Compaq StorageWorks

Technical Note – HP-UX 11.0 Integration into the Compaq EBS Environment

Part Number: 274544–001

First Edition (December 2001)

This document provides instructions for configuring HP-UX 11.0 in a Compaq Enterprise Backup Solution (EBS) homogeneous environment using VERITAS Backup DataCenter v3.4.

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Technical Note Contents

This Technical Note covers the following major topics:

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Intended Audience

This document is intended to provide configuring information for customers using Enterprise Backup Solution with VERITAS NetBackup DataCenter v3.4.

The Configuration Process

- Upgrading essential EBS hardware components to meet the minimum firmware and device driver requirements.

  IMPORTANT: Refer to the EBS Compatibility Matrix for all current and required hardware, software, firmware, and device driver versions at www.compaq.com.

- Installing the minimum patch level support for:

  — HP-UX 11.0

  — VERITAS NetBackup DataCenter v3.4

  NOTE: Refer to the following websites to obtain the necessary patches:
  - For Compaq, www.compaq.com
  - For VERITAS, www.veritas.com
  - For HP, http://www.hp.com/

NOTE: Refer to the Installation Checklist near the end of this document to ensure you have correctly installed and configured all of the hardware and software in the SAN.

Initial Requirement

Compaq currently supports HP-UX in an EBS environments using HP's A5158A FC HBA. Please contact HP or your HP reseller for information on how to acquire this card.

Once your hardware is installed proceed with the following steps:

1. At the time of publication, driver 11.00.06 is the minimum supported revision. Refer to the EBS Compatibility Matrix at www.compaq.com for current drivers and supported revisions.

   To check a currently installed driver, run:

   ```
   #swlist -l bundle | grep -i A5158A
   ```

2. Drivers stape, sctl, and schgr must all be installed in your kernel. To see if these drivers are installed, run:

   ```
   #egrep "stape|sctl|schgr" /stand/system
   output:
   schgr
   sctl
   stape
   ```

If one or more of the above drivers are missing, they must be added. If they are all installed, proceed to step 8.

3. Go to the directory */stand/build* using the `cd` command:

```
# cd /stand/build
```

4. Create a new system file from the currently configured system.

```
# /usr/lbin/sysadm/system_prep -s system
```

5. Edit the file to add the appropriate drivers under Drivers and Subsystems (normally edited in alphabetical order)

```
# vi system
```

6. Compile the new Kernel:

```
#  /usr/sbin/mk_kernel –s ./system
```

7. Move the new kernel into place and save the old kernel:

```
# mv /stand/system /stand/system.old
# mv /stand/vmunix /stand/vmunix.old
# mv /stand/build/system /stand
# mv /stand/build/vmunix_test /stand/vmunix
```

The following OS patches are required for operation:

- PHKL_24221 stape cumulative patch
- PHKL_23939 fibre channel mass storage driver patch.

These patches and installation instructions are provided at the HP-UX support website:
http://us-support2.external.hp.com/wpsl/bin/doc.pl/sid=4684ba1f0d4d9eb347/screen=wpslSrchHPUXpatches?OS=HP-UX

NOTE: The patch dependencies are listed in the patch descriptions.

SAN Configuration

Set up the qualified tape library and Fibre Channel-to-SCSI Bridge [Modular Data Router (MDR)]. Refer to the *Compaq StorageWorks Enterprise Backup Solution with VERITAS NetBackup DataCenter v3.4 User Guide* for more information.

Due to current issues with the fcparray driver within HP-UX, Compaq recommends that you disable the SCC support for the MDR.

To disable the SCC mode in the default map, follow the steps below.

1. Hyperterm into the bridge at specified baud rate.
2. Execute to disable SCC Mode:

   ```
   AMC> setsccmode off
   ```

   A message will display saying this will force a remap of the fcscsimap. Hit Y to accept.
3. Make sure the SCC Mode is disabled by:

   ```
   AMC> showfcscsimap
   ```

   If FC Lun 0 is not device type 0x0C you have completed this task.

To disable the SCC Mode on an MDR, consult the MDR user guide.

Final Host Configurations

Once preliminary devices and the appropriate drivers listed earlier are installed and the SAN configuration is complete, your host should see the devices you have presented to it.

1. Run `ioscan` to make sure you see the tape devices.

   ```
   # ioscan
   ```
2. Once you have run `ioscan` and can see the tape devices, check for device drivers assigned to each device:

   ```
   # ioscan –fnkC tape
   ```
3. If no device drivers have been installed execute:

   ```
   # insf –C tape –e
   ```

   <repeat step 2 to make sure device drivers are assigned>

You are now ready to install and configure VERITAS Netbackup DataCenter v3.4.

Installation Checklist

Once you have completed the SAN configuration, review the questions below to ensure that all components on the SAN are logged in and configured properly. You must be able to answer **yes** to each of the following questions. If you answer **no** to any of these questions, review the information in this document.

- Are all hardware components at the minimum supported firmware revision (HBA, Fibre Channel Switch, Fibre Channel-to-SCSI Bridge, tape library drives, tape library robot)?
- Is the minimum supported HBA driver loaded on the HP-UX host?
- Is the tape library online?
- Are all tape and robotic devices mapped and configured on the Fibre Channel-to-SCSI Bridge?
- Is the Fibre Channel-to-SCSI Bridge correctly logged into the Fibre Channel Switch?
- Is the HP-UX host server correctly logged into the Fibre Channel Switch?
- If the Fibre Channel Switches are cascaded, are both ISL ports correctly logged in?
- Is the Fibre Channel-to-SCSI Bridge and the HP-UX servers' HBA in the same Switch Zone [either by WWN (soft) or Port (hard)]?