

Tru64 UNIX New Hardware Delivery Technical Update for NHD-5

November 2002

This online supplement applies to NHD-5 for HP Tru64 UNIX Version 5.1A, and contains information about restrictions and problems that have been discovered since the New Hardware Delivery software for NHD-5 began shipping to customers.

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Installation Notes

The following updates apply to the NHD-5 installation instructions:

- Adding instructions to change ownership of the `/sbin/showfdmn` file after installing NHD-5 (November 15, 2002)
- Adding instructions for rebuilding the kernel after adding supported hardware to a system with NHD-5 already installed (August 1, 2002)
- Updating the instructions for installing NHD-5 on a cluster already running Version 5.1A of the operating system (August 1, 2002)

November 15, 2002: Update to Installation Instructions

After you install NHD-5, perform the following steps before you return your system to production:

1. Log in as `root`.
2. Enter the following command:

```
# chown root /sbin/showfdmn
```

This applies to all NHD-5 installations: whether you are installing from CD-ROM, CD image, or RIS; onto a single system or a cluster; during a Full Installation or using the `nhd_install` script.

Without this step, some AdvFS commands may not work correctly and processes that depend upon these commands may fail. For example, you will not be able back out a Rolling Upgrade done after you installed NHD-5.

August 1, 2002: Rebuilding the Kernel After Adding Supported Hardware

The existing installation instructions in the *New Hardware Delivery Release Notes and Installation Instructions* manual tell you `cd` to install the supported hardware before you install the NHD-5 kit.

If you add supported hardware after NHD-5 is already installed on your system, follow these instructions to include support for the new hardware

in your custom kernel on either the single system or the cluster member where you install the new hardware:

1. At the shell prompt, shut down the system:

```
# shutdown -h now
```

2. Make sure that the value of the `auto_action` console variable is set to `halt`:

```
>>> set auto_action halt
```

3. Power down the system, install the new hardware, and power up the system.

4. At the console prompt, boot the generic kernel:

```
>>> boot -fi genvmunix dqb0
```

5. After the system boots, log in as `root`.

- At the shell prompt, use the `doconfig` utility to rebuild the custom kernel:

```
# doconfig
```

You see messages similar to the following:

```
*** KERNEL CONFIGURATION AND BUILD PROCEDURE ***

Enter a name for the kernel configuration file. [SYSNAME]:
```

- Press Return to accept the default. You see messages similar to the following:

```
A configuration file with the name 'SYSNAME' already exists.
Do you want to replace it? (y/n) [n]:
```

- Enter **y** and press Return. You see messages similar to the following:

```
Saving /sys/conf/SYSNAME as /sys/conf/SYSNAME.bck
```

```
*** KERNEL OPTION SELECTION ***
```

```
Selection   Kernel Option
-----
1           System V Devices
2           NTP V3 Kernel Phase Lock Loop (NTP_TIME)
3           Kernel Breakpoint Debugger (KDEBUG)
4           Packetfilter driver (PACKETFILTER)
5           IP-in-IP Tunneling (IPTUNNEL)
6           IP Version 6 (IPV6)
7           Point-to-Point Protocol (PPP)
8           STREAMS pkt module (PKT)
9           X/Open Transport Interface (XTISO, TIMOD, TIRDWR)
10          Digital Versatile Disk File System (DVDFS)
11          ISO 9660 Compact Disc File System (CDFS)
12          Audit Subsystem
13          ATM UNI 3.0/3.1 ILMI (ATMILMI3X)
14          IP Switching over ATM (ATMIFMP)
15          LAN Emulation over ATM (LANE)
16          Classical IP over ATM (ATMIP)
17          ATM UNI 3.0/3.1 Signalling for SVCs (UNI3X)
18          Asynchronous Transfer Mode (ATM)
19          All of the above
20          None of the above
21          Help
22          Display all options again
-----
```

```
Enter your choices.
```

```
Choices (for example, 1 2 4-6) [20]:
```

- Select the kernel options you want built into your new custom kernel. This should include the same options you were already running on your system. In this example, if you want to select all listed kernel options, enter **19** and press Return.

You see messages similar to the following:

```
You selected the following kernel options:
System V Devices
NTP V3 Kernel Phase Lock Loop (NTP_TIME)
```

```

Kernel Breakpoint Debugger (KDEBUG)
Packetfilter driver (PACKETFILTER)
IP-in-IP Tunneling (IPTUNNEL)
IP Version 6 (IPV6)
Point-to-Point Protocol (PPP)
STREAMS pckt module (PCKT)
X/Open Transport Interface (XTISO, TIMOD, TIRDWR)
Digital Versatile Disk File System (DVDFS)
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ATM UNI 3.0/3.1 ILMI (ATMILMI3X)
IP Switching over ATM (ATMIFMP)
LAN Emulation over ATM (LANE)
Classical IP over ATM (ATMIP)
ATM UNI 3.0/3.1 Signalling for SVCs (UNI3X)
Asynchronous Transfer Mode (ATM)

```

Is that correct? (y/n) [y]:

10. Enter **y** to confirm your selection and press Return. You see the following prompt:

```
Do you want to edit the configuration file? (y/n) [n]:
```

11. Enter **n** and press Return. You see messages similar to the following:

```

*** PERFORMING KERNEL BUILD ***

A log file listing special device files is located in /dev/MAKEDEV.log
Working....Thu Jun 20 14:59:36 EDT 2002
Working....Thu Jun 20 15:01:53 EDT 2002
Working....Thu Jun 20 15:05:32 EDT 2002

The new kernel is /sys/SYSNAME/vmunix

```

12. Copy the new custom kernel.

- On a single system, use the following command to copy the new custom kernel to /vmunix:

```
# cp /sys/SYSNAME/vmunix /vmunix
```

- On cluster member *N* where you installed the hardware, use the following command to copy the new custom kernel to the member-specific directory:

```
# cp /sys/SYSNAME/vmunix /cluster/members/memberN/boot_partition
```

13. Shut down your system:

```
# shutdown -h now
```

14. At the console prompt, boot the lead member with the new custom kernel.

```
>>> boot -fi "vmunix" dqb0
```

August 1, 2002: Update to Cluster Installation Instructions

The procedure to install NHD-5 on a cluster already running Version 5.1A of the operating system is different. Replace the existing procedure in Section 3.3.3.4, *Install Stage*, with the following steps:

Note

Steps 1 through 3 stay the same. Message output is not shown.

1. Make sure that the NHD-5 distribution is still mounted.
2. Change directory to the mounted NHD-5 kit:

```
# cd /mnt
```
3. Use the `nhd_install` script to install the NHD-5 kit on the lead member:

```
# ./nhd_install
```
4. At the shell prompt, shut down the system:

```
# shutdown -h now
```
5. At the console prompt, boot the generic kernel:

```
>>> boot -fi genvmunix dqb0
```
6. After the system boots, log in as `root`.
7. At the shell prompt, use the `doconfig` utility to rebuild the custom kernel:

```
# doconfig
```
8. When you are prompted to name the kernel configuration file, press Return to accept the default.
9. When you are prompted to confirm configuration file replacement, enter `y` and press Return. You see a list of available kernel options.
10. Select the kernel options you want built into your new custom kernel and press Return. This should include the same options you were already running on your system. You see messages listing your selections and a confirmation prompt.
11. Enter `y` to confirm your selection and press Return.
12. When you are prompted to edit the configuration file, enter `n` and press Return. You see progress messages.
13. Copy the new custom kernel to the member-specific directory on the lead member:

```
# cp /sys/SYSNAME/vmunix /cluster/members/member1/boot_partition
```

14. Shut down the lead member:


```
# shutdown -h now
```
15. At the console prompt, boot the lead member with the new custom kernel:


```
>>> boot -fi "vmunix" dqb0
```
16. Log in as root on the lead member.
17. Use the `clu_upgrade` command to check the installation status.

Note

The `clu_upgrade` output incorrectly indicates `patch kit source` rather than `nhd kit source`. The source information is correct, the label is in error.

Documentation Notes

August 1, 2002: Typographical Errors

The *New Hardware Delivery Release Notes and Installation Instructions* manual for NHD-5 contains the following typographical errors:

Location	Error	Correction
Section 1.2	<code>sysattrs_bcm</code>	<code>sys_attrs_bcm</code>
Section 1.3	<code>mksiofs</code>	<code>mkisofs</code>

Comments and Questions

We value your comments and questions on the information in this document. Please mail your comments to us at this address:

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