View NVMe interfaces

REST API reference

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View NVMe interfaces

Protocols NVMe interfaces endpoint overview

Overview

NVMe interfaces are network interfaces configured to support an NVMe over Fabrics (NVMe-oF) protocol. The NVMe interfaces are Fibre Channel (FC) interfaces supporting an NVMe-oF data protocol. Regardless of the underlying physical and data protocol, NVMe interfaces are treated equally for host-side application configuration. This endpoint provides a consolidated view of all NVMe interfaces for the purpose of configuring host-side applications.

The NVMe interfaces REST API provides NVMe-specific information about network interfaces configured to support an NVMe-oF protocol.

NVMe interfaces must be created using the protocol-specific endpoints for FC interfaces. See POST /network/fc/interfaces . After creation, the interfaces are available via this interface.

Examples

Retrieving summary information for all NVMe interfaces

```
# The API:
GET /api/protocols/nvme/interfaces

# The call:
curl -X GET 'https://<mgmt-ip>/api/protocols/nvme/interfaces' -H 'accept:
application/hal+json'

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "013e2c44-0d30-11e9-a684-005056bbdb14",
      "name": "svm1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/013e2c44-0d30-11e9-a684-005056bbdb14"
        }
      }
    },
    "uuid": "74d69872-0d30-11e9-a684-005056bbdb14",
    "name": "nvme1",
    "_links": {
      "self": {
        "href": "/api/protocols/nvme/interfaces/74d69872-0d30-11e9-a684-
```

```
005056bbdb14"
      }
    }
  },
  {
    "svm": {
      "uuid": "013e2c44-0d30-11e9-a684-005056bbdb14",
      "name": "svm1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/013e2c44-0d30-11e9-a684-005056bbdb14"
        }
      }
    },
    "uuid": "77ded991-0d30-11e9-a684-005056bbdb14",
    "name": "nvme2",
    "_links": {
      "self": {
        "href": "/api/protocols/nvme/interfaces/77ded991-0d30-11e9-a684-
005056bbdb14"
      }
    }
  }
],
"num_records": 2,
"_links": {
  "self": {
    "href": "/api/protocols/nvme/interfaces"
  }
}
}
```

Retrieving detailed information for a specific NVMe interface

```
# The API:
GET /api/protocols/nvme/interfaces/{uuid}

# The call:
curl -X GET 'https://<mgmt-ip>/api/protocols/nvme/interfaces/77ded991-
0d30-11e9-a684-005056bbdb14' -H 'accept: application/hal+json'

# The response:
{
"svm": {
```

```
  "uuid": "013e2c44-0d30-11e9-a684-005056bbdb14",
  "name": "svm1",
  "_links": {
    "self": {
      "href": "/api/svm/svms/013e2c44-0d30-11e9-a684-005056bbdb14"
    }
  }
},
"uuid": "77ded991-0d30-11e9-a684-005056bbdb14",
"name": "nvme2",
"enabled": true,
"node": {
  "name": "node1",
  "uuid": "cd4d47fd-0d2e-11e9-a684-005056bbdb14",
  "_links": {
    "self": {
      "href": "/api/cluster/nodes/cd4d47fd-0d2e-11e9-a684-005056bbdb14"
    }
  }
},
"transport_address": "nn-0x2003005056bbdb14:pn-0x2005005056bbdb14",
"fc_interface": {
  "wwnn": "20:03:00:50:56:bb:db:14",
  "wwpn": "20:05:00:50:56:bb:db:14",
  "port": {
    "name": "1a",
    "uuid": "081ec491-0d2f-11e9-a684-005056bbdb14",
    "node": {
      "name": "node1"
    },
    "_links": {
      "self": {
        "href": "/api/network/fc/ports/081ec491-0d2f-11e9-a684-
005056bbdb14"
      }
    }
  },
  "_links": {
    "self": {
      "href": "/api/network/fc/interfaces/77ded991-0d30-11e9-a684-
005056bbdb14"
    }
  }
},
"_links": {
  "self": {
```

```
    "href": "/api/protocols/nvme/interfaces/77ded991-0d30-11e9-a684-
005056bbdb14"
  }
}
}
```

Retrieve NVMe interfaces

GET `/protocols/nvme/interfaces`

Introduced In: 9.6

Retrieves NVMe interfaces.

Related ONTAP commands

- `vserver nvme show-interface`

Learn more

- DOC /protocols/nvme/interfaces

Parameters

Name	Type	In	Required	Description
fc_interface.port.name	string	query	False	Filter by fc_interface.port.name
fc_interface.port.node.name	string	query	False	Filter by fc_interface.port.node.name
fc_interface.port.uuid	string	query	False	Filter by fc_interface.port.uuid
fc_interface.wwnn	string	query	False	Filter by fc_interface.wwnn
fc_interface.wwpn	string	query	False	Filter by fc_interface.wwpn
enabled	boolean	query	False	Filter by enabled

Name	Type	In	Required	Description
name	string	query	False	Filter by name
uuid	string	query	False	Filter by uuid
transport_address	string	query	False	Filter by transport_address
node.name	string	query	False	Filter by node.name
node.uuid	string	query	False	Filter by node.uuid
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
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
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. • Default value: 1 • Max value: 120 • Min value: 0

Name	Type	In	Required	Description
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[nvme_interface]	

Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "fc_interface": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "port": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "0a",
          "node": {
            "name": "node1"
          },
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        },
        "wwnn": "20:00:00:50:56:b4:13:a9",
        "wwpn": "20:00:00:50:56:b4:13:a8"
      },
      "name": "lif1",
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
```

```
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "transport_address": "nn-0x200a00a0989062da:pn-
0x200100a0989062da",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}
```


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	

_links

Name	Type	Description
self	href	

node

The node on which the FC port is located.

Name	Type	Description
name	string	The name of the node on which the FC port is located.

port

An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
_links	_links	
name	string	The name of the FC port.
node	node	The node on which the FC port is located.
uuid	string	The unique identifier of the FC port.

fc_interface

The attributes specific to a Fibre Channel-based NVMe interface.

Name	Type	Description
_links	_links	
port	port	An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.
wwnn	string	The WWNN (world wide node name) of the Fibre Channel NVMe interface.
wwpn	string	The WWPN (world wide port name) of the Fibre Channel NVMe interface.

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

nvme_interface

NVMe interfaces are network interfaces configured to support an NVMe over Fabrics (NVMe-oF) protocol. The NVMe interfaces are Fibre Channel interfaces supporting an NVMe-oF data protocol. Regardless of the underlying physical and data protocol, NVMe interfaces are treated equally for host-side application configuration. This endpoint provides a consolidated view of all NVMe interfaces for the purpose of configuring host-side applications.

NVMe interfaces must be created using the protocol-specific endpoints for Fibre Channel interfaces. See POST /network/fc/interfaces . After creation, the interfaces are available via this interface.

Name	Type	Description
_links	_links	

Name	Type	Description
enabled	boolean	The administrative state of the NVMe interface.
fc_interface	fc_interface	The attributes specific to a Fibre Channel-based NVMe interface.
name	string	The name of the NVMe interface.
node	node	
svm	svm	
transport_address	string	The transport address of the NVMe interface.
uuid	string	The unique identifier of the NVMe interface.

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 an NVMe interface

GET `/protocols/nvme/interfaces/{uuid}`

Introduced In: 9.6

Retrieves an NVMe interface.

Related ONTAP commands

- `vserver nvme show-interface`

Learn more

- DOC /protocols/nvme/interfaces

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	The unique identifier of the NVMe interface.
fields	array[string]	query	False	Specify the fields to return.

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
enabled	boolean	The administrative state of the NVMe interface.
fc_interface	fc_interface	The attributes specific to a Fibre Channel-based NVMe interface.
name	string	The name of the NVMe interface.
node	node	
svm	svm	
transport_address	string	The transport address of the NVMe interface.
uuid	string	The unique identifier of the NVMe interface.

Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "fc_interface": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "port": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "0a",
      "node": {
        "name": "node1"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "wwnn": "20:00:00:50:56:b4:13:a9",
    "wwpn": "20:00:00:50:56:b4:13:a8"
  },
  "name": "lif1",
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
```

```
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "transport_address": "nn-0x200a00a0989062da:pn-0x200100a0989062da",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```


Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
2621462	The supplied SVM does not exist.

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
self	href	

node

The node on which the FC port is located.

Name	Type	Description
name	string	The name of the node on which the FC port is located.

port

An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
_links	_links	
name	string	The name of the FC port.
node	node	The node on which the FC port is located.
uuid	string	The unique identifier of the FC port.

fc_interface

The attributes specific to a Fibre Channel-based NVMe interface.

Name	Type	Description
_links	_links	
port	port	An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
wwnn	string	The WWNN (world wide node name) of the Fibre Channel NVMe interface.
wwpn	string	The WWPN (world wide port name) of the Fibre Channel NVMe interface.

node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

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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