

# SAN Host 1.0 for Fibre Channel Protocol on HP-UX® **Release Notes**

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# SAN Host 1.0 for Fibre Channel Protocol on HP-UX overview

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## Host Attach Kit components

The SAN Host Attach Kit 1.0 for HP-UX includes the software components you need to configure an HP-UX machine as the host component in a Network Appliance™ SAN environment. The following items are part of the Host Attach Kit components.

- ◆ *SAN Setup Overview for FCP*
- ◆ *SAN Host Attach Kit 1.0 for Fibre Channel Protocol on HP-UX Installation and Setup Guide*
- ◆ Media kit
  - ❖ *SAN Host 1.0 for Fibre Channel Protocol on HP-UX Release Notes* (this document)
  - ❖ CD-ROM with the `ntap_hpux_fcp_1_0.depot.gz` file.

This file contains the `san lun` utility and other scripts that NetApp supplies with this release (you can also download this file from the NOW site).
  - ❖ License agreement

## Getting the NetApp software from the CD-ROM

To get the NetApp® software from the CD-ROM, complete the following steps.

| Step | Action                                                                                                                                                                                                                                                                                                  |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Insert the CD-ROM into the CD-ROM drive.                                                                                                                                                                                                                                                                |
| 2    | Change to the directory containing the <code>ntap_hpux_fcp_1_0.depot.gz</code> file.                                                                                                                                                                                                                    |
| 3    | <p>Copy the file to a directory on the host, such as the <code>/tmp/hpux</code> directory.</p> <p>For example, you might need to enter commands similar to the following:</p> <pre># mkdir /tmp/hpux # mount /dev/cdrom /mnt/cdrom # cp /mnt/cdrom/ntap_hpux_fcp_1_0.depot.gz /tmp # cd /tmp/hpux</pre> |

# System requirements

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## System requirements

The following table lists the minimum system requirements for using an HP-UX server with a NetApp storage appliance at the time this document was printed.

For the most current and complete system requirements, see the online FCP/iSCSI Configuration Guide at [http://now.netapp.com/NOW/knowledge/docs/san/fcp\\_iscsi\\_config/](http://now.netapp.com/NOW/knowledge/docs/san/fcp_iscsi_config/).

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### Note

NetApp does not provide the host operating system components. If you have questions about setting up these components, see the HP-UX documentation that came with your system.

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| Component       | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host OS         | <ul style="list-style-type: none"> <li>◆ PA-RISC <ul style="list-style-type: none"> <li>❖ HP-UX 11i</li> <li>❖ Gold Base Patches for HP-UX 11i, June 2003</li> <li>❖ Hardware Enablement Patches for HP-UX 11i, June 2003</li> </ul> </li> <li>◆ Itanium® <ul style="list-style-type: none"> <li>❖ HP-UX 11i version 1.6</li> <li>❖ Maintenance Pack Patches for HP-UX 11i, June 2003</li> </ul> </li> <li>◆ Patch PHKL_29094</li> </ul> <p><b>Caution</b> _____</p> <p>Check the HP® site for any warnings about patch PHKL_29094 or upgrades to it. Although this patch is required to work around an HP-UX bug, it has been linked to creating a system panic on 64-bit systems in a high-availability cluster that has volume groups activated in shared mode. For more information, see the HP site.</p> <hr/> <p>If you are not using the native logical volume manager, use patch PHCO_29603. This patch depends on patches PHKL_29611 and PHCO_28693 and is available from the HP-UX resource center (<a href="http://www.itrc.hp.com">http://www.itrc.hp.com</a>).</p> |
| HP-UX platforms | <p>The following HP-UX classes of PCI-based systems:</p> <ul style="list-style-type: none"> <li>◆ A-Class (RP24xx with 1 to 2 CPUs)</li> <li>◆ L-Class (RP54xx with 1 to 4 CPUs)</li> <li>◆ Legacy D Class (d2xx, d3xx)</li> <li>◆ Legacy K Class (k2xx, k3xx, k4xx)</li> <li>◆ N Class (rp74xx with 1 to 4 CPUs)</li> <li>◆ RP84xx with 2 to 16 CPUs</li> <li>◆ RX26xx with 1 to 2 CPUs</li> <li>◆ RX56xx with 4 CPUs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Component                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HBA                                | <p>Native HP-UX:</p> <ul style="list-style-type: none"> <li>◆ PCI A5158A, 1 Gb/s, SC connectors</li> <li>◆ PCI A6795A, 2 Gb/s, LC (SFF) connectors</li> <li>◆ HSC A6684A and A6685A, 1 Gb/s, SC connectors</li> </ul> <p><b>Note</b>_____</p> <p>NetApp does not provide the HP-UX components. If you have any questions about setting up any of the components, see the HP-UX documentation that came with your system.</p>                     |
| Multipath software                 | <p>HP-UX PVLinks</p> <p><b>Note</b>_____</p> <p>PVLinks supports up to eight paths per LUN. You must have PVLinks installed on the host if you have two or more physical paths to the same LUN.</p>                                                                                                                                                                                                                                              |
| Standard failover cluster software | <p>HP-UX's MC/Serviceguard</p> <p><b>Note</b>_____</p> <p>NetApp qualified MC/Serviceguard for two-node clusters only.</p>                                                                                                                                                                                                                                                                                                                       |
| Storage appliances                 | <ul style="list-style-type: none"> <li>◆ NetApp F8xx series</li> <li>◆ NetApp FAS9xx series</li> <li>◆ NetApp FAS270</li> <li>◆ NetApp NearStore® Rxxx</li> </ul> <p><b>Caution</b>_____</p> <p>Only NetApp Fibre Channel storage appliances are supported with this release of the host attach kit. This release does not support mixed SAN storage arrays (other than NetApp storage appliances) on the same host or Fibre Channel switch.</p> |
| Filer OS                           | Data ONTAP™ 6.5 software                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Component | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cable     | <p>50 micron multimode fiber optic cable</p> <p>Purchase the length of optical cable appropriate for your site requirements.</p> <p><b>Note</b>_____</p> <p>The <i>Cable Support for FCP</i> page in the <i>FCP/iSCSI Configuration Guide</i> on the NetApp NOW site contains the most up-to-date information about cabling specifications and requirements. It also has information about ordering cables.</p> <p>_____</p> |

## System compatibility issues

The NetApp installation program checks your system before it installs the software to ensure it meets the minimum system requirements. If your system doesn't meet the minimum requirements, the installation program does not install the SAN Host Attach Kit software.

## Additional information about patch requirements

At the time this document was printed, HP was preparing a newer version of the Patch PHKL\_29094. When this replacement patch is available from the HP-UX site, use it instead of Patch HKL\_29094. NetApp will add information about the new patch to the *FCP/iSCSI Configuration Guide* on the NOW site when the new patch is available.

## Limitations and known problems

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### About this section

This section lists known problems and limitations of the SAN Host 1.0 for Fibre Channel Protocol on HP-UX at the time of this release. For the most up-to-date list of limitations and known problems, see the NetApp NOW Web site.

### Accessing information about bug fixes

From time to time, problems with the SAN Host Attach Kit are listed in an online system called Bugs Online. For a list of fixed bugs, access Bugs Online by completing the following steps.

| Step | Action                                                                                 |
|------|----------------------------------------------------------------------------------------|
| 1    | Use a Web browser to go to <a href="http://now.netapp.com">http://now.netapp.com</a> . |
| 2    | Click Service & Support.                                                               |
| 3    | Click Bugs Online.                                                                     |
| 4    | Enter the Bug ID in the Quick Search text box and click Go.                            |

### Using the FCP Host Attach Kit and the iSCSI Support Kit

For HP-UX, NetApp provides both a SAN Host Attach Kit 1.0 and an iSCSI Support Kit 1.0. You can use both kits on the same host; however, NetApp does not support FCP and iSCSI access to the same LUN.

In addition, if you have both kits installed on the same system, the kit you installed first appears first in your system search path, `/etc/PATH`, and `/etc/MANPATH`. Check these paths to ensure that the toolkit you want to invoke appears first in them.

## Obtaining the latest version of the NetApp software

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### What you need

The SAN Host Attach Kit 1.0 for HP-UX package that you download from the NOW site is the most recent version of the NetApp software. You can check the NOW site to see whether the software available there is more recent than the file you have on CD-ROM. If it is, use it instead of this version of the software.

### Obtaining the software from NOW

To download the software from the NOW site, complete the following steps.

| Step | Action                                                                                                                                                                                                                                                                                                                  |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Log in to the NOW site at <a href="http://now.netapp.com">http://now.netapp.com</a> . In the fields on the right side of the page, complete the following steps:<br><br>1. Enter your user name and password.<br><br>2. From the Select Start Page list box, click Download Software.<br><br>3. Click the Login button. |
| 2    | Go to the SAN (FCP) Host Attach Kit product row of the Software Download table and select HP-UX from the Select Platform drop-down list.                                                                                                                                                                                |
| 3    | Click Go!                                                                                                                                                                                                                                                                                                               |
| 4    | Follow the prompts to reach the Software Download page.                                                                                                                                                                                                                                                                 |

| Step | Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5    | <p>Download the software file to a local directory.</p> <hr/> <p><b>Note</b></p> <p>At the time this document was printed, the software was in a file called <code>ntap_hpux_fcp_1_0.depot.gz</code>.</p> <hr/> <p>If you download the file to a different machine, you must move it to a directory on the HP-UX machine. You can do that using commands similar to the following:</p> <pre># mkdir /tmp/hpux # cd /tmp/hpux # cp /u/hpux/HP-pkgs/ntap_hpux_1_0.depot.gz .</pre> <p>Make sure that you include the period at the end of the command line.</p> |
| 6    | <p>For instructions about extracting and installing this file, see the <i>SAN Host Attach Kit 1.0 for Fibre Channel Protocol on HP-UX Installation and Setup Guide</i>.</p>                                                                                                                                                                                                                                                                                                                                                                                   |

## Obtaining other NetApp SAN information

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### Obtaining additional SAN documentation

NetApp's NOW Web site contains the most current documentation for the SAN Host Attach Kits and Support Kits, SAN filer components, and various interconnect methods. For information about this documentation, see the following:

- ◆ The online FCP/iSCSI Configuration Guide at [http://now.netapp.com/NOW/knowledge/docs/san/fcp\\_iscsi\\_config/](http://now.netapp.com/NOW/knowledge/docs/san/fcp_iscsi_config/)
- ◆ The *SAN Host Attach Kit 1.0 for Fibre Channel Protocol on HP-UX Installation and Setup Guide*
- ◆ The NOW Description Page for this SAN Host Attach Kit

### Locating the NOW Description Page for this kit

The SAN Host 1.0 for Fibre Channel Protocol on HP-UX Description Page contains pointers to additional SAN documentation. To get to this page, complete the following steps.

| Step | Action                                                                                                                                                                                                                                                                                                                                                             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Log in to the NOW site at <a href="http://now.netapp.com">http://now.netapp.com</a> . In the fields on the right side of the page, complete the following steps: <ol style="list-style-type: none"><li>1. Enter your user name and password.</li><li>2. From the Select Start Page list box, click Download Software.</li><li>3. Click the Login button.</li></ol> |
| 2    | Go to the SAN (FCP) Host Attach Kit product row of the Software Download table and select HP-UX from the Select Platform drop-down list.                                                                                                                                                                                                                           |
| 3    | Click Go!                                                                                                                                                                                                                                                                                                                                                          |
| 4    | Follow the prompts to reach the SAN Host 1.0 for Fibre Channel Protocol on HP-UX Description Page.                                                                                                                                                                                                                                                                 |
| 5    | Scroll down the page until you reach the section “ <i>Where to go for Host and Filer Information</i> .”                                                                                                                                                                                                                                                            |

