

# Dell EMC Unity™ Family

Version 4.4

## Third-Party System Migration using SAN Copy Pull User Guide

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# CONTENTS

<b>Chapter 1</b>	<b>Introduction</b>	<b>5</b>
	About this document.....	6
	Additional resources.....	6
	About third-party system migration.....	7
<b>Chapter 2</b>	<b>Migration workflow</b>	<b>9</b>
	Configure migration.....	10
	Fibre Channel (FC) preparation.....	10
	iSCSI preparation.....	10
<b>Chapter 3</b>	<b>Considerations for migration</b>	<b>13</b>
	Migration restrictions and limitations.....	14
<b>Chapter 4</b>	<b>Configure migration using the CLI</b>	<b>15</b>
	Manage iSCSI connections.....	16
	Create an iSCSI connection.....	16
	View iSCSI connection settings.....	17
	Change iSCSI connection settings.....	17
	Delete an iSCSI connection.....	18
	Manage iSCSI connection paths.....	18
	Create an iSCSI connection path.....	19
	View iSCSI connection path settings.....	20
	Delete an iSCSI connection path.....	21
	Manage generic block resource import sessions.....	22
	Create a generic import session.....	24
	View generic import session settings.....	26
	Change generic import session settings.....	27
	Pause a generic import session.....	28
	Resume a generic import session.....	29
	Cancel a generic import session.....	30
	Restart a generic import session.....	30
	Delete a generic import session.....	31
<b>Appendix A</b>	<b>Host LUN WWNs</b>	<b>33</b>
	Retrieving Host LUN World Wide Names (WWNs).....	34

## CONTENTS

# CHAPTER 1

## Introduction

This chapter addresses the following topics:

- [About this document](#)..... 6
- [Additional resources](#)..... 6
- [About third-party system migration](#)..... 7

## About this document

This document provides information that you can use to configure and manage migrations from third-party systems to a Dell EMC Unity Family (All Flash, Hybrid, or UnityVSA) system. It includes information about the CLI commands that are associated with migration.

For more information about CLI commands, refer to the *Unisphere Command Line Interface User Guide*.

## Additional resources

As part of an improvement effort, revisions of the software and hardware are periodically released. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features. Contact your technical support professional if a product does not function properly or does not function as described in this document.

### Where to get help

Support, product, and licensing information can be obtained as follows:

#### Product information

For product and feature documentation or release notes, go to Unity Technical Documentation at: [www.emc.com/en-us/documentation/unity-family.htm](http://www.emc.com/en-us/documentation/unity-family.htm).

#### Troubleshooting

For information about products, software updates, licensing, and service, go to Online Support (registration required) at: <https://Support.EMC.com>. After logging in, locate the appropriate **Support by Product** page.

#### Technical support

For technical support and service requests, go to Online Support at: <https://Support.EMC.com>. After logging in, locate **Create a service request**. To open a service request, you must have a valid support agreement. Contact your Sales Representative for details about obtaining a valid support agreement or to answer any questions about your account.

#### Special notice conventions used in this document

##### **DANGER**

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

---

##### **WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

---

##### **CAUTION**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

---

**NOTICE**

Addresses practices not related to personal injury.

---

**Note**

Presents information that is important, but not hazard-related.

---

## About third-party system migration

The third-party system migration feature uses SAN Copy Pull to migrate block resources (such as LUNs, volumes, and virtual disks), including configuration data, from a source third-party block storage system to standalone LUNs or VMFS Datastores on a destination Dell EMC Unity storage system that is running software version 4.4 or later. Data is copied on a block-by-block basis.

Create the destination LUN slightly larger (such as 1 GB larger) than the source LUN. Do not use an existing LUN on the destination system because the migrated data will overwrite the data on the existing LUN.

The migration is a cold data operation. The I/O on the source third-party block storage system must be stopped. No changes can be applied to the source while the migration is in process. It is recommended that you plan a downtime for the source third-party block storage system to perform the migration operation.

The third-party block storage system must support either the Fibre Channel (FC) or iSCSI protocol.

The migration is always conducted from the Dell EMC Unity storage system. The destination system makes a remote call to the third-party block storage system and initiates a pull of the source storage resources to the destination system.

After the migration operation is completed, you need to configure host I/O operations on the destination system.

All managing and monitoring of the sessions will be done through the CLI. The migration commands are described in the "Configure migration using the CLI" chapter.



# CHAPTER 2

## Migration workflow

This chapter addresses the following topics:

- [Configure migration](#)..... 10
- [Fibre Channel \(FC\) preparation](#)..... 10
- [iSCSI preparation](#)..... 10

## Configure migration

You can manually import one or more block resources from a source third-party block storage system to a destination Dell EMC Unity system by using either the Fibre Channel (FC) or iSCSI protocol.

### High-level overview

Before you begin the migration process:

- Using either the FC or iSCSI protocol, set up a data path connection between the source and destination systems. Do not configure both FC and iSCSI to the same source.
- For either the FC or iSCSI protocol, both destination Unity Storage Processors (SPA and SPB) need to have access to the source storage devices, such as LUNs or volumes. This means that each destination Unity SP should be zoned or connected to ports on the source system that will provide the Unity system access to the source storage devices.
- Create LUNs or VMFS Datastores on the destination Dell EMC Unity system that is running software version 4.4 or later. Create the destination LUN slightly larger (such as 1 GB larger) than the source LUN.

---

### Note

Data cannot be migrated from the source system to a consistency group on the destination system. However, once the data has been migrated to a LUN on the destination system, the LUN can be moved into a consistency group.

- 
- Remove host access to the resource on the source system, and add the destination Dell EMC Unity system as a host to the same resource on the source system. This allows the Dell EMC Unity system to access the source resource.

After the migration operation is completed, you must configure host I/O operations on the destination LUN that resides on the destination Dell EMC Unity system.

## Fibre Channel (FC) preparation

FC connections use basic zoning between the source and destination systems, or you can directly connect them together.

---

### Note

Migration sessions cannot be created on FC ports where the Replication capability is designated as Synchronous replication.

---

Each Unity Storage Processor (SP) should be zoned or connected to all source system controllers.

Initiators will login automatically.

## iSCSI preparation

Refer to the "Configure migration using the CLI" chapter for additional details about Unisphere CLI commands referenced in this topic.

## Procedure

1. Make sure that Ethernet interface cards (NIC) are connected on both the source and destination systems on the same Ethernet network.
2. Create the block iSCSI interfaces to be used for data transfer in Unity Unisphere:
  - a. Under **Storage**, navigate to **Block > iSCSI Interfaces**.
  - b. Click **Add**.
  - c. Specify all necessary information, and click **OK**.

---

### Note

Write down the CLI ID for each interface that is created. You will need them for the next step when using the `-if` option.

---

3. Create the iSCSI connection that will be used when creating iSCSI paths between the source and destination systems:
  - a. Use the `/remote/iscsi/connection create -name <value> [-descr <value>] [-async]` to create a connection.
4. Add iSCSI paths to establish iSCSI protocol connectivity between the source controllers and each destination Unity SP:
  - a. Use the `/remote/iscsi/connection/path create {-connection <value> | -connectionName <value>} [-descr <value>] -addr <value> [-port <value>] -if <value> [-async]` command to create an iSCSI connection path.
5. Create a migration session. The migration operation requires you to know the Source system Name, the Source system LUN WWN, and the destination Unity LUN resource ID or Name.
  - a. Use the `/import/session/generic create [-name <value>] [-descr <value>] [-srcSystemName <value>] -srcLUNWWN <value> {-targetRes <value> | -targetResName <value>} [-throttle {Low | Medium | High}] [-async]` command to create a migration session.

---

### Note

By default, the throttle value assigned to the migration session is `High`. You can specify a throttle value other than `High` during the migration session creation, or modify it after the session is created.

---



# CHAPTER 3

## Considerations for migration

This chapter addresses the following topics:

- [Migration restrictions and limitations](#)..... 14

## Migration restrictions and limitations

Keep in mind the following migration restrictions and limitations:

- Remember to create the destination LUN slightly larger (such as 1 GB larger) than the source LUN. Do not use an existing LUN on the destination system. Any migrated data will overwrite the data on an existing LUN.
- Data cannot be migrated to a consistency group. However, data can be migrated to LUNs which can then be moved into a consistency group after the migration is completed.
- Migration sessions cannot be created on FC ports where the Replication capability is designated as Synchronous replication.
- Replication sessions or snapshots, snapshot schedules, or thin clones are not allowed on the destination LUN. You can configure them on the destination LUN once the migration has completed.
- Migration sessions cannot be created if host access is assigned to a destination LUN.
- Host access cannot be assigned to a destination LUN during a migration operation. Once the migration is complete, host access can be assigned.
- If the source system has an iSCSI address which contains CHAP credentials, you must remove the CHAP credentials from the iSCSI address before migration, and then restore the CHAP credentials once migration is complete.
- Source or destination LUNs cannot be present on more than one copy session.
- LUN attributes (such as LUN ownership, Data Reduction, LUN size, and so on) cannot be changed during the migration.
- LUN move sessions are not allowed during a migration operation.
- Completed and cancelled sessions are stored in a historical database, and are not deleted upon session completion and cancellation. The user must explicitly delete these sessions manually.

# CHAPTER 4

## Configure migration using the CLI

This chapter addresses the following topics:

- [Manage iSCSI connections](#)..... 16
- [Manage iSCSI connection paths](#)..... 18
- [Manage generic block resource import sessions](#).....22

## Manage iSCSI connections

Identifies iSCSI connections between destination SPs and arrays to the source system that are required to create iSCSI connection paths.

### Note

Only one iSCSI connection can be created at a time. Therefore, only one source system can be managed for one migration operation. If a migration operation is already completed, you must create a new iSCSI connection with new paths.

The following table lists the attributes for iSCSI connections.

**Table 1** iSCSI connection Attributes

Attribute	Description
ID	ID of the iSCSI connection.
Name	Name of the iSCSI connection.
Description	Description of the iSCSI connection.

## Create an iSCSI connection

Create an iSCSI connection.

### Note

Only one iSCSI connection can be created at a time. Therefore, only one source system can be managed for one migration operation. If a migration operation is already completed, you must create a new iSCSI connection with new paths.

### Format

```
/remote/iscsi/connection create -name <value> [-descr <value>]
[-async]
```

### Action qualifiers

Qualifier	Description
-name	Specifies the iSCSI connection name.
-descr	Specifies the iSCSI connection description.
-async	Run the operation in asynchronous mode.

### Example

The following command creates an iSCSI connection.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/
connection create -name myConn -descr "Connection for lun_1 importing"
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection
```

```
ID = iscsi_conn_1
Operation completed successfully.
```

## View iSCSI connection settings

View details for existing iSCSI connections.

### Format

```
/remote/iscsi/connection [{"-id <value> | -name <value>}] show
```

### Object qualifiers

Qualifier	Description
-id	Type the ID of the iSCSI connection.
-name	Type the unique name of the iSCSI connection.

### Example

This example shows all iSCSI connections.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/
connection show -detail
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:      ID              = iscsi_conn_1
        Name           = Old Array
        Description    = LUN 1 import
```

## Change iSCSI connection settings

Change the current iSCSI connection settings.

### Format

```
/remote/iscsi/connection {"-id <value> | -name <value>} set -
descr <value> [-async]
```

### Object qualifiers

Qualifier	Description
-id	Type the ID of the iSCSI connection.
-name	Type the unique name of the iSCSI connection.

### Action qualifiers

Qualifier	Description
-descr	Type the iSCSI connection description.
-async	Run the operation in asynchronous mode.

### Example

The following command changes the description for the iSCSI connection.

```
uemcli uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/connection -id iscsi_conn_1 set -descr copyconnection
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Delete an iSCSI connection

Deletes an existing iSCSI connection.

### Note

When you delete an iSCSI connection, any iSCSI connection paths associated with the iSCSI connection are also deleted.

### Format

```
/remote/iscsi/connection {-id <value> | -name <value>} delete [-async]
```

### Object qualifiers

Qualifier	Description
-id	Type the ID of the iSCSI connection you want to delete.
-name	Type the unique name of the iSCSI connection you want to delete.

### Action qualifier

Qualifier	Description
-async	Run the operation in asynchronous mode.

### Example

The following command deletes the "iscsi\_conn\_1" iSCSI connection.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/connection -id iscsi_conn_1 delete
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Manage iSCSI connection paths

The connection iSCSI path to a remote system includes IP address, TCP port, and a list of iSCSI interfaces on the storage system from which outgoing iSCSI connections are established. An iSCSI connection can have one or more iSCSI paths configured.

**Note**

If the source system has an iSCSI address which contains CHAP credentials, you must remove the CHAP credentials from the iSCSI address before migration, and then restore the CHAP credentials once migration is complete.

The following table lists the attributes for iSCSI connection paths.

**Table 2** iSCSI connection path Attributes

Attribute	Description
Index	Number of the iSCSI path within the iSCSI connection.
iSCSI connection	ID of the iSCSI connection.
iSCSI connection name	Name of the iSCSI connection.
iSCSI path description	Description of the iSCSI path.
Remote iSCSI address	IP address of the iSCSI destination on the remote system.
Remote iSCSI port	TCP port of the iSCSI destination on the remote system.
Local iSCSI interfaces	List of identifiers of the iSCSI interfaces on the local storage system.

## Create an iSCSI connection path

Creates a new iSCSI path and adds it to a specified iSCSI connection.

**Format**

```
/remote/iscsi/connection/path create {-connection <value> | -connectionName <value>} [-descr <value>] -addr <value> [-port <value>] -if <value> [-async]
```

**Action qualifiers**

Qualifier	Description
-connection	Type the ID of the iSCSI connection where you want to add a path.
-connectionName	Type the unique name of the iSCSI connection where you want to add a path.
-descr	Type the iSCSI path description.
-addr	Type the IP address of the remote system iSCSI destination.  <b>Note</b> Do not specify an iSCSI portal address which only redirects the connection to another address. Unity does not support iSCSI redirection.
-port	The default TCP port is 3260. If the port number is different from the default, type the TCP port of the remote system iSCSI destination.

Qualifier	Description
-if	Specify a comma-separated list of iSCSI interfaces on the local source system.  <b>Note</b> You can find existing iSCSI interfaces information by using the <code>/net/if show</code> command. If a system has two SPs, make sure that you specify iSCSI network interfaces for both SPs.
-async	Run the operation in asynchronous mode.

**Example**

The following command creates an iSCSI path for the "iscsi\_conn\_1" iSCSI connection.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/
connection/path create -connection iscsi_conn_1 -addr 10.0.0.4 -if
if_1,if_2
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## View iSCSI connection path settings

View details for existing iSCSI connection paths.

**Format**

```
/remote/iscsi/connection/path [{"-connection <value> | -
connectionName <value>}] show
```

**Object qualifiers**

Qualifier	Description
-connection	Type the ID of the iSCSI connection.
-connectionName	Type the unique name of the iSCSI connection.

**Example**

This example shows all iSCSI connection paths.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/
connection/path -connection iscsi_conn_1 show -detail
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:      Index                = 1
        iSCSI connection      = iscsi_conn_1
        iSCSI connection name = MyConn
        iSCSI path description = SP 2 node 1
        Remote iSCSI address  = 10.0.0.4
        Remote iSCSI port     = 3260
```

```

Local iSCSI interfaces      = IF_1,IF_2

2:  Index                   = 2
    iSCSI connection       = iscsi_conn_1
    iSCSI connection name  = MyConn
    iSCSI path description = SP 1 node 2
    Remote iSCSI address   = 10.0.0.6
    Remote iSCSI port      = 3260
    Local iSCSI interfaces = IF_1,IF_2

```

## Delete an iSCSI connection path

Deletes an existing iSCSI connection path.

### Note

When you delete an iSCSI connection, any iSCSI connection paths associated with that iSCSI connection are also deleted. You do not need to manually delete the paths.

### Format

```
/remote/iscsi/connection/path {-connection <value> | -
connectionName <value>} -index <value> delete [-async]
```

### Object qualifiers

Qualifier	Description
-connection	Type the ID of the iSCSI connection that has the path you want to delete.
-connectionName	Type the unique name of the iSCSI connection that has the path you want to delete.
-index	Type the number of the iSCSI path that you want to delete from the iSCSI connection.

### Action qualifier

Qualifier	Description
-async	Run the operation in asynchronous mode.

### Example

The following command deletes the "1" path from the "iscsi\_conn\_1" iSCSI connection.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /remote/iscsi/
connection/path -connection iscsi_conn_1 -index 1 delete
```

```

Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.

```

## Manage generic block resource import sessions

This command imports generic block resources (such as LUNS, volumes, or virtual disks) from a third-party block storage system which provides a Fibre Channel (FC) or iSCSI interface to its block devices (LUNs). It uses the SAN Copy Pull feature running on the local storage system.

If the iSCSI protocol is used, iSCSI connections and connection paths must have been created and configured before you can manage generic import sessions. Refer to the "Manage iSCSI connections" and "Manage iSCSI connection paths" sections in this chapter for more information about configuring iSCSI connections and connection paths.

The following table lists the attributes for import sessions:

**Table 3** Import session attributes

Attribute	Description
ID	ID of the import session.
Name	Name of the import session.
Description	Description of the import session.
Health state	<p>Health state of the import session. Valid values are:</p> <ul style="list-style-type: none"> <li>• <code>Unknown (0)</code> — The remote system health cannot be determined.</li> <li>• <code>OK (5)</code> — Session is in one of the following states: <ul style="list-style-type: none"> <li>▪ Session is operating normally.</li> <li>▪ Session is completed.</li> <li>▪ Session is cancelled.</li> </ul> </li> <li>• <code>OK_BUT (7)</code> — Session is in one of the following states: <ul style="list-style-type: none"> <li>▪ Session was recovered on SP reboot.</li> <li>▪ Session is queued.</li> <li>▪ Session is paused.</li> </ul> </li> <li>• <code>Degraded/Warning (10)</code> — Session is in one of the following states: <ul style="list-style-type: none"> <li>▪ Auto-recovery is in progress.</li> <li>▪ Recovery on SP reboot.</li> <li>▪ Waiting on LUN trespass.</li> </ul> </li> <li>• <code>Minor failure (15)</code> — The session failed either because an SP is down or the session was aborted.</li> <li>• <code>Major failure</code> — The session failed for one of the following reasons: <ul style="list-style-type: none"> <li>▪ A bad block was encountered on the source block resource.</li> <li>▪ A restart on auto recovery failed.</li> <li>▪ The session was halted on an SP reboot.</li> <li>▪ The destination LUN and the import session are on different SPs.</li> </ul> </li> </ul>

**Table 3** Import session attributes (continued)

Attribute	Description
	<ul style="list-style-type: none"> <li>▪ The destination LUN has been trespassed.</li> <li>• <code>Critical failure</code> — The session failed for one of the following reasons: <ul style="list-style-type: none"> <li>▪ Either the source block resource or destination LUN was not found.</li> <li>▪ Either the source block resource or destination LUN is inaccessible.</li> <li>▪ The source block resource has an invalid connection type.</li> <li>▪ The source block resource failed.</li> <li>▪ The destination LUN is inconsistent.</li> </ul> </li> <li>• <code>Non-recoverable failure (30)</code> — A non-recoverable error caused the session to fail.</li> </ul>
Health details	Additional health information. See Appendix A, Reference, for details.
State	<p>State of the import session. Valid values are:</p> <ul style="list-style-type: none"> <li>• <code>Initialized</code></li> <li>• <code>Pending</code></li> <li>• <code>Running</code></li> <li>• <code>Paused</code></li> <li>• <code>Failed</code></li> <li>• <code>Completed</code></li> <li>• <code>Cancelled</code></li> </ul>
SP owner	<p>Default destination LUN SP owner. Valid values are:</p> <ul style="list-style-type: none"> <li>• <code>SPA</code></li> <li>• <code>SPB</code></li> </ul>
Source system name	Remote system name provided by the user when the session was created.
Source LUN WWN	<p>Source block resource World Wide Name (WWN). The WWN can be passed with the following four prefixes:</p> <ul style="list-style-type: none"> <li>• <code>wwn.</code></li> <li>• <code>nna.</code></li> <li>• <code>wwn-0x.</code></li> <li>• <code>0x.</code></li> </ul> <p>It is possible to pass the WWN without any prefixes. For example, the following notations of WWN can be used:</p> <ul style="list-style-type: none"> <li>• <code>50060485c5edaa5d</code>—16 hexadecimal chars</li> <li>• <code>50:06:04:85:c5:ed:aa:5d</code>—Bytes separated by colons</li> </ul>

**Table 3** Import session attributes (continued)

Attribute	Description
	<ul style="list-style-type: none"> <li>50:6:4:85:c5:ed:aa:5d—Leading nibble of the byte dropped if the nibble is zero</li> <li>50-06-04-85-c5-ed-aa-5d—Bytes separated by dashes</li> </ul> <hr/> <p><b>Note</b></p> <p>If the system rejects the WWN as non-recognizable, you can convert the WWN manually to the Dell EMC Unity system form, such as 60:00:01:6F..</p>
Target resource	CLI ID of the destination storage resource.
Target resource name	Name of the destination storage resource.
Target resource type	Type of the destination resource. Valid values are: <ul style="list-style-type: none"> <li>LUN</li> <li>VMware VMFS</li> </ul>
Size of source	Size of data to transfer from the source block resource to the destination LUN.
Size copied	Total bytes transferred from the source block resource to the destination LUN.
Size remaining	Current remaining size in bytes to be transferred from the source block resource to the destination LUN.
Percent completed	Percentage of bytes transferred from the source block resource to the destination LUN.
Start time	Start time of the copying process.
Estimated time to complete	Current estimated time to complete the copying of the source block resource to the destination LUN.
Throttle	Reduces CPU load and I/O latency on the destination system. The lower the throttle value, the less impact on the host latency and the longer the import will take. Valid values are: <ul style="list-style-type: none"> <li>Low</li> <li>Medium</li> <li>High (default)</li> </ul>

## Create a generic import session

Create an import session for third-party systems.

### Format

```
/import/session/generic create [-name <value>] [-descr <value>]
[-srcSystemName <value>] -srcLUNWWN <value> {-targetRes <value>
```

```
| -targetResName <value>} [-throttle {Low | Medium | High}] [-async]
```

### Action qualifiers

Qualifier	Description
-name	Identifies the import session by unique name. If this name is not specified, it will be generated, using the pattern: <target LUN CLI ID>-<target LUN name>-<timestamp>. For example, the name might be generated as sv_1-LUN01-20180601T160654.
-descr	Specifies the import session description.
-srcSystemName	Remote third-party system name. If this name is not specified, the option is left empty and the session cannot be tracked by the remote system name.
-srcLUNWWN	<p>Specifies the WWN of the source LUN. The WWN can be passed with the following four prefixes:</p> <ul style="list-style-type: none"> <li>• wwn.</li> <li>• nna.</li> <li>• wwn-0x.</li> <li>• 0x.</li> </ul> <p>It is possible to pass the WWN without any prefixes. For example, the following notations of WWN can be used:</p> <ul style="list-style-type: none"> <li>• 50060485c5edaa5d—16 hexadecimal chars</li> <li>• 50:06:04:85:c5:ed:aa:5d—Bytes separated by colons</li> <li>• 50:6:4:85:c5:ed:aa:5d—Leading nibble of the byte dropped if the nibble is zero</li> <li>• 50-06-04-85-c5-ed-aa-5d—Bytes separated by dashes</li> </ul> <hr/> <p><b>Note</b></p> <p>If the system rejects the WWN as non-recognizable, you can convert the WWN manually to the Dell EMC Unity system form, such as 60:00:01:6F..</p> <hr/>
-targetRes	CLI ID of the destination storage resource.
-targetResName	Name of the destination storage resource.
-throttle	<p>Specifies the import session throttle value. Valid values are:</p> <ul style="list-style-type: none"> <li>• Low</li> <li>• Medium</li> <li>• High (default)</li> </ul>

Qualifier	Description
	<p><b>Note</b></p> <p>You can change the Throttle setting when a session is running or paused. Only the <code>/import/session/generic show -detail</code> CLI command output will reflect this change when the session is running. However, after the session is completed, that command's output reflects the Throttle value that was set when the session was created, and not the changed value.</p>
<code>-async</code>	Run the operation in asynchronous mode.

### Example

The following command creates an import session.

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/generic create -name lun_17_import -srcSystemName MyOldGranSystem -srcLUNWWN 06:00:00:00:05:00:00:00:01:00:00:00:00:00:00:03 -targetRes sv_1 -throttle High
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection
```

```
ID = glimp_1
Operation completed successfully.
```

## View generic import session settings

View details about existing import sessions for third-party systems.

### Format

```
/import/session/generic [{-id <value> | -name <value> | -srcSystemName <value> | -active | -running | -paused | -failed | -pending | -completed | -cancelled}] show
```

### Object qualifiers

Qualifier	Description
<code>-id</code>	Type the ID of the import session.
<code>-name</code>	Type the unique name for the import session.
<code>-srcSystemName</code>	Third-party system name provided by the user at import session creation.
<code>-active</code>	Show only active sessions (sessions that are running, paused, failed, or pending).
<code>-running</code>	Show only running sessions.
<code>-paused</code>	Show only paused sessions.
<code>-failed</code>	Show only failed sessions.
<code>-pending</code>	Show only pending sessions.

Qualifier	Description
-completed	Show only completed sessions.
-cancelled	Show only cancelled sessions.

### Example

The following command displays all import sessions on the system:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/
generic show -detail
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

1:   ID           = gen_import_1
     Name        = Session_for1527875375
     Description =
     Health state = OK (5)
     Health details = "The generic LUN import session
is running normally."
     State       = Running
     SP owner    = SPB
     Trespassed  = no
     Source system name =
     Source LUN WWN = 60:06:01:60:0B:10:3D:
00:80:84:11:5B:3A:20:8E:6A
     Target resource = sv_23
     Target resource name =
destLun_Compression_Disabled_TLU_1_Standalone
     Target resource type = LUN
     Size of source = 21474836480 (20.0G)
     Size copied = 408944640 (390.0M)
     Size remaining = 21065891840 (19.6G)
     Percent completed = 1%
     Start time = 2018-06-01 17:50:03
     Estimated time to complete = 2018-06-02 01:32:58
     Throttle = Low

2:   ID           = gen_import_2
     Name        = Session_for1527875405
     Description =
     Health state = OK (5)
     Health details = "The generic LUN import session
is running normally."
     State       = Running
     SP owner    = SPA
     Trespassed  = no
     Source system name =
     Source LUN WWN = 60:06:01:60:0B:10:3D:00:8A:
84:11:5B:55:AD:35:5D
     Target resource = sv_24
     Target resource name = destLun_DLU_1_Ds
     Target resource type = VMware VMFS
     Size of source = 21474836480 (20.0G)
     Size copied = 81264640 (77.5M)
     Size remaining = 21393571840 (19.9G)
     Percent completed = 0%
     Start time = 2018-06-01 17:50:39
     Estimated time to complete = 2018-06-01 19:14:35
     Throttle = Low
```

## Change generic import session settings

Changes the existing import sessions settings for third-party systems.

### Format

```
/import/session/generic {-id <value> | -name <value>} set [-newName <value>] [-descr <value>] [-srcSystemName <value>] [-throttle <value>] [-async]
```

### Object qualifiers

Qualifier	Description
-id	Type the ID of the import session.
-name	Type the unique name for the import session.

### Action qualifiers

Qualifier	Description
-newName	Specifies the new name of the import session.
-descr	Specifies the import session description.
-srcSystemName	Remote third-party system name. If this name is not specified, the option is left empty and the session cannot be tracked by the remote system name.
-throttle	<p>Specifies the import session throttle value. Valid values are:</p> <ul style="list-style-type: none"> <li>• Low</li> <li>• Medium</li> <li>• High</li> </ul> <hr/> <p><b>Note</b></p> <p>You can change the Throttle setting when a session is running or paused. Only the <code>/import/session/generic show -detail CLI</code> command output will reflect this change when the session is running. However, after the session is completed, that command's output reflects the Throttle value that was set when the session was created, and not the changed value.</p> <hr/>
-async	Run the operation in asynchronous mode.

### Example

The following command changes the import session settings for name to newName:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/generic -id gen_import_1 set -name newName
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Pause a generic import session

Pauses a running third-party system import session.

**Format**

```
/import/session/generic {-id <value> | -name <value>} pause [-async]
```

**Object qualifiers**

Qualifier	Description
-id	Type the ID of the import session.
-name	Type the unique name for the import session.

**Action qualifier**

Qualifier	Description
-async	Run the operation in asynchronous mode.

**Example**

The following command pauses the "gen\_import\_1" import session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/generic -id gen_import_1 pause
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Resume a generic import session

Resumes running a third-party system import session.

**Format**

```
/import/session/generic {-id <value> | -name <value>} resume [-async]
```

**Object qualifiers**

Qualifier	Description
-id	Type the ID of the import session.
-name	Type the unique name for the import session.

**Action qualifier**

Qualifier	Description
-async	Run the operation in asynchronous mode.

**Example**

The following command resumes the "gen\_import\_1" import session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/
generic -id gen_import_1 resume
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Cancel a generic import session

Cancels an existing active or failed third-party system import session.

### Note

Once an import session has been cancelled, it cannot be restarted.

### Format

```
/import/session/generic {-id <value> | -name <value>} cancel [-
async]
```

### Object qualifiers

Qualifier	Description
-id	Type the ID of the import session.
-name	Type the unique name for the import session.

### Action qualifier

Qualifier	Description
-async	Run the operation in asynchronous mode.

### Example

The following command cancels the "gen\_import\_1" import session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/
generic -id gen_import_1 cancel
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

## Restart a generic import session

Restarts a failed third-party system import session, once the cause of the failure has been fixed. The session restarts and copies data from the last block address saved in a checkpoint. However, if the Throttle value was changed while the session was running, the Throttle value that was set when the initial session was created is used, and not the changed value.

### Format

```
/import/session/generic {-id <value> | -name <value>} restart
[-async]
```

**Object qualifiers**

Qualifier	Description
-id	Type the ID of the import session.
-name	Type the unique name for the import session.

**Action qualifier**

Qualifier	Description
-async	Run the operation in asynchronous mode.

**Example**

The following command restarts the "gen\_import\_1" import session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/
generic -id gen_import_1 restart
```

```
Storage system address: 10.0.0.1
Storage system port: 443
HTTPS connection

Operation completed successfully.
```

**Delete a generic import session**

Deletes a specified cancelled or completed third-party system import session. The delete operation erases all historical data for the specified import session.

**Format**

```
/import/session/generic {-id <value> | -name <value>} delete [-
async]
```

**Object qualifiers**

Qualifier	Description
-id	Type the ID of the import session.
-name	Type the unique name for the import session.

**Action qualifier**

Qualifier	Description
-async	Run the operation in asynchronous mode.

**Example**

The following command deletes the "gen\_import\_1" import session:

```
uemcli -d 10.0.0.1 -u Local/joe -p MyPassword456! /import/session/
generic -id gen_import_1 delete
```

```
Storage system address: 10.0.0.1
Storage system port: 443
```

## Configure migration using the CLI

```
HTTPS connection
```

```
Operation completed successfully.
```

# APPENDIX A

## Host LUN WWNs

This appendix addresses the following topics:

- [Retrieving Host LUN World Wide Names \(WWNs\)](#)..... 34

## Retrieving Host LUN World Wide Names (WWNs)

If a third-party system does not expose host LUN WWNs through either a UI or CLI, you need to be able to retrieve the information for use during the migration process.

This section contains examples for how to find source LUN WWN information. There may be other ways of finding the information not documented in this guide.

### Windows environment example

For some Windows environments, you could use Windows PowerShell to retrieve the WWN.

---

#### Note

The Windows PowerShell `get-disk` command is not available in all Windows systems, such as for systems earlier than 2012.

---

For example:

```
PS C:\> get-disk -number 2 | select uniqueid

uniqueid
-----
6006016016504100C91E025B7C58F68B
```

### Linux environment example

For Linux environments, there are packages available that contain commands for finding LUN WWN information. The example that follows describes an open source package that can be used to send commands to a third-party system.

1. To use the example open source package described in this procedure, you will need a Linux system (independent of the Unity system that is being migrated to) that is in the same Ethernet network as the source third-party system.
2. On the Linux system, install `open-iscsi` either using a package manager, or from <https://github.com/open-iscsi/open-iscsi>.
3. Build and install `sg_utils` to send SCSI commands to the device. [https://github.com/hreinecke/sg3\\_utils](https://github.com/hreinecke/sg3_utils)
4. Run the `open-iscsi` daemon.
 

```
$sudo /sbin/iscsid force-start &
```
5. To configure the Linux system as a host on the storage array, you need the iSCSI IQN which is found at:

```
sudo cat /etc/iscsi/initiatorname.iscsi
##
## /etc/iscsi/iscsi.initiatorname
##
## Default iSCSI Initiatorname.
##
## DO NOT EDIT OR REMOVE THIS FILE!
## If you remove this file, the iSCSI daemon will not start.
## If you change the InitiatorName, existing access control
lists
## may reject this initiator. The InitiatorName must be unique
## for each iSCSI initiator. Do NOT duplicate iSCSI
```

```
InitiatorNames.
InitiatorName=<initiator_name>
```

**6. Discover iSCSI targets by using an IP address:**

```
$sudo /sbin/iscsiadm -m discovery -t st -p <IP of iSCSI interface>
```

**7. Log in to iSCSI targets, and also mount LUNs to which the Linux host has access.**

```
$sudo /sbin/iscsiadm -m node --login
```

**8. Display the mount LUNs.**

```
>ls /dev/sd*
/dev/sda /dev/sda1 /dev/sdb /dev/sdb1 /dev/sdc /dev/sdd
```

**9. Run the `sg3_utils` command to get device information.**

```
$ sudo sg_vpd -p di /dev/sdc

Device Identification VPD page:
Addressed logical unit:
  designator type: NAA, code set: Binary
  0x6006016005603c0034fe065b271f46de
  designator type: vendor specific [0x0], code set: Binary
  vendor specific:
00 00 00 00 00 00 00 00 00 00 15 00 00 00 00 00
00 .....
Target port:
  designator type: Relative target port, code set: Binary
  Relative target port: 0x3
  designator type: Target port group, code set: Binary
  Target port group: 0x2
```

