
    "discards": 0
  },
  "transmit_raw": {
    "packets": 206717534,
    "errors": 0,
    "discards": 0
  }
},
"remote_port": {
  "mtu": 9000,
  "name": "e3a",
  "device": {
    "node": {
      "name": "stiA400-311",
      "uuid": "54c0f036-8a3a-11ea-893d-00a098fd726d",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/54c0f036-8a3a-11ea-893d-00a098fd726d"
        }
      }
    }
  }
},
"mac_address": "00:be:75:ae:2a:d4",
"vlan_id": [
  1,
  17,
  18,
  92
],
"_links": {
  "self": {
    "href": "/api/network/ethernet/switch/ports/RTP-CS01-510R11%28FOC22092K12%29/Ethernet1%2F1/436207616"
  }
}
},

```

```

{
  "switch": {
    "name": "RTP-CS01-510R11(FOC22092K12)",
    "_links": {
      "self": {
        "href": "/api/network/ethernet/switches/RTP-CS01-510R11(FOC22092K12)"
      }
    }
  },
  "identity": {
    "name": "Ethernet1/11",
    "index": 436212736,
    "number": 11,
    "type": "ethernetcsmacd"
  },
  "mtu": 9216,
  "duplex_type": "unknown",
  "speed": 100000,
  "configured": "up",
  "state": "down",
  "isl": false,
  "statistics": {
    "receive_raw": {
      "packets": 0,
      "errors": 0,
      "discards": 0
    },
    "transmit_raw": {
      "packets": 0,
      "errors": 0,
      "discards": 0
    }
  },
  "mac_address": "00be75ae2afc",
  "vlan_id": [
    1,
    17,
    18,
    92
  ],
  "_links": {
    "self": {
      "href": "/api/network/ethernet/switch/ports/RTP-CS01-510R11%28FOC22092K12%29/Ethernet1%2F11/436212736"
    }
  }
}

```

```

    }
  },
  {
    "switch": {
      "name": "RTP-SS01-510R10 (FOC22170DFR) ",
      "_links": {
        "self": {
          "href": "/api/network/ethernet/switches/RTP-SS01-510R10 (FOC22170DFR) "
        }
      }
    },
    "identity": {
      "name": "Ethernet1/10",
      "index": 436212224,
      "number": 10,
      "type": "ethernetcsmacd"
    },
    "mtu": 9216,
    "duplex_type": "full_duplex",
    "speed": 100000,
    "configured": "up",
    "state": "up",
    "isl": false,
    "statistics": {
      "receive_raw": {
        "packets": 332013844,
        "errors": 0,
        "discards": 0
      },
      "transmit_raw": {
        "packets": 2429595607,
        "errors": 0,
        "discards": 0
      }
    },
    "remote_port": {
      "mtu": 9000,
      "name": "e0a",
      "device": {
        "shelf": {
          "name": "SHFFG1828000004:B",
          "uid": "12439000444923584512",
          "_links": {
            "self": {
              "href": "/api/storage/shelves/12439000444923584512"
            }
          }
        }
      }
    }
  }
}

```

```

    }
  }
}
},
"mac_address": "00fcbaead548",
"vlan_id": [
  1,
  30
],
"_links": {
  "self": {
    "href": "/api/network/ethernet/switch/ports/RTP-SS01-510R10%28FOC22170DFR%29/Ethernet1%2F10/436212224"
  }
}
},
"num_records": 138,
"_links": {
  "self": {
    "href": "/api/network/ethernet/switch/ports?fields=*"
  }
}
}
}

```

## Retrieving a ports on an ethernet switch

```

# The API:
GET
/network/ethernet/switch/ports/{switch.name}/{identity.name}/{identity.index}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ethernet/switch/ports/RTP-SS02-510R10%28FOC22131U6T%29/Ethernet1%2F9/436211712" -H "accept: application/json" -H "Content-Type: application/hal+json"

# The response:
{
  "switch": {
    "name": "RTP-SS02-510R10 (FOC22131U6T) ",
    "_links": {
      "self": {

```

```

    "href": "/api/network/ethernet/switches/RTP-SS02-
510R10(FOC22131U6T) "
  }
}
},
"identity": {
  "name": "Ethernet1/9",
  "index": 436211712,
  "number": 9,
  "type": "ethernetcsmaCd"
},
"mtu": 9216,
"duplex_type": "full_duplex",
"speed": 100000,
"configured": "up",
"state": "up",
"isl": false,
"statistics": {
  "receive_raw": {
    "packets": 4012559315,
    "errors": 0,
    "discards": 0
  },
  "transmit_raw": {
    "packets": 337898026,
    "errors": 0,
    "discards": 0
  }
},
"remote_port": {
  "mtu": 9000,
  "name": "e0b",
  "device": {
    "shelf": {
      "name": "SHFFG1828000004:A",
      "uid": "12439000444923584512",
      "_links": {
        "self": {
          "href": "/api/storage/shelves/12439000444923584512"
        }
      }
    }
  }
},
"mac_address": "00fcbaea7228",
"vlan_id": [

```



```
1,  
30  
],  
"_links": {  
  "self": {  
    "href": "/api/network/ethernet/switch/ports/RTP-SS02-  
510R10%28FOC22131U6T%29/Ethernet1%2F9/436211712"  
  }  
}  
}
```

## Retrieve Ethernet switch ports

GET /network/ethernet/switch/ports

**Introduced In:** 9.8

Retrieves the ethernet switch ports.

### Related ONTAP commands

- `system switch ethernet interface show`

### Learn more

- [DOC /network/ethernet/switch/ports](#)

### Parameters

Name	Type	In	Required	Description
mac_address	string	query	False	Filter by mac_address
speed	integer	query	False	Filter by speed
duplex_type	string	query	False	Filter by duplex_type
state	string	query	False	Filter by state
mtu	integer	query	False	Filter by mtu
configured	string	query	False	Filter by configured
isl	boolean	query	False	Filter by isl

Name	Type	In	Required	Description
switch.name	string	query	False	Filter by switch.name
remote_port.device. node.uuid	string	query	False	Filter by remote_port.device. node.uuid
remote_port.device. node.name	string	query	False	Filter by remote_port.device. node.name
remote_port.device.s helf.uuid	string	query	False	Filter by remote_port.device. shelf.uuid
remote_port.mtu	integer	query	False	Filter by remote_port.mtu
remote_port.name	string	query	False	Filter by remote_port.name
type	string	query	False	Filter by type
statistics.receive_ra w.packets	integer	query	False	Filter by statistics.receive_ra w.packets
statistics.receive_ra w.errors	integer	query	False	Filter by statistics.receive_ra w.errors
statistics.receive_ra w.discards	integer	query	False	Filter by statistics.receive_ra w.discards
statistics.transmit_ra w.packets	integer	query	False	Filter by statistics.transmit_ra w.packets
statistics.transmit_ra w.errors	integer	query	False	Filter by statistics.transmit_ra w.errors
statistics.transmit_ra w.discards	integer	query	False	Filter by statistics.transmit_ra w.discards

Name	Type	In	Required	Description
identity.index	integer	query	False	Filter by identity.index
identity.number	integer	query	False	Filter by identity.number
identity.name	string	query	False	Filter by identity.name
vlan_id	integer	query	False	Filter by vlan_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	<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>
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_port</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "configured": "down",
    "duplex_type": "full_duplex",
    "identity": {
      "index": 0,
      "name": "string",
      "number": 0
    },
    "mac_address": "string",
    "mtu": 0,
    "remote_port": {
      "device": {
        "node": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "node1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        },
        "shelf": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "uid": "7777841915827391056"
        }
      }
    }
  },
}
```

```

    "mtu": 0,
    "name": "string"
  },
  "speed": 0,
  "state": "dormant",
  "statistics": {
    "receive_raw": {
      "discards": 100,
      "errors": 200,
      "packets": 500
    },
    "transmit_raw": {
      "discards": 100,
      "errors": 200,
      "packets": 500
    }
  },
  "switch": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "RTP-SS01-510R03 (FOC223443KQ) "
  },
  "type": "ethernetcsmacd",
  "vlan_id": {
  }
}

```

## 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>	

identity

Name	Type	Description
index	integer	Interface Index.
name	string	Interface Name.
number	integer	Interface Number.

\_links

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

node

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

shelf

Shelf connected to this port.



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

device

Device connected to port.

Name	Type	Description
node	<a href="#">node</a>	
shelf	<a href="#">shelf</a>	Shelf connected to this port.

remote\_port

Remote port

Name	Type	Description
device	<a href="#">device</a>	Device connected to port.
mtu	integer	MTU in octets
name	string	Port Name.

receive\_raw

Packet receive counters for the Ethernet port.

Name	Type	Description
discards	integer	Total number of discarded packets.
errors	integer	Number of packet errors.
packets	integer	Total packet count.

transmit\_raw

Packet transmit counters for the Ethernet port.

Name	Type	Description
discards	integer	Total number of discarded packets.

Name	Type	Description
errors	integer	Number of packet errors.
packets	integer	Total packet count.

statistics

These are raw counters for the device associated with the Ethernet port.

Name	Type	Description
receive_raw	<a href="#">receive_raw</a>	Packet receive counters for the Ethernet port.
transmit_raw	<a href="#">transmit_raw</a>	Packet transmit counters for the Ethernet port.

switch

The name of the specified cluster or storage switch.

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

switch\_port

Ethernet Switch Port REST API

Name	Type	Description
_links	<a href="#">self_link</a>	
configured	string	Administrative Status.
duplex_type	string	Duplex Settings.
identity	<a href="#">identity</a>	
isl	boolean	Is configured as an ISL link.
mac_address	string	MAC Address.
mtu	integer	MTU.
remote_port	<a href="#">remote_port</a>	Remote port

Name	Type	Description
speed	integer	Interface Speed(Mbps)
state	string	Operational Status.
statistics	<a href="#">statistics</a>	These are raw counters for the device associated with the Ethernet port.
switch	<a href="#">switch</a>	The name of the specified cluster or storage switch.
type	string	Interface Type.
vlan_id	array[integer]	

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 an Ethernet switch port

GET /network/ethernet/switch/ports/{switch}/{identity.name}/{identity.index}

**Introduced In:** 9.8

Retrieves an ethernet switch port.

## Related ONTAP commands

- `system switch ethernet interface show`

## Parameters

Name	Type	In	Required	Description
switch	string	path	True	Switch Name
identity.name	string	path	True	Interface Name
identity.index	integer	path	True	Interface Index
fields	array[string]	query	False	Specify the fields to return.

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">self_link</a>	
configured	string	Administrative Status.
duplex_type	string	Duplex Settings.
identity	<a href="#">identity</a>	
isl	boolean	Is configured as an ISL link.
mac_address	string	MAC Address.
mtu	integer	MTU.
remote_port	<a href="#">remote_port</a>	Remote port
speed	integer	Interface Speed(Mbps)
state	string	Operational Status.
statistics	<a href="#">statistics</a>	These are raw counters for the device associated with the Ethernet port.

Name	Type	Description
switch	<a href="#">switch</a>	The name of the specified cluster or storage switch.
type	string	Interface Type.
vlan_id	array[integer]	

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "configured": "down",
  "duplex_type": "full_duplex",
  "identity": {
    "index": 0,
    "name": "string",
    "number": 0
  },
  "mac_address": "string",
  "mtu": 0,
  "remote_port": {
    "device": {
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "shelf": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "uid": "7777841915827391056"
      }
    },
    "mtu": 0,
    "name": "string"
  },
  "speed": 0,
  "state": "dormant",
  "statistics": {
    "receive_raw": {
      "discards": 100,
      "errors": 200,
```

```

    "packets": 500
  },
  "transmit_raw": {
    "discards": 100,
    "errors": 200,
    "packets": 500
  }
},
"switch": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "RTP-SS01-510R03 (FOC223443KQ) "
},
"type": "ethernetcsmacd",
"vlan_id": {
}
}

```

## 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>	

identity

Name	Type	Description
index	integer	Interface Index.
name	string	Interface Name.
number	integer	Interface Number.

\_links

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

node

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

shelf

Shelf connected to this port.

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

device

Device connected to port.

Name	Type	Description
node	<a href="#">node</a>	
shelf	<a href="#">shelf</a>	Shelf connected to this port.

remote\_port

Remote port

Name	Type	Description
device	<a href="#">device</a>	Device connected to port.
mtu	integer	MTU in octets
name	string	Port Name.

receive\_raw

Packet receive counters for the Ethernet port.

Name	Type	Description
discards	integer	Total number of discarded packets.
errors	integer	Number of packet errors.
packets	integer	Total packet count.

transmit\_raw

Packet transmit counters for the Ethernet port.

Name	Type	Description
discards	integer	Total number of discarded packets.
errors	integer	Number of packet errors.
packets	integer	Total packet count.

statistics

These are raw counters for the device associated with the Ethernet port.

Name	Type	Description
receive_raw	<a href="#">receive_raw</a>	Packet receive counters for the Ethernet port.
transmit_raw	<a href="#">transmit_raw</a>	Packet transmit counters for the Ethernet port.

switch

The name of the specified cluster or storage switch.

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

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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