lun mapping commands
ONTAP 9.13.1 commands
NetApp
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lun mapping commands

lun mapping add-reporting-nodes

Add Reporting Nodes

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

**Description**

This command is used before or after a data mobility event that modifies the owning node of the LUN to add the new optimized nodes to the specified LUN mapping’s reporting nodes.

For more information on managing reporting nodes in response to data mobility events, please see the Data ONTAP SAN Administration Guide.

**Parameters**

- **-vserver <Vserver Name>** - Vserver Name
  Specifies the name of the Vserver containing the LUN.

{ -path <path> - LUN Path
  Specifies the path of the LUN. Examples of correct LUN paths are `/vol/vol1/lun1` and `/vol/vol1/qtree1/lun1`.

| -volume <volume name> - Volume Name
  Specifies the volume that contains the LUN.

[ -qtree <qtree name> ] - Qtree Name
  Specifies the qtree that contains the LUN.

- **-lun <text>** - LUN Name
  Specifies the LUN name.

- **-g, -igroup <text>** - Igroup Name
  Specifies the igroup the LUN is mapped to.

{ -local-nodes <true> - Add Nodes for Current LUN Location
  Add the current LUN owner node and HA partner to the LUN mapping’s reporting nodes.

  This option should be used after a LUN mobility event to restore optimized access to the LUN.

| -destination-aggregate <aggregate name> - Add Nodes for Aggregate
  Add the specified aggregate’s owner node and HA partner to the LUN mapping’s reporting nodes.

  This option may be used prior to a LUN mobility event that changes the LUN’s containing aggregate.

| -destination-volume <volume name> - Add Nodes for Volume
  Add the specified volume’s owner node and HA partner to the LUN mapping’s reporting nodes.
This option may be used prior to a LUN mobility event that changes the LUN's containing volume.

| -all <true> - Add All Nodes (privilege: advanced) |

Set the LUN mapping to report on all nodes in preparation for a revert to a previous version of Data ONTAP.

Examples

```bash
cluster1::> lun mapping add-reporting-nodes -vserver vs1 -path /vol/vol1/lun1 -igroup ig1
```

Add the current owner node and HA partner for the LUN mapping of `/vol/vol1/lun1` to `igroup ig1`

```bash
cluster1::> lun mapping add-reporting-nodes -vserver vs1 -volume vol1 -lun * -igroup ig1 -destination-aggregate aggr2
```

Add the aggregate owner node and HA partner for aggregate `aggr2` to all LUN mappings in volume `vol1` to `igroup ig1` prior to starting a volume move operation.

**lun mapping create**

Map a LUN to an initiator group

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

**Description**

This command maps a LUN to all of the initiators in an initiator group (`igroup`). After you map the LUN, the LUN is visible to all initiators in the `igroup`.

Data ONTAP ensures that there are no LUN map conflicts whether the LUN is offline or online. A LUN map conflict is a mapping that would violate either of the following rules:

- Each LUN can be mapped to an initiator only once. A LUN can be mapped to multiple `igroups` as long as each `igroup` has a distinct set of initiators.

- LUN IDs must be unique such that every initiator has a unique ID for each LUN to which it is mapped. If you map a LUN to an `igroup`, the LUN ID for that mapping cannot be reused by any of the initiators in that `igroup`.

In order to determine if a LUN ID is valid for a mapping, Data ONTAP checks each initiator in the `igroup` to make sure that the LUN ID is not used for another mapping that includes that initiator.

Prior to mapping a LUN, you must have at least one iSCSI or FCP LIF provisioned on the LUN’s owner node and high-availability partner node.

**Parameters**
-vserver <Vserver Name> - Vserver Name
  Specifies the Vserver that contains the LUN you want to map.

{ -path <path> - LUN Path
  Specifies the path of the LUN that you want to map. Examples of correct LUN paths are /vol/vol1/lun1 and /vol/vol1/qtree1/lun1.

| -volume <volume name> - Volume Name
  Specifies the volume that contains the LUN you want to map.

[-qtree <qtree name>] - Qtree Name
  Specifies the qtree that contains the LUN you want to map.

-lun <text> - LUN Name}
  Specifies the LUN name that you want to map.

-g, -igroup <text> - Igroup Name
  Specifies the igroup that you want to map.

[-lun-id <integer>] - LUN ID
  Specifies the LUN ID for the mapping. The LUN ID is specific to the mapping, not to the LUN itself. This is used by the initiators in the igroup as the Logical Unit Number for the initiator when accessing the storage.

[-additional-reporting-node <nodename>] - Additional Reporting Node (privilege: advanced)
  Specifies an additional node to populate the -reporting-nodes list when creating the LUN mapping. The specified node’s high availability partner will be automatically populated as well. Use this parameter when preferred data mobility destinations are known ahead of time and the appropriate paths can be pre-configured.

Examples

cluster1::> lun mapping create -vserver vs1 -path /vol/vol1/lun1 -igroup ig1 -lun-id 8

Maps a LUN at /vol/vol1/lun1 on Vserver vs1 to the igroup ig1 with LUN ID 8.

lun mapping delete

Unmap a LUN from an initiator group

Availability: This command is available to cluster and Vserver administrators at the admin privilege level.

Description

This command unmaps a LUN from an initiator group. After you use this command, the LUN is not visible to any of the initiators in the initiator group.
Parameters

-vserver <Vserver Name> - Vserver Name
   Selects the LUN maps for the Vserver that matches the parameter value.

{-path <path> - LUN Path
   Specifies the path of the LUN you want to unmap. Examples of correct LUN paths are /vol/vol1/lun1 and /vol/vol1/qtree1/lun1.

| -volume <volume name> - Volume Name
   Specifies the volume of the LUN you want to unmap.

-qtree <qtree name> - Qtree Name
   Specifies the qtree of the LUN you want to unmap.

-lun <text> - LUN Name
   Specifies the name of the LUN you want to unmap.

-g, -igroup <text> - Igroup Name
   Specifies the initiator group that you want to unmap the LUN from.

Examples

cluster1::> lun mapping delete -vserver vs1 -path /vol/vol1/lun1 -igroup ig1

Unmaps LUN at path /vol/vol1/lun1 from the initiator group ig1 on Vserver vs1.

lun mapping remove-reporting-nodes

Remove Reporting Nodes

Availability: This command is available to cluster and Vserver administrators at the admin privilege level.

Description

This command is used after a data mobility event to remove reporting nodes that are no longer required for optimized access from the specified LUN mapping.

For more information on managing reporting nodes in response to data mobility events, please see the Data ONTAP SAN Administration Guide.

Parameters

-vserver <Vserver Name> - Vserver Name
   Specifies the name of the Vserver containing the LUN.
{ -path <path> - LUN Path
  Specifies the path of the LUN. Examples of correct LUN paths are /vol/vol1/lun1 and /vol/vol1/qtree1/lun1.
}

| -volume <volume name> - Volume Name
  Specifies the volume that contains the LUN.

[-qtree <qtree name>] - Qtree Name
  Specifies the qtree that contains the LUN.

-lun <text> - LUN Name}
  Specifies the LUN name.

-g, -igroup <text> - Igroup Name
  Specifies the igroup the LUN is mapped to.

-remote-nodes <true> - Remove Remote Nodes for LUN Location
  If specified, remove all nodes other than the LUN's owner and HA partner from the LUN mapping’s reporting nodes.

Examples

```
cluster1::> lun mapping remove-reporting-nodes -vserver vs1 -path /vol/vol1/lun1 -igroup ig1
```

Remove excess remote nodes from the LUN mapping of /vol/vol1/lun1 to igroup ig1

**lun mapping show-initiator**

Show the LUN mappings to a specific initiator

**Availability:** This command is available to cluster and Vserver administrators at the advanced privilege level.

**Description**

The lun mapping show-initiator command lists the LUNs which are mapped to an initiator group which contains a specific initiator.

**Parameters**

{{-fields <fieldname>,...]
  If you specify the -fields <fieldname>, ... parameter, the command output also includes the specified field or fields. You can use ‘-fields ?’ to display the fields to specify.

[-instance ]}
  If you specify the -instance parameter, the command displays detailed information about all fields.
[-vserver <Vserver Name>] - Vserver Name (privilege: advanced)
Selects the LUN mappings for the vserver that you specify.

-initiator <text> - Initiator Name (privilege: advanced)
Selects the LUN mappings for the initiator that you specify.

[-lun-id <integer>] - Logical Unit Number (privilege: advanced)
Selects the LUN mappings with a LUN ID that you specify.

[-igroup <text>] - Igroup Name (privilege: advanced)
Selects the LUN mappings for the initiator group that you specify.

[-path <path>] - LUN Path (privilege: advanced)
Selects the LUN mappings for the LUN path that you specify.

[-node <nodename>] - LUN Node (privilege: advanced)
Selects the LUN mappings for the LUNs which are being hosted on the node that you specify.

[-reporting-nodes <nodename>,...] - Reporting Nodes (privilege: advanced)
Selects the LUN mappings for the LUNs which have reporting nodes that you specify.

[-vserver-uuid <UUID>] - Vserver UUID (privilege: advanced)
Selects the LUN mappings for the Vserver UUID that you specify.

[-igroup-uuid <UUID>] - Igroup UUID (privilege: advanced)
Selects the LUN mappings for the initiator group UUID that you specify.

[-lun-uuid <UUID>] - LUN UUID (privilege: advanced)
Selects the LUN mappings for the LUN UUID that you specify.

Examples
The following example displays the LUN mappings for initiator 20:10:0a:50:00:01:01:01 in Vserver vs1.
lun mapping show

Lists the mappings between LUNs and initiator groups.

Availability: This command is available to cluster and Vserver administrators at the admin privilege level.

Description

This command lists the mappings between LUNs and initiator groups.

Parameters

{-fields <fieldname>,...}

If you specify the -fields <fieldname>, ... parameter, the command output also includes the specified field or fields. You can use ‘-fields ?’ to display the fields to specify.

{-instance }

If you specify the -instance parameter, the command displays detailed information about all fields.

{-vserver <Vserver Name>} - Vserver Name

Selects the LUN maps for the Vserver that matches the parameter value.
[-path <path>] - LUN Path
Selects the LUN maps for the LUN with the path that matches the parameter value. Examples of correct
LUN paths are /vol/vol1/lun1 and /vol/vol1/qtree1/lun1.

[-volume <volume name>] - Volume Name
Selects the LUN maps for the volumes that match the parameter value.

[-qtree <qtree name>] - Qtree Name
Selects the LUN maps for the queue trees that match the parameter value.

[-lun <text>] - LUN Name
Selects the LUN maps for the LUNs with a name that matches the parameter value.

[-g, -igroup <text>] - Igroup Name
Selects the LUN maps for the igroup that matches the parameter value.

[-ostype <Initiator Group OS Type>] - Igroup OS Type
Selects the LUN maps for the initiator groups with the OS type that matches the parameter value.

[-protocol <protocol_enum>] - Igroup Protocol Type
Selects the LUN maps for initiator groups with a protocol that matches the parameter value. Possible values
include FCP, iSCSI, or mixed.

[-lun-id <integer>] - LUN ID
Selects the LUN maps with a LUN ID that matches the parameter value.

[-portset <text>] - Portset Binding Igroup
Selects the LUN maps for initiator groups bound to the portset that matches the parameter value.

[-alua {true|false}] - ALUA
Selects the LUN maps with ALUA settings that match the parameter value.

[-n, -initiators <text>,...] - Initiators
Selects the LUN maps for initiator groups containing the initiators that match the parameter value.

[-node <nodename>] - LUN Node
Selects the LUN maps for nodes that match the parameter value.

[-reporting-nodes <nodename>,...] - Reporting Nodes
Selects the LUN maps that match the parameter value.

Examples
cluster1::> lun mapping show

<table>
<thead>
<tr>
<th>Vserver</th>
<th>Path</th>
<th>Igroup</th>
<th>LUN ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>vs1</td>
<td>/vol/vol1/lun1</td>
<td>igroup1</td>
<td>10</td>
</tr>
<tr>
<td>mixed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vs1</td>
<td>/vol/vol1/lun1</td>
<td>igroup2</td>
<td>4</td>
</tr>
<tr>
<td>mixed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vs1</td>
<td>/vol/vol5/lun1</td>
<td>igroup3</td>
<td>6</td>
</tr>
<tr>
<td>mixed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vs1</td>
<td>/vol/vol5/lun2</td>
<td>igroup3</td>
<td>1</td>
</tr>
<tr>
<td>mixed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 entries were displayed.

The example above lists all of the mappings between LUNs and initiator groups and the LUN ID for each mapping.