A large, intricate red scribble graphic on the left side of the page, consisting of many overlapping, curved lines that converge towards the right. A thin red horizontal line extends from the right edge of this scribble across the page.

# NetBackup Media Server Migration Guide

Source media server:

HP-UX or AIX

Target media server:

NetBackup Appliance, RHEL,

SUSE, Solaris (SPARC),

Solaris\_x86

Supported NetBackup versions:

7.7 to 8.1.1



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# Document Control

## Revision History

Version	Date	Changes
1.0	September-2018	First release

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# 1. Introduction

Veritas wants to make you aware of End of Life (EOL) for NetBackup master and media servers that run on both HP-UX and AIX platforms. This EOL does not apply to client support for either platform. Starting with version 8.1.2, NetBackup no longer supports HP-UX and AIX platforms for master and media servers. You must migrate from HP-UX or AIX platform to a NetBackup Appliance or a supported version of either a Linux or Solaris platform before you attempt to upgrade NetBackup to the targeted release.

Veritas has made this change to better align with your current and future platform needs. This change increases our speed to delivery while we maintain our high-quality standards of the product, and decrease risks associated with potential security concerns.

Veritas has released this guide to assist you to migrate a media server from HP-UX or AIX platforms to a supported platform.

To migrate a master server from these platforms to a supported platform, see the [NetBackup Master Server Migration Guide](#).

You can also request a cost quote from Veritas Consulting services to perform the migration for you. You can also request a cost quote from Veritas Consulting services to perform the migration for you.

NetBackup 8.1.1 and previous versions continue to support both platforms and follow the published End of Support for Prior NetBackup Versions guidelines.

This guide describes how to migrate NetBackup media servers. The media servers running on HP-UX and AIX platforms must be migrated to a NetBackup Appliance or a supported version of either a Linux or Solaris platform and running on the same NetBackup version.

While this guide tries to be as accurate as possible, you may encounter situations that this guide does not cover. You may also discover new or different approaches that are not described.

When you use this guide, please bear in mind the following points:

- This guide is not definitive. If you encounter any issue contact Veritas support team at support.veritas.com.
- This guide references tech notes, NetBackup guides, or any new notes that may have replaced them. Read this information to know the implications.

## 1.1 Intended audience

This guide is intended to provide information to NetBackup administrators.

Before you start the migration, ensure to read all sections of the guide to familiarize yourself with the techniques available, rules to be followed, and limitations that are associated with these activities.

## 1.2 NetBackup version support

This guide covers NetBackup versions 7.7 to 8.1.1 and Appliance 2.7.X to 3.1.1.

## 1.3 Glossary of terms

The following terms are used throughout this guide:

- Catalog - Refers to the complete set of NetBackup databases, configuration files, and flat files.
- Proxy MSDP media server - Refers to a NetBackup MSDP media server that temporarily holds the previously backed-up images on the source media server during the media server migration. The proxy MSDP media server must be hosted on any supported NetBackup platforms except Windows.
- Restore media server - Refers to an existing HP-UX or AIX NetBackup media server that is used to restore the previously backed up images.
- Source media server - Refers to the NetBackup media server that is hosted on an HP-UX or AIX platform and that needs to be migrated.
- Source MSDP media server - Refers to the existing AIX or HP-UX MSDP configured on media server (including master server that is configured as an MSDP media server).
- Target media server - Refers to the NetBackup media server that is hosted on NetBackup Appliance or any supported version of either a Linux or Solaris platform. The target NetBackup media server hosts the migrated contents.
- Target MSDP media server - Refers to the NetBackup MSDP media server that uses same hostname as source MSDP media server. It can also be a NetBackup Appliance (including master server) that uses same hostname as source MSDP media server.
- Source master server - Refers to the NetBackup master server that is hosted on an HP-UX or AIX platform and that needs to be migrated.
- Target master server - Refers to the NetBackup master server that is hosted on NetBackup Appliance or any supported version of either a Linux or Solaris platform. The target NetBackup master server hosts the migrated contents.
- Standalone media server - Refers to the NetBackup media server that is not configured as NetBackup master server.

## 2. About the NetBackup media server migration

NetBackup media server migration is a manual process. You migrate NetBackup media server running on HP-UX or AIX platforms to a NetBackup Appliance or to a supported version of either a Linux or Solaris platform. Both source NetBackup media server version and target NetBackup media server version must be same.

### 2.1 Disclaimers and Notes

- Downtime that is required to migrate the media server depends on the number of storage devices that are configured for the media server and data to be migrated.
- You must have a back out plan prepared. See section [Back-out plan](#) for details.
- You must have your own change controls and change management to ensure sufficient downtime.
- This guide does not cover Media Server Encryption Option (MSEO) migration.

### 2.2 Prerequisites

- Source NetBackup media server platform must be HP-UX or AIX.
- Target platform can be NetBackup Appliance or all other platforms that are supported by NetBackup media server except Windows.  
See NetBackup Software Compatibility List for NetBackup and OS compatibility details.
- This guide describes the migration of NetBackup media server versions 7.7 and later (8.1.1).
- You cannot migrate cloud configurations to a Solaris\_x86 target media server or target master server.
- Source and target media server name must be same except when you are planning to use an existing media server as a restore media server.
- Source and target media server name must have same format or type FQDN or short name. If NetBackup source server name is set to FQDN, target media server name must also be set to FQDN. See section [Setting up the target media server](#) for details of changing target media server hostname to same as source media server.
- All the licenses present on source must be present at target media server as well.
- NetBackup source and target media server must have same NetBackup version installed.
- Target media server must have same or higher hardware configuration. For example, memory, processors, disk space, partitions, network cards, SCSI cards, HBA cards, and so on.
- Veritas recommends to set high logging level for NetBackup media server on both source and target. This setting helps to get detailed logs and for quick troubleshooting of failures if any.  
See *NetBackup Logging Reference Guide* to increase logging level of NetBackup.  
**Note:** Ensure to reset the verbose logging level after successful migration on target media server.

- If NBAC is configured on source media server, ensure NBAC is also configured with the same settings on the target media server. Also, ensure there is connectivity between master and target media server.

See the *NetBackup Security and Encryption Guide*.

## 2.3 Overview of the migration process

As a part of migration process, you need to perform following steps:

1. Pre-migration activities include check connectivity with master server, identify disk mount point, and so on. See section [Pre-migration tasks](#) for details.
2. Migration activities include BasicDisk and AdvancedDisk migration, storage migration and so on. See section [Starting the media server migration](#).
3. Post-migration activities include checking connectivity with master server, identifying disk mount point, and so on. See section [Post-migration tasks](#) for details.

## 2.4 Planning the media server migration

Identifying all the NetBackup media servers running on AIX or HP-UX platform in the NetBackup environment. Also, identify if your NetBackup master server running on AIX or HP-UX platform has any storage devices that are configured or attached to it.

Ensure to review all the migration plans and scenarios that are listed in this guide before you start with the migration.

Veritas recommends that you do not delete the backed-up images that are stored on the source media server for a few months (at least 6 months) after successful migration even if target media server works as expected.

These plans and strategies are not definitive. If you have a NetBackup environment, other than the following, you may use the following plans as guidelines to plan your migration.

Downtime considerations:

- For all the storage device types except MSDP:  
Downtime starts when you deactivate the source media server. The downtime continues until after post-migration tasks.
- For MSDP migration:  
MSDP migration is a two-step process. The process involves optimized duplication of images from source MSDP server to target MSDP server using a proxy MSDP server. This operation does not require downtime.

### 2.4.1 Planning to migrate standalone media server

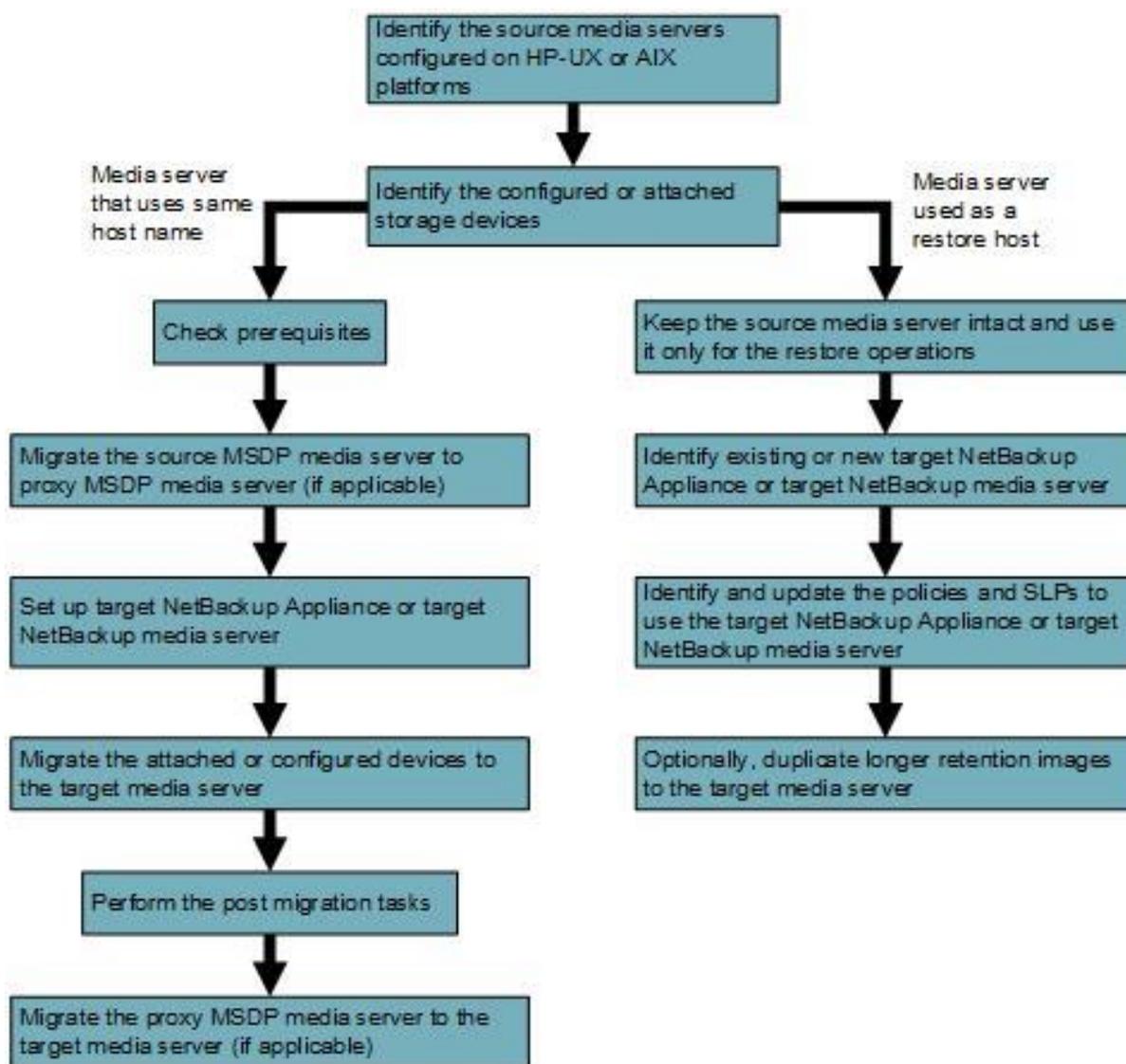
**Note:** This section does not apply to master used as a media server. For a master server that is used as a media server, see section [Planning to migrate master server used as media server](#).

Migrate one media server at a time. Identify all the storage devices that are configured or attached to the media server. A media server can have many storage devices that are

configured or attached to it. Review the migration approaches available for all the storage devices that are configured or attached and plan the migration accordingly. See [Starting the media server migration](#).

**Note:** It is possible that more than one storage devices are attached or configured to the media server. Identify all the devices and review the migration process for each storage device. Migration process for each device involves setting up the target media server. You must set up the target media server only once. Complete the migration of all the configured or attached devices one by one till the point you are asked to activate the target media server. Activate the target media server only once and complete the remaining steps for each configured or attached device. Also, post-migration tasks must be performed only once.

The following diagram describes the high level steps involved when you migrate the master server used as a media server. For details, see the relevant sections in this guide.



Consider the following approaches before starting the migration process:

- If the media server has a single storage device that is configured or attached, see [Starting the media server migration](#).
- If the media server has MSDP and BasicDisk or AdvancedDisk configured, consider one of the following:
  1. Use an existing (HP-UX or AIX) NetBackup media server as a restore media server. See [Using existing \(HP-UX or AIX\) NetBackup BasicDisk or AdvancedDisk media server as a restore media server](#) or [Using existing \(HP-UX or AIX\) NetBackup MSDP media server as a restore media server](#).
  2. Migrate MSDP and BasicDisk or AdvancedDisk to another media server that uses same host name.
    - a. Migrate MSDP media server to proxy MSDP media server. See [Migrating MSDP data from source MSDP media server to proxy MSDP media server](#).
    - b. Set up the target media server. See [Setting up the target media server](#).
    - c. Migrate the BasicDisk or AdvancedDisk. See [Migrating BasicDisk or AdvancedDisk to another media server that has same host name](#).
    - d. Migrate MSDP data from proxy MSDP server to target MSDP media server. See [Migrating MSDP data from proxy MSDP media server to target MSDP media server that uses same host name as source](#).
- If the media server has storage devices like tape device or cloud storage configured, and optionally MSDP, BasicDisk, or AdvancedDisk configured, migrate all the storage devices to another media server that uses same host name.
  1. If MSDP is configured, migrate MSDP media server to proxy MSDP media server. See [Migrating MSDP data from source MSDP media server to proxy MSDP media server](#).
  2. Set up the target media server. See [Setting up the target media server](#).
  3. If BasicDisk or AdvancedDisk is configured, migrate the BasicDisk or AdvancedDisk. See [Migrating BasicDisk or AdvancedDisk to another media server that has same host name](#).
  4. Migrate all other devices like tape device and cloud storage. See [Starting the media server migration](#).
  5. If MSDP is configured, migrate proxy MSDP media server to target MSDP media server. See [Migrating MSDP data from proxy MSDP media server to target MSDP media server that uses same host name as source](#).

#### 2.4.2 Planning to migrate master server used as media server

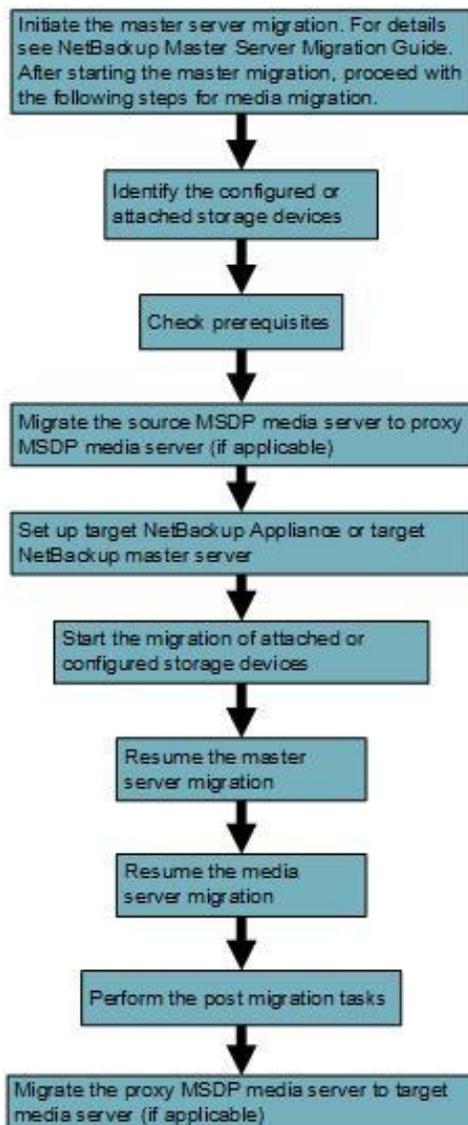
This section is applicable if your master server is running on AIX or HP-UX platform and have storage devices configured or attached to it.

Identify all the storage devices that are configured or attached to master server. Review the migration approaches available for all the storage devices that are configured or attached and plan the migration accordingly.

**Note:**

- A master server can have more than one storage devices are attached or configured to it. Identify all the devices and review the migration process for each storage device. Migration process for each device involves setting up a target master server and migrating the master server. You must set up and migrate to the target master server only once. Complete the migration for all the configured or attached devices one by one till the point you are asked to migrate the master server. Migrate the master server only once and complete the remaining steps for each configured or attached device. Also, post migration tasks must be performed only once on the target master server.
- After you start the master server migration, you must pause it in between to start the media server migration. After a point, you will have to pause the media server migration to resume the master server migration and then resume the media server migration.

The following diagram describes the high level steps involved when you migrate the master server used as a media server. For details, see the relevant sections in this guide.



Complete the following:

1. If MSDP is configured, migrate MSDP media server to proxy MSDP media server. See [Migrating MSDP data from source MSDP media server to proxy MSDP media server](#).
2. Set up the target master server. See [NetBackup Master Server Migration Guide](#).
3. If BasicDisk or AdvancedDisk is configured, migrate the BasicDisk or AdvancedDisk. See [Migrating BasicDisk or AdvancedDisk if it is configured on master server](#).
4. If tape device is configured, migrate the tape device. See [Migrating robots and tape drives configured on master server](#).
5. If cloud storage or other OST devices are configured, migrate the cloud and other storage devices. See [Migrating cloud storage or other OST devices configured on master server](#).
6. Migrate the master server. See [NetBackup Master Server Migration Guide](#).
7. Perform the post migration steps.
8. If MSDP is configured, migrate MSDP data from proxy MSDP server to target MSDP media server. See [Migrating MSDP data from proxy MSDP media server to target MSDP media server that uses same host name as source](#).

## 2.5 Pre-migration tasks

NetBackup media server migration requires following steps to be performed before you start the migration:

1. Identify all NetBackup media servers that are configured on AIX and HP-UX platforms. Only these media servers should be migrated to a supported version of NetBackup Appliance or either a Linux or Solaris platform.
2. If you have configured any storage devices such as BasicDisk or AdvancedDisk, MSDP, tape libraries, OST, on master server, ensure that you migrate the master server after you migrate the media server. See [NetBackup Master Server Migration Guide](#).
3. Run the following commands on media server to check connectivity with NetBackup master server:
  - For UNIX:
    - o `/usr/opensv/netbackup/bin/admincmd/nbemcmd -getemmserver`
    - o `/usr/opensv/netbackup/bin/admincmd/bptestbpcd -host <media_server_name>`
  - For Windows:
    - o `<install path>\VERITAS\NetBackup\bin\admincmd\nbemcmd -getemmserver`
    - o `<install path>\VERITAS\NetBackup\bin\admincmd\bptestbpcd -host <media_server_name>`
4. Validate backup or restore on source media server for required storage devices is successful.

5. Note down the details for all storage devices configured for the media server. You need this information later. Run the following commands on the master server:

- a. Run the following command to list all configured storage servers:

```
nbdevquery -liststs -U
```

The `nbdevquery` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd`

Note the state and other details of each storage server.

- b. Run the following command to identify the disk mount points for the disk pools. Ensure that all mount points are available on the target computer.

```
nbdevquery -listmounts
```

```
nbdevquery -listmounts -stype BasicDisk
```

The `nbdevquery` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd`

For more details on mount points, run the `mount` command

- c. Run the following command to check all the drive names, drive paths, and robotic library

```
tpconfig -d
```

The `tpconfig` command is located at:

- For UNIX: `/usr/opensv/volmgr/bin`
- For Windows: `<install_path>\Volmgr\bin\`

- d. Run the following command to list all the media that is configured for a specified robot:

```
vmquery -rn <robot number>
```

The `vmquery` command is located at:

- For UNIX: `/usr/opensv/volmgr/bin`
- For Windows: `<install_path>\Volmgr\bin\`

## 2.5.1 Setting up the target media server

You must identify a NetBackup Appliance or a NetBackup target media server. The following sections describe the procedure to configure the NetBackup Appliance or the target media server.

### 2.5.1.1 Configuring a NetBackup Appliance as a target media server

NetBackup Appliances integrate multiple components into a single device, streamlining management, operation, and support, saving you money and critical IT resources. Tight

integration with NetBackup software gives you a way to cut costs and remove complexity across the entire organization.

- Save time and money versus building your own media server
- Easily scale capacity and performance as your organization grows
- Quickly deploy new data protection capabilities

You can configure a target media server on an existing NetBackup Appliance or a new NetBackup appliance as follows:

- [Configuring a target media server on an existing NetBackup Appliance](#)
- [Configuring a target media server on a new NetBackup Appliance](#)

### A. Configuring a target media server on an existing NetBackup Appliance

1. On the Appliance console, select `Main_Menu > Support > FactoryReset`.  
**Warning:** Factory Reset deletes all existing data.
2. Restart the NetBackup Appliance after factory reset.
3. Login to Appliance console.
4. Enter `Main_Menu > Network` and configure the following:
  - a. Configure `<IP address of target host> <subnet mask> <Gateway> eth1`
  - b. DNS Add Nameserver `<DNS server IP address>`
  - c. DNS Add SearchDomain `<DNS server name>`
5. To add a license, select `Main_Menu > Manage > License > Add`.
6. To set the time zone, do the following:
  - a. Enter `Main_Menu > Network > TimeZone set`.
  - b. Enter `Main_Menu > Network > Date set`.
7. Add the target's host IP address and source media server's host name in `/etc/hosts`.
8. On the Appliance console (`Main_Menu > Network`) and configure the following:
  - a. `Hosts Add <IP address FQDN-hostname short-hostname>`
  - b. `Hosts Show`
  - c. `Hosts Add <IP-address FQDN-Source-name Short-Source-name>`
9. Verify the changes are successfully applied.
  - a. Enter `Main_Menu > Network > Hosts Show`.
  - b. Enter `Main_Menu > Network > Hostname Set <FQDN hostname as per source>`.
  - c. Enter `Main_Menu > Support > Reboot`.
10. To configure the NetBackup Appliance as a media server:
  - a. Login to the NetBackup Appliance console (`Main_Menu > Appliance`).
  - b. Run the media commands.
  - c. Enter the required parameters.

### B. Configuring a target media server on a new NetBackup Appliance

1. Install the NetBackup Appliance console as follows:

- a. On the NetBackup Appliance console, select `Main_Menu > Network`.
  - b. Configure `<IP address of target host> <subnet mask> <Gateway> eth1`
  - c. `DNS Add Nameserver <DNS Server IP address>`
  - d. `DNS Add SearchDomain <DNS server name>`
2. To add a license, select `Main_Menu > Manage > License > Add`.
  3. To set the time zone, do the following:
    - a. Enter `Main_Menu > Network > TimeZone set`.
    - b. Enter `Main_Menu > Network > Date set`.
  4. Add the target's host IP address and source media server's host name in `/etc/hosts`.
  5. On the Appliance console (`Main_Menu > Network`) and configure the following:
    - a. `Hosts Add <IP address FQDN-hostname short-hostname>`
    - b. `Hosts Show`
    - c. `Hosts Add <IP-address FQDN-Source-name Short-Source-name >`
  6. Verify the changes are successfully applied.
    - a. Enter `Main_Menu > Network > Hosts Show`.
    - b. Enter `Main_Menu > Network > Hostname Set <FQDN hostname as per source>`.
    - c. Enter `Main_Menu > Support > Reboot`.
  7. To configure the NetBackup Appliance as a media server:
    - a. Login to the NetBackup Appliance console (`Main_Menu > Appliance`).
    - b. Run the master commands.
    - c. Enter the required parameters.

**Note:** After successful migration, you can modify the DNS entry with hostname and target IP address.

In case the NetBackup Appliance configuration, installation, or migration fails due to IP address and same host name, you must add the target IP address and host name in DNS.

For more information about installing and configuring the NetBackup Appliance, see the following:

- *NetBackup Appliance Initial Configuration Guide*
- *NetBackup Appliance Hardware Installation Guide*
- *NetBackup Appliance Commands Reference Guide*

### 2.5.1.2 Configuring a NetBackup target media server

To set up the target media server, perform the following steps:

1. Set the target media server system hostname to be the same as the source media server system host name.
  - a. Review the prerequisites. See [Prerequisites](#).
  - b. Since the host name is same, you need to resolve target media server host name with IP address from local host and master server. An option to resolve the host name is by

adding the target media IP address and host name in the `/etc/hosts` file on target media server and master server.

- c. Check your system preferences for DNS or local host. If the hostname is resolved to use `/etc/hosts`, the system preference should be local host. Update the master server `/etc/hosts` entry with the target media server IP address. For example:

`/etc/nsswitch.conf`.

2. Install NetBackup on target media server with version same as that on source media server.
3. Install EEBs if applicable.
4. Copy or create touch files present on source media server to target media server.
5. Ensure that you perform all pre-migration steps on target master server. See section [Pre-migration tasks](#), as applicable.
6. Ensure there is network connectivity between master server and target media server.
7. For NetBackup version 8.1 and later versions, to install NetBackup on target media successfully, you must generate the reissue token for target media from master server.

Refer to the following link for reissue of token:

[https://www.veritas.com/content/support/en\\_US/doc/21733320-127424841-0/v120724185-127424841](https://www.veritas.com/content/support/en_US/doc/21733320-127424841-0/v120724185-127424841).

## 3. Starting the media server migration

This section describes the steps that are required to migrate the media server. Veritas recommends that you use the existing media server (non-master) as a restore media server and target new backups to different media server.

To start, check for the following:

### 3.1 About migrating BasicDisk and AdvancedDisk

The following sections describe the scenarios to migrate BasicDisk or AdvancedDisk:

#### 3.1.1 Using existing (HP-UX or AIX) NetBackup BasicDisk or AdvancedDisk media server as a restore media server

Veritas recommends this option if your source media server (non-master) is configured with BasicDisk or AdvancedDisk.

The following steps describe the procedure:

1. Set up a media server or use an existing one and configure BasicDisk or AdvancedDisk (as applicable).
2. Identify the policies that use the BasicDisk and AdvancedDisk storage unit and are configured on the source media server.
  - a. Identify the storage unit names of BasicDisk and AdvancedDisk configured on source media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

- c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
3. Identify the SLPs that use the BasicDisk and AdvancedDisk storage unit and are configured on the source media server.
  - a. Identify the storage unit names of BasicDisk and AdvancedDisk configured on source media server.
  - b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

- c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match.
4. Update the identified policies and SLPs to use the BasicDisk and AdvancedDisk storage unit (identified in step [1](#)). Hence, all new backups are targeted to target media server. See sections [Updating policies](#) and [Updating SLP](#).
5. Use your existing HP-UX or AIX media server as a restore media server till the time all images present on the BasicDisk or AdvancedDisk expire.
6. (Optional) Duplicate longer retention images to the media server (previously identified). See section [Identifying and duplicating images](#).
7. Perform the post-migration tasks. See [Post-migration tasks](#).
8. Restore data from target media server to confirm that the migration is completed successfully.

### 3.1.2 Migrating BasicDisk or AdvancedDisk to another media server that has same host name

The following steps describe the procedure to migrate BasicDisk or AdvancedDisk to another media server that uses same host name:

1. Set the source media server to inactive from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click the media server and click **Deactivate**.
  - Using the `nbemmcmd` command from the master server:
 

```
nbemmcmd -updatehost -machinename <source_media_server_name> -
machinestateop set_admin_pause -machinetype media -masterserver
<master_server_name>
```

The `nbemmcmd` command is located at:

    - For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`
2. Shut down NetBackup services on source media server.
3. Run the `bpcIntcmd` command to clear host cache on the master server:
  - For UNIX: `/usr/opensv/netbackup/bin/bpcIntcmd -clear_host_cache`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\bpcIntcmd.exe -clear_host_cache`
4. Set up a target media server. See section [Setting up the target media server](#).
5. Ensure same path (mount point) of BasicDisk exists at target media server. Copy the directory contents to the respective mount points on the target media server. Ensure that you do this step for all BasicDisk.

6. Ensure same partition(s) (mount point) of AdvancedDisk exists at target media server. Copy the directory contents to the respective partition on the target media server.
7. Set the target media server to active from the master server.
  - Using the NetBackup Administration Console.
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click the required media server and click **Activate**.
  - Using the `nbeemmcmd` command from the master server:
 

```
nbeemmcmd -updatehost -machinename <target_media_server_name> -
machinestateop clr_admin_pause -machinetype media -masterserver
<master_server_name>
```

The `nbeemmcmd` command is located at:

    - For UNIX: `/usr/openv/netbackup/bin/admincmd/`
    - For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd\`
8. Perform the post-migration tasks. See [Post-migration tasks](#).
9. Restore data from target media server to confirm that the migration is completed successfully.

### 3.1.3 Migrating BasicDisk or AdvancedDisk if it is configured on master server

1. Set up the target master server. See section [Setting up the target master server](#) in the [NetBackup Master Server Migration Guide](#).
2. Ensure same path (mount point) of BasicDisk exists at target master server. Copy the directory contents to the respective mount points on the target master server. Ensure that you do this step for all BasicDisk.
3. Ensure same partition(s) (mount point) of AdvancedDisk exists at target master server. Copy the directory contents to the respective partition on the target master server.
4. Migrate the master server. See the [NetBackup Master Server Migration Guide](#).
5. Perform the post-migration tasks. See [Post-migration tasks](#).
6. Restore data from target media server to confirm that the migration is completed successfully.

#### Notes:

- Ensure that the system time is same on the master and media server when you check the connectivity between them.
- To install NetBackup on target media successfully, you need to reissue authorization token for target media from master server. Refer to the following link to reissue a token:
   
[https://www.veritas.com/content/support/en\\_US/doc/21733320-127424841-0/v120724185-127424841](https://www.veritas.com/content/support/en_US/doc/21733320-127424841-0/v120724185-127424841).

## 3.2 About migrating the Media Server Deduplication Pool (MSDP) media server

The following sections describe how to migrate the MSDP media server.

### 3.2.1 Using existing (HP-UX or AIX) NetBackup MSDP media server as a restore media server

Veritas recommends this option if your source media server (non-master) is configured with MSDP. This option reduces the effort of identifying and duplicating MSDP images.

The following steps describe the procedure:

1. Set up an MSDP media server or use an existing one and configure MSDP (as applicable).
2. Identify the policies that use the MSDP storage unit and are configured on the source media server.
  - a. Identify the storage unit names of MSDP configured on source media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

    - For UNIX: `/usr/opensv/netbackup/bin/admincmd`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
  - c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
3. Identify the SLPs that use the MSDP storage unit and are configured on the source media server.
  - a. Identify the storage unit names of MSDP configured on source media server.
  - b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

    - For UNIX: `/usr/opensv/netbackup/bin/admincmd`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
  - c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match.
4. Update the identified policies and SLPs to use the MSDP media server storage unit (identified in step [1](#)). Hence, all new backups are targeted to target MSDP media server. See sections [Updating policies](#) and [Updating SLP](#).
5. Use your existing HP-UX or AIX media server as a restore media server till the time all images present on the MSDP media server expire.

6. (Optional) Duplicate longer retention images to the media server (previously identified). See section [Identifying and duplicating images](#).

### 3.2.2 Migrating existing (HP-UX or AIX) NetBackup MSDP media server to another media server that uses same host name

You need to set up a proxy MSDP media server to temporarily hold the MSDP data. See [Glossary of terms](#).

#### **Tips:**

- Expire all your non-essential images from the source MSDP server before starting the migration.
- After you target the backup policies and SLPs to the proxy or target MSDP server, deduplication ratio for the initial backup is low.
- You may want to change the primary image copy number as duplication changes the image copy number.

MSDP server migration is a time-consuming process, so plan your MSDP server migration accordingly. The proxy MSDP media server must have minimum disk space that equals the source MSDP media server disk space to hold the previously backed-up images.

This migration is a two-step process as follows:

- A. [Migrating MSDP data from source MSDP media server to proxy MSDP media server](#)
- B. [Migrating MSDP data from proxy MSDP media server to target MSDP media server that uses same host name as source](#)

#### **A. Migrating MSDP data from source MSDP media server to proxy MSDP media server**

Complete the following steps:

1. Set up the proxy MSDP media server. See *NetBackup Deduplication Guide* to know how to configure MSDP media server.
2. Identify the policies that use the MSDP storage unit and are configured on the source media server.
  - a. Identify the MSDP storage unit names that are configured on source media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

- c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
  3. Identify the SLPs that use the MSDP storage unit and are configured on the source media server.
    - a. Identify the MSDP storage unit names that are configured on source media server.
    - b. Run the following command on the master server:
 

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

      - For UNIX: `/usr/opensv/netbackup/bin/admincmd`
      - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
    - c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match.
  4. Update the identified policies and SLPs to use the proxy MSDP media server storage unit. Hence, all new backups are targeted to proxy MSDP server. See sections [Updating policies](#) and [Updating SLP](#).
  5. Identify all your backed-up images present on source MSDP media server and duplicate all the images to proxy MSDP media server to use NetBackup optimized deduplication. See section [Identifying and duplicating images](#).
- Notes:**
- This process is time consuming and is based on number of images present on source MSDP media server.
  - You may want to update the retention period of images as part of duplication.
6. Verify that all backed-up images present on the source MSDP media server are duplicated to proxy MSDP media server. See [Verifying backup images](#).
 

**Caution:** Complete this step to avoid data loss.
  7. Remove the NetBackup catalog entries of the images present on source media server. Use `bpexpdate` with `-nodelete` option to expire the images. `-nodelete` option retains the backed-up images present on the storage device. See the *NetBackup Commands Reference Guide*.
 

**Note:** Veritas recommends that you keep the backed-up MSDP images for a few months (at least 6 months) as a back out plan.
  8. Remove the MSDP configuration from the source media server. See [Removing NetBackup media server deduplication pool](#).

## B. Migrating MSDP data from proxy MSDP media server to target MSDP media server that uses same host name as source

If your NetBackup master server is configured as a source MSDP media server, migrate the NetBackup master server before starting this procedure. See the [NetBackup Master Server Migration Guide](#).

Complete the following steps:

1. Set up a target media server or use an existing one and configure MSDP (as applicable). If your target media server is a master server, configure MSDP on the master server.  
See *NetBackup Deduplication Guide* to know how to configure an MSDP media server.
2. Identify the policies that use the MSDP storage unit and are configured on the proxy media server.
  - a. Identify the MSDP storage unit names that are configured on proxy media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
- c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
3. Identify the SLPs that use the MSDP storage unit and are configured on the proxy media server.
    - a. Identify the MSDP storage unit names that are configured on proxy media server.
    - b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
- c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match.
4. Update the identified policies and SLPs to use the target MSDP media server storage unit. Hence, all new backups are targeted to target MSDP media server. See sections [Updating policies](#) and [Updating SLP](#).
  5. Identify all the images present on proxy media server and duplicate all the images to target MSDP media server to use NetBackup optimized deduplication. See section [Identifying and duplicating images](#).

**Notes:**

- This process is time consuming and is based on number of images and the data size present on proxy MSDP media server.
  - You may want to update the retention period of images as part of duplication.
6. Verify that all backed-up images present on the proxy MSDP media server are duplicated to target MSDP media server. See [Verifying backup images](#).
- Caution:** Complete this step to avoid data loss.
7. Remove the NetBackup catalog entries of the images present on proxy media server. Use `bpexpdate` with `-nodelete` option to expire the images. `-nodelete` option retains the backed-up images present on the storage device. See the *NetBackup Commands Reference Guide*.
  8. Remove the MSDP configuration from the proxy media server. See [Removing NetBackup media server deduplication pool](#).

### 3.3 Migrating robots and tape drives

The following sections describe how to migrate robots and tape drives that are configured on media and master servers.

**Note:** You cannot use the restore host migration option if robots and tape devices are connected to your source media server.

#### 3.3.1 Migrating robots and tape drives configured on media server to another media server that has same host name

The following steps describe how to migrate robots and tape drives that are managed by NetBackup Media Manager or by Network Data Management Protocol (NDMP) (not a master server):

1. Identify and note down all the robotic libraries and drive's details (number of drives, drive paths, all media IDs, slot numbers, changer, control host, scan host, and so on). This information is required later when you reconfigure the robotic libraries and drives on the target media server.
2. Set the source media server to inactive.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click media server and click **Deactivate**.
  - Using the `nbemmcmd` command from the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -
machinestateop set_admin_pause -machinetype media -
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

- o For UNIX: `/usr/opensv/netbackup/bin/admincmd/`

- o For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd\`
3. Delete robotic library and drives from the source media server. Do not delete associated media IDs from the NetBackup configuration. This step is applicable for both physical robotic libraries or VTLs. Veritas recommends that you follow the steps for single robotic library at a time.
    - To delete a drive using the NetBackup Administration Console:
      - a. Click **Media and Device Management > Devices > Drives**.
      - b. Right click the appropriate drive and click **Delete**.
    - Run the following command on the master server to delete a drive:
 

```
tpconfig -delete -drive <drive index>
```

      - To delete a robot using the NetBackup Administration Console:
        - a. Click **Media and Device Management > Devices > Robots**.
        - b. Right click the appropriate drive and click **Delete**.
      - Run the following command on the master server to delete a robot:
 

```
tpconfig -delete -robot <robot number>
```

The `tpconfig` command is located at:

- For UNIX: `/usr/opensv/volmgr/bin`
- For Windows: `<install_path>\Volmgr\bin`

4. Shut down the NetBackup services on the source media server and disconnect any tape storage devices (physically SCSI connected or use SAN configuration).
5. Provision a target media server as follows:
  - The target NetBackup media server version should be same as source media server version.
  - The target media server must have same host name and IP address as the source media server.
  - Connect any storage devices to the target media server.
  - You can use a different IP address provided the DNS is updated, however, the host name must not be changed.
  - Ensure network connectivity between master server and target media server.
6. Run the `bpclntcmd` command to clear host cache on the master server:
  - For UNIX: `/usr/opensv/netbackup/bin/bpclntcmd -clear_host_cache`
  - For Windows: `<install_path>\VERITAS\NetBackup\bin\bpclntcmd.exe -clear_host_cache`

**Note:** Run this command only if your target media server IP address has changed.

7. Update the operating system of the target media server from the NetBackup master server as follows:

```
nbemmcmd -updatehost -machinename <machine name> -operatingsystem
<os name> -machinetype <machine type> -masterserver
<master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: /usr/opensv/netbackup/bin/admincmd
  - For Windows: <install path>\VERITAS\NetBackup\bin\admincmd
8. Set the target media server to active from the master server.
    - Using the NetBackup Administration Console
      - a. Click **Media and Device Management > Devices > Media Servers**.
      - b. Right click the required media server and click **Activate**.
    - Using the nbemmcmd command from the master server
 

```
nbemmcmd -updatehost -machinename <target_media_server_name> -
machinestateop clr_admin_pause -machinetype media -
masterserver <master_server_name>
```

The nbemmcmd command is located at:

      - o For UNIX: /usr/opensv/netbackup/bin/admincmd/
      - o For Windows: <install path>\VERITAS\NetBackup\bin\admincmd\
  9. Run the **Configure Storage Devices** wizard from the NetBackup Administration Console on the master server. This wizard discovers the robotic libraries and drives on the target media server.
  10. Confirm that the media type of any tape devices and robot number matches the source media server configurations. For more details about changing device media types and robot numbers from the command line, see the following guides:
    - *NetBackup Administration Guide Volume I*
    - *NetBackup Administration Guide Volume II*
    - *NetBackup Commands Guide*.
  11. Run the robot inventory using the NetBackup Administration Console as follows:
    - a. Select **Media and Device Management > Devices > Robots**.
    - b. Right click the robot and select **Inventory Robot**.
    - c. Select **Update volume configuration**.
    - d. If the **Shared Storage Option** is configured, run the inventory from robot control host.
  12. Perform the post-migration tasks. See [Post-migration tasks](#).
  13. Test that the backups and restores are successful. Also, verify that restores from previously backed-up images are successful.

**Note:** If Shared Storage Option is configured to use multiple AIX or HP-UX media servers, migrate all these media servers before running the robot inventory.

### 3.3.2 Migrating robots and tape drives configured on master server

The following steps describe how to migrate robots and tape drives that are managed by NetBackup Media Manager or by Network Data Management Protocol (NDMP) configured on source master server:

1. Set the source media server to inactive from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click media server and click **Deactivate**.
  - Using the `nbemmcmd` command from the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -
machinestateop set_admin_pause -machinetype media -
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

- o For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
- o For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd\  
<master_server_name>`

2. Note down all the robotic libraries and drive's details (number of drives, drive paths, all media IDs, slot numbers, changer, control host, scan host, and so on). This information is required later when you reconfigure the robotic libraries and drives on the target master server.
3. Delete robotic library and drives from the source master server. Do not delete associated media IDs from the NetBackup configuration. This step is applicable for both physical robotic libraries or VTLs. Veritas recommends that you follow the steps for single robotic library at a time.

- To delete a drive using the NetBackup Administration Console:
  - a. Click **Media and Device Management > Devices > Drives**.
  - b. Right click the appropriate drive and click **Delete**.
- Run the following command to delete a drive:
- To delete a robot using the NetBackup Administration Console:
  - a. Click **Media and Device Management > Devices > Robots**.
  - b. Right click the appropriate drive and click **Delete**.
- Run the following command on the master server to delete a robot:

```
tpconfig -delete -drive <drive index>
```

```
tpconfig -delete -robot <robot number>
```

The `tpconfig` command is located at:

- For UNIX: `/usr/opensv/volmgr/bin`
- For Windows: `<install_path>\Volmgr\bin`

4. Disconnect any tape storage devices (physically SCSI connected or use SAN configuration) connected to the source master server.
5. Provision a target master server. See section [Setting up the target master server](#) in the [NetBackup Master Server Migration Guide](#).
6. Migrate the master server. See the [NetBackup Master Server Migration Guide](#).
7. Set the target media server to active from the master server.
  - Using the NetBackup Administration Console.
    - a. Click **Media and Device Management > Devices > Media Servers**.

- b. Right click the required media server and click **Activate**.
- Using the `nbermmcmd` command from the master server

```
nbermmcmd -updatehost -machinename <target_media_server_name> -  
machinestateop clr_admin_pause -machinetype media -masterserver  
<master_server_name>
```

The `nbermmcmd` command is located at:

- o For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
- o For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd\`

8. Run the **Configure Storage Devices** wizard from the NetBackup Administration Console on the master server. This wizard discovers the robotic libraries and drives on the target media server.
9. Confirm that the media type of any tape devices and robot number matches the source master server configurations. For more details about changing device media types and robot numbers from the command line, see the following guides:
  - *NetBackup Administration Guide Volume I*
  - *NetBackup Administration Guide Volume II*
  - *NetBackup Commands Guide*.
10. Run the robot inventory using the NetBackup Administration Console as follows:
  1. Select **Media and Device Management > Devices > Robots**.
  2. Right click the robot and select **Inventory Robot**.
  3. Select **Update volume configuration**.
  4. If the **Share Storage** option is configured, run the inventory from robot control host.
11. Perform the post-migration tasks. See [Post-migration tasks](#).
12. Test that the backups and restores are successful. Also, verify that restores from previously backed-up images are successful.

**Note:** If Shared Storage Option is configured to use multiple AIX or HP-UX media servers, migrate all these media servers before running the robot inventory.

### 3.4 Migrating the SAN media server

To migrate SAN media server, see section Convert SAN media server to a SAN client in the *NetBackup SAN Client and Fibre Transport Guide*.

Ensure that all NetBackup servers run a release that supports the SAN Client feature.

**Note:** The client's hostname must be the same.

## 3.5 Migrating cloud storage or other Open Storage (OST) devices configuration

The following sections describe how to migrate cloud storage or other OST devices like NDMP and RD configured on media and master servers.

### 3.5.1 Migrating cloud storage or other OST devices configured on media server

The following steps describe the procedure to migrate the cloud storage or other Open Storage (OST) devices like NDMP and RD configurations to another media server that uses the same host name:

1. Set the source media server to inactive from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click media server and click **Deactivate**.
  - Using the `nbemmcmd` command from the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -  
machinestateop set_admin_pause -machinetype media -masterserver  
<master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`
2. Shut down NetBackup services on source media server.
  3. Run the `bpclntcmd` command to clear host cache on the master server:
    - For UNIX: `/usr/opensv/netbackup/bin/bpclntcmd -clear_host_cache`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\bpclntcmd.exe -clear_host_cache`
  4. Set up the target media server:
    - Set up your target media server. See [Setting up the target media server](#).
    - Additional steps that are required to migrate the cloud storage configuration:
      - Solaris\_x86 is not supported as a cloud media server.
      - For NetBackup 7.7.2 and later versions:
        - a. Stop NetBackup service on the target media server.
        - b. Copy all files and subdirectories from `/usr/opensv/netbckup/db/cloud/` directory on source media server to the same location on the target media server.
        - c. Start NetBackup services on target media server.
      - For versions before NetBackup 7.7.2:
        - a. Stop NetBackup service on the target media server.
        - b. Copy all files from `/usr/opensv/lib/ost-plugins` directory (excluding libraries (for example \*.so)) of source media server to the same location on the target media server.

- c. Start NetBackup service on the target media server.
- 5. Set the target media server to active from the master server.
  - Using the NetBackup Administration Console.
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click the required media server and click **Activate**.
  - Using the `nbevmcmd` command from the master server

```
nbevmcmd -updatehost -machinename <target_media_server_name> -
machinestateop clr_admin_pause -machinetype media -masterserver
<master_server_name>
```

The `nbevmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`
- 6. Perform the post-migration tasks. See [Post-migration tasks](#).
  - 7. Test that the backups and restores are successful. Also, verify that restores from previously backed-up images are successful.

### 3.5.2 Migrating cloud storage or other OST devices configured on master server

The `NbServerMigrator` tool migrates the cloud storage or other OST devices like NDMP and RD when you migrate the master server.

**Note:** Solaris\_x86 is not supported as a cloud master server. If your target master server is Solaris\_x86, see section Cloud configuration in the [NetBackup Master Server Migration Guide](#).

## 4. Common tasks for migration

This section describes the common tasks that you may encounter during the media server migration.

### 4.1 Updating policies

You can update the policies by using either the NetBackup Administration Console or using the `bpplinfo` command as follows:

- Using the NetBackup Administration Console
  1. Select **NetBackup Management > Policies**.
  2. Right click the policy and click **Change**.
  3. Update the **Policy Storage**.
- Using the `bpplinfo` command

Use the `bpplinfo` command to update the NetBackup policies. You must update the `residence` attribute. Run the following command on the master server to update the storage unit from master server:

```
bpplinfo <policy name> -modify -residence <stu name>
```

The `bpplinfo` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

### 4.2 Updating SLPs

You can update the SLPs by using either the NetBackup Administration Console or using the `nbstl` command as follows.

Multiple media migration scenarios refer to the section. Based on the context (source, proxy, or target), update the SLP destination storage.

- Using the NetBackup Administration Console:
  - Select **NetBackup Management > Storage > Storage Lifecycle Policies**.
  - Right click the SLP and click **Change**.
  - Go to **Storage Lifecycle policy**.
  - Select the operation and change the **Destination storage**.
- Using the `nbstl` command:

You may use the `nbstl` command to update the SLPs.

For example: `nbstl SLP-duplication -modify_current -residence stu1, stu2`

See the *NetBackup Commands Reference Guide* for more details.

If configured SLP has multiple versions, you must update the destination storage based on the context storage unit that is referred in the corresponding SLP versions.

Run the following command on the master server to display the SLP versions:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

See following knowledge base articles for more information:

- [https://www.veritas.com/support/en\\_US/article.100003940](https://www.veritas.com/support/en_US/article.100003940)
- [https://www.veritas.com/support/en\\_US/article.100011045.html](https://www.veritas.com/support/en_US/article.100011045.html)

If Auto Image Replication (AIR) is configured and used in SLPs, do the followings:

1. Update the AIR configuration see [Updating Auto Image Replication](#).
2. Update the SLPs to use the proxy MSDP storage unit.

### 4.3 Updating Auto Image Replication (AIR)

The following sections describe how to update the AIR configuration with new (proxy or target) MSDP storage server.

**Note:** The source MSDP media server can be the source media server or proxy media server. The target MSDP media server can be the proxy media server or target media server. See the context of the media server that is associated to the section

The following steps describe the procedure to update the AIR configuration using NetBackup Administrator Console:

1. Add replication properties to the proxy MSDP storage.
  - a. Go to **Media and Device Management > Credentials > Storage servers**
  - b. Select the proxy storage server, right-click and select **Change**.
  - c. Go to the **Media Server** tab and select the proxy media server.
  - d. Go to the **Replication** tab
  - e. Click **Add**.
  - f. Add AIR target master server information and click **OK**.
2. Add the proxy MSDP storage server on the AIR target master server, if applicable.
  - a. Identify the storage server used in the AIR configuration.
  - b. Go to **Media and Device Management > Credentials > Storage servers**.
  - c. Select the storage server used for AIR replication, right-click and select **Change**.
  - d. Go to the **Replication** tab.
  - e. Click **Add**.
  - f. Add the AIR source master server details with proxy media server information and click **OK**.

See *NetBackup Deduplication Guide* for more details about AIR.

## 4.4 Identifying and duplicating images

The following sections describe how to identify and duplicate images on the media server.

### 4.4.1 Identifying and duplicating images on a non-appliance media server

You can identify and duplicate images on a non-appliance media server by using either the NetBackup Administration Console or using the `bpimagelist` command as follows:

- Using the NetBackup Administration Console, search for all the images present on the media server:
  1. Go to **NetBackup Management > Catalog**.
  2. In the **Search** tab, in the **Action** drop-down list, select **Duplicate**.
  3. Filter images based on the **Disk Type** criteria.
  4. Click **Search Now**.
  5. Select all the images (or in batches) from the **Search Results** table, right-click and select **Duplicate**.
  6. In the Setup Duplication Variables dialog box, select the **Storage unit** where you want to duplicate. You may want to change the **Primary Copy** or **Retention** level.
  7. Click **OK**.
- Using the NetBackup commands (on the master server):
  1. Run the `bpimagelist` command to list the images present on media server.

```
bpimagelist -server <media_server_name>
```

You can filter the image based upon the storage device type using **Media Descriptor** attribute.

The `bpimagelist` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

2. Run the `bpduplicate` command to duplicate the images.

See the *NetBackup Commands Reference Guide*.

### 4.4.2 Identifying and duplicating images for NetBackup appliance

Use the media server appliance utility to schedule the migration of images to NetBackup appliance. See the *NetBackup Appliance Guide*.

## 4.5 Verifying backup images

You can verify backup images by using either the NetBackup Administration Console or the `bpverify` command as follows:

- Using the NetBackup Administration Console
  1. Go to NetBackup **Management > Catalog**.

2. In the **Search** tab, in the **Action** drop-down list, select **Verify**.
  3. Filter images based on the **Disk Type** criteria.
  4. Click Search **Now**.
  5. Select all the images (or in batches) from the **Search Results** table, right-click and select **Verify**.
  6. In the Confirm Verify dialog box, click **OK**.
  7. Click the **Results** tab and verify that the operation is successful.
- Using the NetBackup commands (run on master server)
    1. Run the `bpimagelist` command to list the images present on media server.

```
bpimagelist -server <media_server_name>
```

You can filter the image based upon the storage device type that uses **Media Descriptor** attribute.

The `bpimagelist` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd`
- For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd`

2. Run the `bpverify` command to verify the images.

See the *NetBackup Commands Reference Guide*.

## 4.6 Removing NetBackup media server deduplication pool

The following steps describe the procedure to remove the NetBackup Media Server Deduplication Pool (MSDP):

**Note:** The source MSDP media server can be the source media server or proxy media server. The target MSDP media server can be the proxy media server or target media server. See the context of the media server that is associated to the section.

1. Ensure all the images present on the source MSDP server are duplicated to target MSDP media server.
2. Ensure backup policies and SLPs are targeted to target MSDP storage unit. Remove all the reference of source MSDP STU. See sections [Updating policies](#) and [Updating SLP](#).
3. Use the `nbstlutil` command to cancel processing on any image copies that may be targeting the source MSDP disk pool.
4. Remove the catalog entries of images of source MSDP media server. Use `bpexpdate` with `-nodelete` option to expire the images, to remove images from the NetBackup catalog. However, these images are kept intact on the storage disk. See the *NetBackup Commands Reference Guide*.

For example: `/usr/openv/netbackup/bin/admincmd/bpexpdate -stype PureDisk -nodelete -dp <disk pool name>`

Veritas recommends that you keep the backup MSDP images on the storage disk for a few months (at least 6 months) for disaster recovery.

You may need to perform following additional steps if you encounter status code 1573. See the *NetBackup Status Codes Reference Guide* for details about the error.

In case you encounter status code 1573, do one of the following:

- Wait until SLP processing for that image is complete. Then, retry the expiration operation.
  - Run the `nbstlutil -cancel` command to cancel further processing on the relevant image. Then, retry the expiration operation.
  - Run the `bpexpdate` command with the `-force_not_complete` option to force expiration even if the image copy is not SLP complete.
5. Delete all the storage units that are targeted to source MSDP disk pool.
  6. Mark the disk pool state as **DOWN** using the `nbdevconfig` command.  

```
/usr/opensv/netbackup/bin/admincmd/nbdevconfig -changestate -stype PureDisk -dp MSDP_DiskPoolName -dv PureDiskVolume -state DOWN
```
  7. Run the following command on the master server and locate the NDMP `machinetype` entry corresponding to the source MSDP storage server from the output:  

```
/usr/opensv/netbackup/bin/admincmd/nbemmcmd -listhosts
```
  8. Delete the MSDP disk pool from **Devices > Disk Pools** in the NetBackup Administration Console.

If Auto Image Replication (AIR) is configured, use the following command to forcefully delete the disk pool:

```
/usr/opensv/netbackup/bin/admincmd/nbdevconfig -deletedp -stype PureDisk -dp <disk pool name> -force_targetslp_removal
```

9. Delete the storage server credentials, storage server, and the storage server NDMP `machinetype` entry from the EMM database using the following command:

```
/usr/opensv/volmgr/bin/tpconfig -delete -storage_server MSDP_StorageServerName -stype PureDisk -sts_user_id root
```

Execute the following remaining commands from

```
/usr/opensv/netbackup/bin/admincmd
```

- `nbdevconfig -deletedp -stype PureDisk -dp MSDP_DiskPoolName`
- `nbdevconfig -deletests -storage_server MSDP_StorageServerName -stype PureDisk`
- `nbemmcmd -deletehost -machinename MSDP_StorageServerName -machinetype ndmp`

**Note:** The `tpconfig` and `nbdevconfig` commands may fail if the storage server and NDMP credentials (that is, `machinetype` entry) were previously deleted from the NetBackup Administration Console.

10. Stop NetBackup services on the MSDP server.
11. Execute the `PDDE_deleteConfig` script to remove the MSDP configurations:  
`/usr/opensv/pdde/pdconfigure/scripts/installers/PDDE_deleteConfig.  
sh`
12. Remove any storage server configuration files referencing the MSDP storage server from NetBackup media servers. The configuration files (`MSDP_<StorageServerName>.cfg`) are located in the `ost-plugins` folder (`/usr/opensv/lib/ost-plugins`).  
  
**Note:** If there are other fingerprint load balancing media servers in the configuration, the storage server configuration file (`MSDP_<StorageServerName>.cfg`) should be removed from the `ost-plugins` folder of those media servers as well.
13. Restart the NetBackup services on the master server.

See article [https://www.veritas.com/support/en\\_US/article.TECH150431](https://www.veritas.com/support/en_US/article.TECH150431) as a reference to remove the MSDP media server pool.

## 5. About custom scripts and touch files

Run the following command to list all the touch files on the source media server. However, the command may not list some custom touch files. You must manually identify and copy these unlisted touch files along with the touch files listed by the command to the target media server as applicable.

```
/usr/opensv/netbackup/bin/goodies/bpconverttouch
```

**Note:** All touch files (for example, OS-specific files or scripts) may not be applicable for the target media server. Copy or update the required touch files and add or update the entries as applicable.

Veritas recommends that you review `bp.conf` and `vm.conf` of source media server and add or update the required entries on target media server.

## 6. Post-migration tasks

After migration from source media to target media server, perform the following steps to ensure that migration is successful:

1. Update the network settings on the target media server.
  - If you opted to use same IP address as source media server (target and source media have same IPs), perform the following steps:
    - a. Power off the source media server.
    - b. Stop NetBackup services on the target media server.
    - c. Change the IP address of the target media server to be same as the source media server.
    - d. Ensure the network connectivity between the following:
      - i. Master server and target media servers.
      - ii. Media server and connected clients.

This step can be achieved by updating the DNS server entries or the `/etc/hosts` file entries.
    - e. Start the NetBackup services on the target media server.
    - f. (Optional) Clear the cache on master servers and associated clients. To do this, run the following command:
      - For UNIX: `/usr/opensv/netbackup/bin/bpclntcmd -clear_host_cache`
      - For Windows: `<install path>\VERITAS\NetBackup\bin\bpclntcmd.exe -clear_host_cache`

**Note:** This step is optional as NetBackup clears the host cache after every hour.
  - If you opted for existing IP address of target media server (target and source media have different IPs), perform the following steps:
    - a. Update DNS server entry to map to new IP address or `/etc/hosts` file entries on master server and connected clients.
    - b. Ensure the network connectivity between the following:
      - i. Master server and target media servers.
      - ii. Media server and connected clients.

This step can be achieved by updating the DNS server entries or the `/etc/hosts` file entries.
    - c. (Optional) Clear the cache on connected clients. To do this, run the following command:

```
/usr/opensv/netbackup/bin/bpclntcmd -clear_host_cache
```

**Note:** This step is optional as NetBackup clears the host cache after every hour.
2. Run the following command to check media server connectivity with EMM server:

```
nbemmcmd -getemmserver
```
3. Run the following command to check disk mount points on target media server:

```
nbdevquery -listmounts
```

4. Run the following command to check all drive names, drive paths, and robotic libraries on target media server:  

```
/usr/opensv/volmgr/bin/tpconfig -d
```
5. Ensure that all BasicDisk, AdvancedDisk, and PureDisk paths have appropriate permissions.
6. Test that the backups and restores are successful. Also, verify that restores from previously backed-up images are successful.
7. Ensure that all BasicDisk paths, mount points, attached devices, and so on, are available on target media server.
8. Identify the policies that use the source media server as a client.
  - a. Verify if the policies are needed on the target media server.
  - b. If you want to continue to use the policies, you must update the operating system of the client in the policy.
    - i. Using NetBackup Administration Console, go to **NetBackup Management > Policies**.
    - ii. Select the policy.
    - iii. Right click the policy and select **Change**.
    - iv. Click the **Client** tab.
    - v. Select the client and click **Change** to update the operating system.

**Note:** Veritas recommends that you review `bp.conf` and `vm.conf` of source media server and add or update the required entries on target media server. The next backup that uses the Accelerator feature is not optimized for the clients that use the target media server. So, this backup is a FULL backup.

## 7. Decommissioning the media server

Select one of the following options based on the media migration strategy.

- Decommission the restore media server after all the images present on the restore media server are expired.
- Decommission the source media server after all the configured or attached storage devices are migrated successfully to the target media server.

**NOTE:**

Veritas recommends that you do not delete the backed-up images that are stored on the source media server for a few months (at least 6 months) after successful migration even if target media server works as expected.

See the `nbdecommission` command in the *NetBackup Commands Reference Guide*.

## 8. Back-out plan

You must apply the back-out plan only after you experience an issue and you cannot find a solution in the NetBackup Knowledge Base or the NetBackup product guides. Contact Veritas support to investigate the cause of failure of the migration.

Veritas recommends that you do not delete the backed-up images that are stored on the source media server for a few months (at least 6 months) after successful migration even if target media server works as expected.

When following the back-out plan, the source media server must be reverted to its original state.

The following sections describe the back-out plans. The plans depend upon the storage device that is attached to the media server and the type of media server migration.

**Caution:** If multiple storage devices are configured or attached to the source media server and the migration fails for one storage device, you must apply the back-out plan to the failed and successfully migrated storage devices.

### 8.1 Back-out plan for BasicDisk and AdvancedDisk migration

The following sections describe the back-out plan for BasicDisk and AdvancedDisk migration depending upon the type of migration approach.

#### 8.1.1 Back-out plan for (HP-UX or AIX) NetBackup media server when used as a restore media server

1. Identify the policies that use the BasicDisk and AdvancedDisk storage unit and are configured on the target media server.
  - a. Identify the storage unit names of BasicDisk and AdvancedDisk configured on target media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
- c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
2. Identify the SLPs that use the BasicDisk and AdvancedDisk storage unit and are configured on the target media server.
    - a. Identify the storage unit names of BasicDisk and AdvancedDisk configured on target media server.

- b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

- c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match.
3. Update the identified policies and SLPs to use the source `BasicDisk` and `AdvancedDisk` storage unit. Hence, all new backups are targeted to source media server. See sections [Updating policies](#) and [Updating SLP](#).

### 8.1.2 Back-out plan for `BasicDisk` or `AdvancedDisk` migration to another media server that has same host name

1. Set the target media server to inactive from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click media server and click **Deactivate**.
  - Using the `nbemmcmd` command from the master server:

```
nbemmcmd -updatehost -machinename <media_server_name> -  
machinestateop set_admin_pause -machinetype media -  
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`

2. Start the NetBackup services on source media server and ensure the connectivity to master server.
3. Ensure same path (mount point) of `BasicDisk` exists at source media server. Verify that the previously backed-up images exist on the respective mount points on the source media server. If any image is not present, ensure that you copy the images from target media server. Ensure that you do this step for all `BasicDisk`.
4. Ensure same partition(s) (mount point) of `AdvancedDisk` exists at source media server. Verify that the previously backed-up images exist on the partitions on the source media server. If any image is not present, ensure that you copy the images from target media server.
5. Run the `bpclntcmd` command to clear host cache on the master server:
  - For UNIX: `/usr/opensv/netbackup/bin/bpclntcmd -clear_host_cache`

- For Windows: `<install path>\VERITAS\NetBackup\bin\bpcIntcmd.exe -clear_host_cache`
6. If NetBackup 8.1 or later version is installed on your source media server, you must generate the reissue token on master server and get the certificate on the source media server.
- a. Create reissue token on master server. See *NetBackup Security and Encryption Guide*.  
Run the following commands on the master server:  

```
bpnbat -login -logintype WEB  
  
nbcertcmd -createToken -name <token_name> -reissue -host  
<host_name>
```

  
The `nbcertcmd` and `bpnbat` commands are located at:
    - For UNIX: `/usr/opensv/netbackup/bin`
    - For Windows: `<install path>\VERITAS\NetBackup\bin`
  - b. Copy certificate to the media server. See *NetBackup Security and Encryption Guide*.  
Run the following command on the master server:  

```
nbcertcmd -getcertificate -token -force
```

  
The `nbcertcmd` commands are located at:
    - For UNIX: `/usr/opensv/netbackup/bin`
    - For Windows: `<install path>\VERITAS\NetBackup\bin`
7. Set the source media server to active from the master server.
- Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click media server and click **Activate**.
  - Run the following `nbemmcmd` command on the master server:  

```
nbemmcmd -updatehost -machinename <source_media_server_name> -  
machinestateop clr_admin_pause -machinetype media -  
masterserver <master_server_name>
```

  
The `nbemmcmd` command is located at:
    - For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`
8. Test that the backups and restores are successful. Also, verify that restores from previously backed-up images are successful.

### 8.1.3 Back-out plan for BasicDisk or AdvancedDisk if it is configured on master server

If BasicDisk or AdvancedDisk is configured on master server, the migration is dependent on master server migration as well.

**Note:** In the following scenarios, you must back out to the source master server:

- Master server migration fails and you still want to continue to use source master server.
- BasicDisk or AdvancedDisk migration fails even after successful master server migration.

Complete the following steps to back out to the source master server:

1. Start NetBackup services on source master server and also activate SLPs and policies.
2. Ensure same path (mount point) of BasicDisk still exists on source media server. Verify that the previously backed-up images exist on the respective mount points on the source media server. If any image is not present, ensure that you copy the images from target media server. Ensure that you do this step for all BasicDisk.
3. Ensure same partition(s) (mount point) of AdvancedDisk exists at source media server. Verify that the previously backed-up images exist on the partitions on the source media server. If any image is not present, ensure that you copy the images from target media server.
4. Set the source media server to active from the master server.
  - Using the NetBackup Administration Console:
    - c. Click **Media and Device Management > Devices > Media Servers**.
    - d. Right click media server and click **Activate**.
  - Run the following `nbemmcmd` command on the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -
machinestateop clr_admin_pause -machinetype media -
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

    - For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`
5. Test that the backups and restores are successful. Also, verify that restores from previously backed-up images are successful.

## 8.2 Back-out plan for Media Server Deduplication Pool (MSDP) media server migration

The following sections describe the back-out plans for the MSDP media server migration scenarios.

### 8.2.1 Back-out plan for (HP-UX or AIX) NetBackup media server when used as a restore media server

1. Identify the policies that use the MSDP storage unit and are configured on the target media server.
  - a. Identify the MSDP storage unit names that are configured on the target media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

    - For UNIX: `/usr/openv/netbackup/bin/admincmd`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
  - c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
2. Identify the SLPs that use the MSDP storage unit and are configured on the target media server.
  - a. Identify the MSDP storage unit names that are configured on target media server.
  - b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

    - For UNIX: `/usr/openv/netbackup/bin/admincmd`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
  - c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match.
3. Update the identified policies and SLPs to use the source MSDP media server storage unit. Hence, all new backups are targeted to source MSDP media server. See sections [Updating policies](#) and [Updating SLP](#).

### 8.2.2 Back-out plan for (HP-UX or AIX) NetBackup MSDP media server migration to another media server that uses same host name

MSDP migration is a two-step process. Complete the following procedure depending upon your current stage in the migration process:

**Note:** This back out plan is also applicable for the scenario where MSDP is configured on master server.

- A. [If you have migrated from source MSDP media server to the proxy MSDP media server and want to back out to the source MSDP media server](#)

B. [If you have migrated from proxy MSDP media server to the target MSDP media server and want to back out to the proxy MSDP media server](#)

A) **If you have migrated from source MSDP media server to the proxy MSDP media server and want to back out to the source MSDP media server**

1. Ensure your source MSDP media server is up and running. Reconfigure the source MSDP media server if decommissioned.
2. Identify the policies that use the MSDP storage unit and are configured on the proxy MSDP media server.
  - a. Identify the MSDP storage unit names that are configured on proxy MSDP media server.
  - b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

    - For UNIX: `/usr/opensv/netbackup/bin/admincmd`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
  - c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.
3. Identify the SLPs that use the MSDP storage unit and are configured on the proxy MSDP media server.
  - a. Identify the MSDP storage unit names that are configured on proxy MSDP media server.
  - b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

    - For UNIX: `/usr/opensv/netbackup/bin/admincmd`
    - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`
  - c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match
4. Update the identified policies and SLPs to use the source MSDP media server storage unit. Hence, all new backups are targeted to source MSDP media server. See sections [Updating policies](#) and [Updating SLP](#).
5. Identify the images not present on the source MSDP media server and duplicate those images to source MSDP media server to use NetBackup optimized deduplication. See section [Identifying and duplicating images](#).
6. Verify that all backed-up images are present on the source MSDP media server. See [Verifying backup images](#).

**Caution:** Complete this step to avoid data loss.

7. Run test backups and restores on the source MSDP media server to confirm that it functions correctly.

**B) If you have migrated from proxy MSDP media server to the target MSDP media server and want to back out to the proxy MSDP media server**

1. Ensure that your proxy MSDP media server is up and running. Reconfigure the proxy MSDP media server if decommissioned.
2. Identify the policies that use the MSDP storage unit and are configured on the target media server.

- a. Identify the MSDP storage unit names that are configured on the target media server.
- b. Run the following command on the master server:

```
bppllist -L -allpolicies
```

The `bppllist` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

- c. In the output, compare the `Residence` attribute value to the storage unit name that is identified in step [a](#). Note down the policies if the `Residence` values are a match.

3. Identify the SLPs that use the MSDP storage unit and are configured on the target media server.

- a. Identify the MSDP storage unit names that are configured on the target media server.
- b. Run the following command on the master server:

```
nbstl -L -all_versions
```

The `nbstl` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd`

- c. In the output, compare the `Storage` attribute value to the storage unit name that is identified in step [a](#). Note down the SLPs and corresponding SLP version if the `Storage` values are a match

4. Update the identified policies and SLPs to use the proxy MSDP media server storage unit. Hence, all new backups are targeted to proxy MSDP media server. See sections [Updating policies](#) and [Updating SLP](#).
5. Identify the images not present on the proxy MSDP media server and duplicate those images to proxy MSDP media server to use NetBackup optimized deduplication. See section [Identifying and duplicating images](#).

6. Verify that all backed-up images are present on the proxy MSDP media server. See section [Verifying backup images](#).
- Caution:** Complete this step else to avoid data loss.
7. Run test backups and restores on the proxy media server to confirm that it functions correctly.

## 8.3 Back-out plan for robots and tape drives migration

The following steps describe the back out plan for robots and tape drives that are managed by NetBackup Media Manager or by Network Data Management Protocol (NDMP) (not a master server):

### 8.3.1 Back-out plan for robots and tape drives migration to another media server that has same host name

1. Set the target media server to inactive from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click the media server and click **Deactivate**.
  - Using the `nbemmcmd` command on the master server:

```
nbemmcmd -updatehost -machinename <target_media_server_name> -
machinestateop set_admin_pause -machinetype media -
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd/`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`

2. Start the NetBackup services on source media server and ensure the connectivity to master server.
3. Run the `bpclntcmd` command to clear host cache on the master server:
  - For UNIX: `/usr/openv/netbackup/bin/bpclntcmd -clear_host_cache`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\bpclntcmd.exe -clear_host_cache`
4. If NetBackup 8.1 or later version is installed on your source media server, you must generate the reissue token on master server and get the certificate on the source media server.
  - Create reissue token on master server. See *NetBackup Security and Encryption Guide*.

Run the following commands on the master server:

```
bpnbat -login -logintype WEB
```

```
nbcertcmd -createToken -name <token_name> -reissue -host  
<host_name>
```

The `nbcertcmd` and `bpnbat` commands are located at:

- For UNIX: `/usr/opensv/netbackup/bin`
- For Windows: `<install_path>\VERITAS\NetBackup\bin`
- Save certificate on media server. See *NetBackup Security and Encryption Guide*.

Run the following command on the master server:

```
nbcertcmd -getcertificate -token -force
```

The `nbcertcmd` commands are located at:

- For UNIX: `/usr/opensv/netbackup/bin`
- For Windows: `<install_path>\VERITAS\NetBackup\bin`

5. Set the source media server to active from the master server.

- Using the NetBackup Administration Console:
  - a. Click **Media and Device Management > Devices > Media Servers**.
  - b. Right click the media server and click **Activate**.
- Run the following `nbevmcmd` command on the master server:

```
nbevmcmd -updatehost -machinename <source_media_server_name> -  
machinestateop clr_admin_pause -machinetype media -  
masterserver <master_server_name>
```

The `nbevmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
- For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd\`

6. Reconnect the robotic libraries to the source media server.

7. Run the Configure Storage Devices wizard using the NetBackup Administration Console on the master server.

8. Select the source media server to discover and configure the attached robotic libraries and drives.

9. Confirm that the media type of any tape device or robot number matches the source media server configurations.

For more details about changing device media types and robot numbers from the command line, see the following guides:

- *NetBackup Administration Guide Volume I*
- *NetBackup Administration Guide Volume II*
- *NetBackup Commands Reference Guide*

10. Run the robot inventory using the NetBackup Administration Console as follows:

- a. Select **Media and Device Management > Devices > Robots**.
- b. Right click the robot and select **Inventory Robot**.

- c. Select **Update volume configuration**.
  - d. If the **Share Storage** option is configured, run the inventory from the robot control host.
11. Run test backups and restores on the source media server to confirm that it functions correctly.

### 8.3.2 Back-out plan for robots and tape drives configured on master server

If robots and tape drives are configured on master server, the migration is dependent on master server migration as well.

**Note:** In the following scenarios, you must back out to the source master server:

- Master server migration fails and you still want to continue to use source master server.
- Robots and tape drives migration fails even after successful master server migration.

Complete the following steps to back out to the source master server:

1. Start NetBackup services on source master server and also activate SLPs and policies.
2. Set the source media server to active from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click the media server and click **Activate**.
  - Using the `nbemmcmd` command on the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -
machinestateop clr_admin_pause -machinetype media -masterserver
<master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`
3. Reconnect the robotic libraries to the source master server.
  4. Run the Configure Storage Devices wizard using the NetBackup Administration Console on the master server.
  5. Select the source media server to discover and configure the attached robotic libraries and drives.
  6. Confirm that the media type of any tape device or robot number matches the source master server configurations.

For more details about changing device media types and robot numbers from the command line, see the following guides:

- *NetBackup Administration Guide Volume I*
- *NetBackup Administration Guide Volume II*
- *NetBackup Commands Reference Guide*

7. Run the robot inventory using the NetBackup Administration Console as follows:
  - a. Select **Media and Device Management > Devices > Robots**.
  - b. Right click the robot and select **Inventory Robot**.
  - c. Select **Update volume configuration**.
  - d. If the **Share Storage** option is configured, run the inventory from the robot control host.
8. Run test backups and restores on the source media server to confirm that it functions correctly.

## 8.4 Back-out plan for cloud storage or other OST devices

The following steps describe the back-out plan for cloud storage or other Open Storage (OST) devices like NDMP and RD configurations to another media server.

### 8.4.1 Back-out plan for cloud storage or other OST devices migration to another media server that has same host name

1. Set the target media server to inactive from the master server.
  - Using the NetBackup Administration Console:
    - a. Click **Media and Device Management > Devices > Media Servers**.
    - b. Right click media server and click **Deactivate**.
  - Using the `nbenmcmd` command from the master server:

```
nbenmcmd -updatehost -machinename <target_media_server_name> -
machinestateop set_admin_pause -machinetype media -
masterserver <master_server_name>
```

The `nbenmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`

2. Start the NetBackup services on source media server and ensure the connectivity to master server.
3. Run the `bpcIntcmd` command to clear host cache on the master server:
  - For UNIX: `/usr/opensv/netbackup/bin/bpcIntcmd -clear_host_cache`
  - For Windows: `<install path>\VERITAS\NetBackup\bin\bpcIntcmd.exe -clear_host_cache`
4. If NetBackup 8.1 or later version is installed on your source media server, you must generate the reissue token on master server and get the certificate on the source media server.
  - Create reissue token on master server. See *NetBackup Security and Encryption Guide*.

Run the following command on the master server:

```
bpnbat -login -logintype WEB
```

```
nbcertcmd -createToken -name <token_name> -reissue -host
<host_name>
```

The `nbcertcmd` and `bpnbat` commands are located at:

- For UNIX: `/usr/opensv/netbackup/bin`
- For Windows: `<install_path>\VERITAS\NetBackup\bin`
- Get certificate on media server. See *NetBackup Security and Encryption Guide*.

Run the following command on the master server:

```
nbcertcmd -getcertificate -token -force
```

The `nbcertcmd` commands are located at:

- For UNIX: `/usr/opensv/netbackup/bin`
- For Windows: `<install_path>\VERITAS\NetBackup\bin`

5. Set the source media server to active from the master server.

- Using the NetBackup Administration Console:
  - a. Click **Media and Device Management > Devices > Media Servers**.
  - b. Right click media server and click **Activate**.
- Run the following `nbemmcmd` command on the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -
machinestateop clr_admin_pause -machinetype media -
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: `/usr/opensv/netbackup/bin/admincmd/`
- For Windows: `<install_path>\VERITAS\NetBackup\bin\admincmd\`

6. Run test backups and restores on the source media server to confirm that it functions correctly.

## 8.4.2 Back-out plan for cloud storage or other OST devices migration configured on master server

If cloud storage or other OST devices are configured on master server, the migration is dependent on master server migration as well.

**Note:** In the following scenarios, you must back out to the source master server:

- Master server migration fails and you still want to continue to use source master server.
- Cloud storage or other OST devices migration fails even after successful master server migration.

Complete the following steps to back out to the source master server:

1. Start NetBackup services on source master server and also activate SLPs and policies.
2. Set the source media server to active from the master server.

- Using the NetBackup Administration Console:
  - a. Click **Media and Device Management > Devices > Media Servers.**
  - b. Right click the media server and click **Activate.**
- Using the `nbemmcmd` command on the master server:

```
nbemmcmd -updatehost -machinename <source_media_server_name> -  
machinestateop clr_admin_pause -machinetype media -  
masterserver <master_server_name>
```

The `nbemmcmd` command is located at:

- For UNIX: `/usr/openv/netbackup/bin/admincmd/`
- For Windows: `<install path>\VERITAS\NetBackup\bin\admincmd\`

3. Run test backups and restores on the source media server to confirm that it functions correctly.