Fibre Channel API methods

Element Software

NetApp
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Fibre Channel API methods

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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.	fibreChannelPort 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.	session 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.	fibreChannelPort 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
volumeAccessGroupID	Unique volume access group ID for which the LUN assignments will be modified.	integer	None	Yes
lunAssignments	The volume IDs with new assigned LUN values.	integer array	None	Yes

Return value

This method has the following return value:

Name	Description	Type
volumeAccessGroupLunAssignments	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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