



Retrieve network Ethernet switch ports

ONTAP 9.14.1 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/hal+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": "1.1",
          "module": "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/hal+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": "e0a",
    "device": {
      "shelf": {
        "name": "1.1",
        "module": "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 |
|-------------|---------|-------|----------|-----------------------|
| state | string | query | False | Filter by state |
| speed | integer | query | False | Filter by speed |
| configured | string | query | False | Filter by configured |
| vlan_id | integer | query | False | Filter by vlan_id |
| duplex_type | string | query | False | Filter by duplex_type |

| Name | Type | In | Required | Description |
|----------------------------------|---------|-------|----------|--|
| statistics.transmit_raw.errors | integer | query | False | Filter by statistics.transmit_raw.errors |
| statistics.transmit_raw.packets | integer | query | False | Filter by statistics.transmit_raw.packets |
| statistics.transmit_raw.discards | integer | query | False | Filter by statistics.transmit_raw.discards |
| statistics.receive_raw.errors | integer | query | False | Filter by statistics.receive_raw.errors |
| statistics.receive_raw.packets | integer | query | False | Filter by statistics.receive_raw.packets |
| statistics.receive_raw.discards | integer | query | False | Filter by statistics.receive_raw.discards |
| switch.name | string | query | False | Filter by switch.name |
| isl | boolean | query | False | Filter by isl |
| type | string | query | False | Filter by type |
| mtu | integer | query | False | Filter by mtu |
| mac_address | string | query | False | Filter by mac_address |
| remote_port.mtu | integer | query | False | Filter by remote_port.mtu |
| remote_port.device.node.name | string | query | False | Filter by remote_port.device.node.name |
| remote_port.device.node.uuid | string | query | False | Filter by remote_port.device.node.uuid |

| Name | Type | In | Required | Description |
|---------------------------------|---------------|-------|----------|---|
| remote_port.device.shelf.module | string | query | False | Filter by remote_port.device.shelf.module • Introduced in: 9.12 |
| remote_port.device.shelf.name | string | query | False | Filter by remote_port.device.shelf.name • Introduced in: 9.12 |
| remote_port.device.shelf.uid | string | query | False | Filter by remote_port.device.shelf.uid |
| remote_port.name | string | query | False | Filter by remote_port.name |
| identity.index | integer | query | False | Filter by identity.index |
| identity.name | string | query | False | Filter by identity.name |
| identity.number | integer | query | False | Filter by identity.number |
| 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. • Default value: 1 |

| 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"> • Default value: 1 • Max value: 120 • Min value: 0 |
| order_by | array[string] | query | False | Order results by specified fields and optional [asc |

Response

Status: 200, Ok

| Name | Type | Description |
|-------------|--------------------------------------|-------------------|
| _links | collection_links | |
| num_records | integer | Number of Records |
| records | array[switch_port] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "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"
            }
          },
          "module": "A",
          "name": "1.1",

```

```

        "uid": "12439000444923584512"
    }
},
"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 | returned_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 | href | |
| self | href | |

self_link

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

identity

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

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

shelf

Shelf connected to this port.

| Name | Type | Description |
|--------|------------------------|--------------------------------------|
| _links | _links | |
| module | string | Shelf module connected to this port. |
| name | string | |
| uid | string | |

device

Device connected to port.

| Name | Type | Description |
|-------|-----------------------|-------------------------------|
| node | node | |
| shelf | shelf | Shelf connected to this port. |

remote_port

Remote port.

| Name | Type | Description |
|--------|------------------------|---------------------------|
| device | device | 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 | receive_raw | Packet receive counters for the Ethernet port. |
| transmit_raw | transmit_raw | Packet transmit counters for the Ethernet port. |

switch

The name of the specified cluster or storage switch.

| Name | Type | Description |
|--------|---------------------------|-------------|
| _links | self_link | |
| name | string | |

switch_port

Ethernet Switch Port REST API

| Name | Type | Description |
|-------------|---------------------------|-------------------------------|
| _links | self_link | |
| configured | string | Administrative Status. |
| duplex_type | string | Duplex Settings. |
| identity | identity | |
| isl | boolean | Is configured as an ISL link. |
| mac_address | string | MAC Address. |
| mtu | integer | MTU. |

| Name | Type | Description |
|-------------|-----------------------------|--|
| remote_port | remote_port | Remote port. |
| speed | integer | Interface Speed(Mbps). |
| state | string | Operational Status. |
| statistics | statistics | These are raw counters for the device associated with the Ethernet port. |
| switch | switch | 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 |

returned_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 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 | self_link | |
| configured | string | Administrative Status. |
| duplex_type | string | Duplex Settings. |
| identity | identity | |
| isl | boolean | Is configured as an ISL link. |
| mac_address | string | MAC Address. |
| mtu | integer | MTU. |
| remote_port | remote_port | Remote port. |
| speed | integer | Interface Speed(Mbps). |
| state | string | Operational Status. |
| statistics | statistics | These are raw counters for the device associated with the Ethernet port. |

| Name | Type | Description |
|---------|----------------|--|
| switch | switch | 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"
          }
        },
        "module": "A",
        "name": "1.1",
        "uid": "12439000444923584512"
      }
    },
    "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 | returned_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 | href | |

identity

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

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

shelf

Shelf connected to this port.

| Name | Type | Description |
|--------|------------------------|--------------------------------------|
| _links | _links | |
| module | string | Shelf module connected to this port. |
| name | string | |
| uid | string | |

device

Device connected to port.

| Name | Type | Description |
|-------|-----------------------|-------------------------------|
| node | node | |
| shelf | shelf | Shelf connected to this port. |

remote_port

Remote port.

| Name | Type | Description |
|--------|------------------------|---------------------------|
| device | device | 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 | receive_raw | Packet receive counters for the Ethernet port. |
| transmit_raw | transmit_raw | Packet transmit counters for the Ethernet port. |

switch

The name of the specified cluster or storage switch.

| Name | Type | Description |
|--------|---------------------------|-------------|
| _links | self_link | |
| name | string | |

error_arguments

| Name | Type | Description |
|---------|--------|------------------|
| code | string | Argument code |
| message | string | Message argument |

returned_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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