



# Fibre Channel API methods

## Element Software

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# Fibre Channel API methods

You can use Fibre Channel API methods to add, modify, or remove Fibre Channel node members of a storage cluster.

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## Find more information

- [SolidFire and Element Software Documentation](#)
- [Documentation for earlier versions of NetApp SolidFire and Element products](#)

## GetVolumeAccessGroupLunAssignments

You can use the `GetVolumeAccessGroupLunAssignments` method to retrieve details on LUN mappings of a specified volume access group.

### Parameter

This method has the following input parameter:

Name	Description	Type	Default value	Required
volumeAccessGroupID	A unique volume access group ID used to return information.	integer	None	Yes

### Return value

This method has the following return value:

Name	Description	Type
volumeAccessGroupLunAssignments	A list of all physical Fibre Channel ports, or a port for a single node.	JSON object

### Request example

Requests for this method are similar to the following example:

```
{
  "method": "GetVolumeAccessGroupLunAssignments",
  "params": {
    "volumeAccessGroupID": 5
  },
  "id" : 1
}
```

## Response example

This method returns a response similar to the following example:

```
{
  "id" : 1,
  "result" : {
    "volumeAccessGroupLunAssignments" : {
      "volumeAccessGroupID" : 5,
      "lunAssignments" : [
        {"volumeID" : 5, "lun" : 0},
        {"volumeID" : 6, "lun" : 1},
        {"volumeID" : 7, "lun" : 2},
        {"volumeID" : 8, "lun" : 3}
      ],
      "deletedLunAssignments" : [
        {"volumeID" : 44, "lun" : 44}
      ]
    }
  }
}
```

## New since version

9.6

## ListFibreChannelPortInfo

You can use the `ListFibreChannelPortInfo` method to list information about the Fibre Channel ports.

This API method is intended for use on individual nodes; a `userid` and `password` are required for access to individual Fibre Channel nodes. However, this method can be used on the cluster if the `force` parameter is set to `true`. When used on the cluster, all Fibre Channel interfaces are listed.

## Parameter

This method has the following input parameter:

Name	Description	Type	Default value	Required
force	Set to true to run on all nodes in the cluster.	boolean	None	No

## Return value

This method has the following return value:

Name	Description	Type
fibreChannelPorts	A list of all physical Fibre Channel ports, or a port for a single node.	<a href="#">fibreChannelPort</a> array

## Request example

Requests for this method are similar to the following example:

```
{
  "method": "ListFibreChannelPortInfo",
  "params": {},
  "id" : 1
}
```

## Response example

This method returns a response similar to the following example:

```
{
  "id": 1,
  "result": {
    "fibreChannelPortInfo": {
      "5": {
        "result": {
          "fibreChannelPorts": [
            {
              "firmware": "7.04.00 (d0d5)",
              "hbaPort": 1,
              "model": "QLE2672",
              "nPortID": "0xc70084",
              "pciSlot": 3,
            }
          ]
        }
      }
    }
  }
}
```

```
    "serial": "BFE1335E03500",
    "speed": "8 Gbit",
    "state": "Online",
    "switchWwn": "20:01:00:2a:6a:98:a3:41",
    "wwnn": "5f:47:ac:c8:3c:e4:95:00",
    "wwpn": "5f:47:ac:c0:3c:e4:95:0a"
  },
  {
    "firmware": "7.04.00 (d0d5)",
    "hbaPort": 2,
    "model": "QLE2672",
    "nPortID": "0x0600a4",
    "pciSlot": 3,
    "serial": "BFE1335E03500",
    "speed": "8 Gbit",
    "state": "Online",
    "switchWwn": "20:01:00:2a:6a:9c:71:01",
    "wwnn": "5f:47:ac:c8:3c:e4:95:00",
    "wwpn": "5f:47:ac:c0:3c:e4:95:0b"
  },
  {
    "firmware": "7.04.00 (d0d5)",
    "hbaPort": 1,
    "model": "QLE2672",
    "nPortID": "0xc70044",
    "pciSlot": 2,
    "serial": "BFE1335E04029",
    "speed": "8 Gbit",
    "state": "Online",
    "switchWwn": "20:01:00:2a:6a:98:a3:41",
    "wwnn": "5f:47:ac:c8:3c:e4:95:00",
    "wwpn": "5f:47:ac:c0:3c:e4:95:08"
  },
  {
    "firmware": "7.04.00 (d0d5)",
    "hbaPort": 2,
    "model": "QLE2672",
    "nPortID": "0x060044",
    "pciSlot": 2,
    "serial": "BFE1335E04029",
    "speed": "8 Gbit",
    "state": "Online",
    "switchWwn": "20:01:00:2a:6a:9c:71:01",
    "wwnn": "5f:47:ac:c8:3c:e4:95:00",
    "wwpn": "5f:47:ac:c0:3c:e4:95:09"
  }
}
```

```

]
}
},
"6": {
  "result": {
    "fibreChannelPorts": [
      {
        "firmware": "7.04.00 (d0d5)",
        "hbaPort": 1,
        "model": "QLE2672",
        "nPortID": "0x060084",
        "pciSlot": 3,
        "serial": "BFE1335E04217",
        "speed": "8 Gbit",
        "state": "Online",
        "switchWwn": "20:01:00:2a:6a:9c:71:01",
        "wwnn": "5f:47:ac:c8:3c:e4:95:00",
        "wwpn": "5f:47:ac:c0:3c:e4:95:02"
      },
      {
        "firmware": "7.04.00 (d0d5)",
        "hbaPort": 2,
        "model": "QLE2672",
        "nPortID": "0xc700a4",
        "pciSlot": 3,
        "serial": "BFE1335E04217",
        "speed": "8 Gbit",
        "state": "Online",
        "switchWwn": "20:01:00:2a:6a:98:a3:41",
        "wwnn": "5f:47:ac:c8:3c:e4:95:00",
        "wwpn": "5f:47:ac:c0:3c:e4:95:03"
      },
      {
        "firmware": "7.04.00 (d0d5)",
        "hbaPort": 1,
        "model": "QLE2672",
        "nPortID": "0xc70064",
        "pciSlot": 2,
        "serial": "BFE1341E09515",
        "speed": "8 Gbit",
        "state": "Online",
        "switchWwn": "20:01:00:2a:6a:98:a3:41",
        "wwnn": "5f:47:ac:c8:3c:e4:95:00",
        "wwpn": "5f:47:ac:c0:3c:e4:95:00"
      }
    ]
  }
}

```

```
    "firmware": "7.04.00 (d0d5)",
    "hbaPort": 2,
    "model": "QLE2672",
    "nPortID": "0x060064",
    "pciSlot": 2,
    "serial": "BFE1341E09515",
    "speed": "8 Gbit",
    "state": "Online",
    "switchWwn": "20:01:00:2a:6a:9c:71:01",
    "wwnn": "5f:47:ac:c8:3c:e4:95:00",
    "wwpn": "5f:47:ac:c0:3c:e4:95:01"
  }
]
}
}
}
```

## New since version

9.6

## ListFibreChannelSessions

You can use the `ListFibreChannelSessions` method to list information about the Fibre Channel sessions on a cluster.

### Parameters

This method has no input parameters.

### Return value

This method has the following return value:

Name	Description	Type
sessions	A list of objects describing active Fibre Channel sessions on the cluster.	<a href="#">session</a> array

### Request example

Requests for this method are similar to the following example:



```
{
  "method": "ListFibreChannelSessions",
  "params": {},
  "id" : 1
}
```

## Response example

This method returns a response similar to the following example:

```
{
  "id" : 1,
  "result" : {
    "sessions" : [
      {
        "initiatorWWPN" : "21:00:00:0e:1e:14:af:40",
        "nodeID" : 5,
        "serviceID" : 21,
        "targetWWPN": "5f:47:ac:c0:00:00:00:10",
        "volumeAccessGroupID": 7
      },
      {
        "initiatorWWPN" : "21:00:00:0e:1e:14:af:40",
        "nodeID" : 1,
        "serviceID" : 22,
        "targetWWPN": "5f:47:ac:c0:00:00:00:11",
        "volumeAccessGroupID": 7
      }
    ]
  }
}
```

## New since version

9.6

## ListNodeFibreChannelPortInfo

You can use the `ListNodeFibreChannelPortInfo` method to list information about the Fibre Channel ports on a node.

This API method is intended for use on individual nodes; a userid and password are required for access to individual Fibre Channel nodes. When used on the cluster, all Fibre Channel interfaces are listed.

## Parameter

This method has no input parameters.

## Return value

This method has the following return value:

Name	Description	Type
fibreChannelPorts	A list of all physical Fibre Channel ports, or a port for a single node.	<a href="#">fibreChannelPort</a> array

## Request example

Requests for this method are similar to the following example:

```
{
  "method": "ListNodeFibreChannelPortInfo",
  "params": {
    "nodeID": 5,
    "force": true
  },
  "id" : 1
}
```

## Response example

This method returns a response similar to the following example:

```
{
  "id": 1,
  "result": {
    "fibreChannelPorts": [
      {
        "firmware": "7.04.00 (d0d5)",
        "hbaPort": 1,
        "model": "QLE2672",
        "nPortID": "0xc7002c",
        "pciSlot": 3,
        "serial": "BFE1335E03500",
        "speed": "8 Gbit",
        "state": "Online",
        "switchWwn": "20:01:00:2a:6a:98:a3:41",
        "wwnn": "5f:47:ac:c8:35:54:02:00",
        "wwpn": "5f:47:ac:c0:35:54:02:02"
      }
    ]
  }
}
```

```

    },
    {
      "firmware": "7.04.00 (d0d5)",
      "hbaPort": 2,
      "model": "QLE2672",
      "nPortID": "0x06002d",
      "pciSlot": 3,
      "serial": "BFE1335E03500",
      "speed": "8 Gbit",
      "state": "Online",
      "switchWwn": "20:01:00:2a:6a:9c:71:01",
      "wwnn": "5f:47:ac:c8:35:54:02:00",
      "wwpn": "5f:47:ac:c0:35:54:02:03"
    },
    {
      "firmware": "7.04.00 (d0d5)",
      "hbaPort": 1,
      "model": "QLE2672",
      "nPortID": "0xc7002a",
      "pciSlot": 2,
      "serial": "BFE1335E04029",
      "speed": "8 Gbit",
      "state": "Online",
      "switchWwn": "20:01:00:2a:6a:98:a3:41",
      "wwnn": "5f:47:ac:c8:35:54:02:00",
      "wwpn": "5f:47:ac:c0:35:54:02:00"
    },
    {
      "firmware": "7.04.00 (d0d5)",
      "hbaPort": 2,
      "model": "QLE2672",
      "nPortID": "0x06002a",
      "pciSlot": 2,
      "serial": "BFE1335E04029",
      "speed": "8 Gbit",
      "state": "Online",
      "switchWwn": "20:01:00:2a:6a:9c:71:01",
      "wwnn": "5f:47:ac:c8:35:54:02:00",
      "wwpn": "5f:47:ac:c0:35:54:02:01"
    }
  ]
}
}

```

## New since version

9.6

# ModifyVolumeAccessGroupLunAssignments

You can use the `ModifyVolumeAccessGroupLunAssignments` method to define custom LUN assignments for specific volumes.

This method changes only LUN values set on the `lunAssignments` parameter in the volume access group. All other LUN assignments remain unchanged.

LUN assignment values must be unique for volumes in a volume access group. You cannot define duplicate LUN values within a volume access group. However, you can use the same LUN values again in different volume access groups.



Valid LUN values are 0 through 16383. The system generates an exception if you pass a LUN value outside of this range. None of the specified LUN assignments are modified if there is an exception.

### CAUTION:

If you change a LUN assignment for a volume with active I/O, the I/O can be disrupted. You should change the server configuration before changing volume LUN assignments.

## Parameters

This method has the following input parameters:

Name	Description	Type	Default value	Required
<code>volumeAccessGroupID</code>	Unique volume access group ID for which the LUN assignments will be modified.	integer	None	Yes
<code>lunAssignments</code>	The volume IDs with new assigned LUN values.	integer array	None	Yes

## Return value

This method has the following return value:

Name	Description	Type
<code>volumeAccessGroupLunAssignments</code>	An object containing details of the modified volume access group LUN assignments.	JSON object

## Request example

Requests for this method are similar to the following example:

```
{
  "method": "ModifyVolumeAccessGroupLunAssignments",
  "params": {
    "volumeAccessGroupID" : 218,
    "lunAssignments" : [
      {"volumeID" : 832, "lun" : 0},
      {"volumeID" : 834, "lun" : 1}
    ]
  },
  "id" : 1
}
```

## Response example

This method returns a response similar to the following example:

```
{
  "id": 1,
  "result": {
    "volumeAccessGroupLunAssignments": {
      "deletedLunAssignments": [],
      "lunAssignments": [
        {
          "lun": 0,
          "volumeID": 832
        },
        {
          "lun": 1,
          "volumeID": 834
        }
      ]
    },
    "volumeAccessGroupID": 218
  }
}
```

## New since version

9.6

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