

HP Tru64 UNIX

Release Notes for Version 5.1B-4

HP Part Number: AA-RVGED-TE
Published: December 2006



© Copyright 2006 Hewlett-Packard Development Company, L.P.

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

UNIX is a registered trademark of The Open Group. Java is a US trademark of Sun Microsystems, Inc. Microsoft, Windows, and Windows NT are U.S. registered trademarks of Microsoft Corporation.

Table of Contents

About This Document.....	7
1 New Features in Version 5.1B-4.....	9
1.1 Operating System Enhancements.....	9
1.1.1 Standards Conformance.....	9
1.1.2 Support Provided for 2007 Changes to U.S. Daylight Savings Time.....	9
1.1.3 BIND Updated to Version 9.2.5	10
1.1.4 sendmail Server Updated to Version 8.13.6	10
1.1.5 NetRAIN over LAG.....	10
1.1.6 Storage Enhancements.....	10
1.1.7 AdvFS Enhancements.....	10
1.1.8 LSM Enhancements.....	11
1.1.9 Additional Enhancements.....	11
1.2 TruCluster Server Enhancements.....	11
1.2.1 Enhanced Distance Cluster Interconnect.....	11
1.2.2 Link Aggregation Extended to Cluster LAN Interconnects	12
1.2.3 Cloning Offers Alternative to No-Roll Patching.....	12
1.2.4 New Cluster Command Sends ping Packets over TCP	12
1.3 Changes to Tru64 UNIX Products.....	12
1.3.1 Associated Products CDs.....	13
1.3.1.1 ADCD Volume 1.....	13
1.3.1.1.1 Advanced Printing Software.....	13
1.3.1.1.2 Firefox Browser.....	14
1.3.1.1.3 DataDirect Drivers.....	14
1.3.1.1.4 OpenLDAP Directory Server.....	14
1.3.1.1.5 LDAP Client Utilities.....	14
1.3.1.1.6 Fortran Run-Time Libraries.....	14
1.3.1.2 APCD Volume 2.....	14
1.3.1.2.1 Extended System V Functionality.....	14
1.3.1.2.2 EMC NetWorker.....	15
1.3.1.2.3 Perl.....	15
1.3.1.2.4 Xemacs.....	15
1.3.2 Advanced Server for Tru64 UNIX.....	15
1.3.3 Internet Express for Tru64 UNIX.....	15
1.4 Packaging Changes.....	16
2 Choosing and Installing the Software You Need.....	17
2.1 Overview of Version 5.1B-4 CDs.....	17
2.2 Installing the Software.....	18

2.3	Accessing the Version 5.1B-4 CD.....	19
2.4	Accessing the Documentation CD.....	19
3	Release Notes.....	21
3.1	Installation Release Notes.....	21
3.1.1	Presence of Some Insight Management Agents Kits Might Require Additional Steps.....	21
3.1.1.1	Obtain the Latest Kit from the Web.....	21
3.1.1.2	Some Insight Management Agents Kits Might Prevent V5.1B-4 Installation.....	21
3.1.1.3	V5.1B-4 Installation Might Overwrite snmpd File.....	23
3.1.2	Stop sendmail Before Installing Kit	23
3.1.3	Run Commands on BIND Systems After Kit Installation.....	24
3.1.4	inetd Daemon Restart Required.....	24
3.1.5	Kit Installation Causes Configuration File Restoration Failure.....	25
3.1.6	Run ipsec Command After Installing Kit.....	25
3.1.7	Update lprsetup.dat File When Using printconfg.....	25
3.1.8	AdvFS Domain Differences Can Affect Version Upgrades.....	25
3.1.9	Possible Errors Seen After Kit Installation.....	27
3.1.10	Message Seen During Reboot Can Be Ignored.....	27
3.2	Kit Removal Release Notes.....	27
3.2.1	Some Patch Kits Cannot Be Removed.....	27
3.2.2	Changes to System Might Need to Be Reversed.....	28
3.2.3	Script Must Be Run When Returning to Prepatched System.....	28
3.3	Cluster-Specific Installation and Removal Release Notes.....	29
3.3.1	Extract dupatch Tools Before Cloning.....	29
3.3.2	dupclone Error Message Can Be Ignored.....	29
3.3.3	Installed CSP Might Affect dupatch Cloning Process.....	30
3.3.4	Migrating a Patched Standalone System to a Cluster.....	30
3.3.5	Disable vfast Utility If Running on Cluster Domains.....	31
3.3.6	Creation of Some MFS File Systems Depends on Version Switch.....	31
3.3.7	Workaround Saves Files to Enable Patch Kit Removal.....	31
3.3.8	Enabling the Version Switch After Installation.....	32
3.3.9	Script Required to Reverse Version Switch.....	32
3.3.10	Restriction on Using No-Roll Procedure to Remove Kit.....	33
3.3.11	Do Not Install Prior NHD Kits on a Patched System.....	33
3.4	General Release Notes.....	33
3.4.1	Tru64 UNIX Rebranding Results in File Changes.....	33
3.4.2	Error on Installing Japanese Advanced Printing Software Subsets.....	33
3.4.3	Authentication Choice Affects sftp Transfer Rate.....	34
3.4.4	Insight Manager Components Dump Core.....	34
3.4.5	Autoloader Firmware Upgrade Changes WWID.....	35
3.4.6	Smart Array Booting Problem Might Require Service Call.....	35
3.4.7	Do Not Use dxarchiver to Verify Bootable Tape.....	35
3.4.8	securenets File Requires localhost Entry.....	35

3.4.9 SIA sialog Use Limitation Required.....	36
4 Getting Help with Version 5.1B-4.....	37
4.1 Accessing Release Notes from Earlier Version 5.1B Kits.....	37
4.2 Accessing Release Notes in the Online Technical Updates Document.....	37
4.3 Tru64 UNIX on the World Wide Web.....	37
Index.....	39

About This Document

This document describes issues to be aware of when you install and run Version 5.1B-4. It also describes significant new and changed features delivered in the HP Tru64 UNIX® Version 5.1B-4 kit and points you to available resources for maintaining the components included in this kit.

Audience

These release notes are for the person who installs the product and for anyone using the product following installation.

Organization

This document is organized as follows:

Chapter 1 “New Features in Version 5.1B-4”	Describes key new features, enhancements, and improvements delivered in Version 5.1B-4
Chapter 2 “Choosing and Installing the Software You Need”	Provides brief overviews of the CDs included in this kit and pointers to information you need to install the software.
Chapter 3 “Release Notes”	Provides information you need to be aware of when installing or removing this kit, as well as descriptions and workarounds for problems you might encounter on running systems.
Chapter 4 “Getting Help with Version 5.1B-4”	Points to resources for keeping your operating system up to date and obtaining the latest information about Tru64 UNIX and the TruCluster Server software.

Typographic Conventions

#	A number sign represents the superuser prompt.
<i>audit(5)</i>	A reference page. The reference page name is <i>audit</i> , and it is located in Section 5.
Command	A command name or qualified command phrase.
User input	Commands and other text that you type.
<i>Variable</i>	The name of a placeholder in a command, function, or other syntax display that you replace with an actual value.

Related Information

The following list includes information sources for installing and using this product:

- Hardware documentation for your system
- *Installation Guide* (available on the Documentation Library CD)
- *Installation Guide — Advanced Topics* (available on the Documentation Library CD)

- *Patch Kit Installation Instructions* (included on the Version 5.1B-4 CD)
- *Patch Summary and Release Notes* (included on the Version 5.1B-4 CD)
- Online reference pages
- *Technical Update* for Version 5.1B or higher for release note information not included in these notes. You can access the *Technical Update* from the following Web site:
<http://h30097.www3.hp.com/docs/updates/V51B/html/index.html>

HP Encourages Your Comments

HP welcomes any comments and suggestions you have on this and other Tru64 UNIX documents.

You can send your comments using the following Web site:

<http://h30097.www3.hp.com/comments.html>

Include the document title, manufacturing part number, and any comments, errors found, or suggestion for improvement you have concerning this document.

1 New Features in Version 5.1B-4

The release notes in this chapter describe changes to the Tru64 UNIX kit for Version 5.1B-4. These include descriptions of key features, enhancements and improvements introduced in this kit.

1.1 Operating System Enhancements

The Tru64 UNIX Version 5.1B-4 release combines several resiliency enhancements and the latest patch kit onto the Version 5.1B-4 CD. The Version 5.1B-4 kit has undergone full product qualification testing as a single entity on multiple configurations and is binary compatible with all previous Version 5 stream releases.

The following sections provide information on some of the new functionality and enhancements included in Tru64 UNIX Version 5.1B-4. For more information and a complete list of the changes included in this release, see the *Patch Summary and Release Notes* document, which is included on the Version 5.1B-4 CD and is available on the Tru64 UNIX documentation Web site.

1.1.1 Standards Conformance

HP Tru64 UNIX continues to comply with open standards and recently updated its certification with The Open Group. The product is now certified as HP Tru64 UNIX. Therefore, the product name in the software has been changed to HP Tru64 UNIX. (See “Tru64 UNIX Rebranding Results in File Changes” (page 33).) A new system attribute has also been added so that the `waitpid` and `poll` system calls conform to UNIX98 standard behavior.

Several commands (such as `awk`, `cp`, `rm`, `uucp`, and `uudecode`) have been updated to conform to the POSIX standard.

A new CAM attribute provides support for asymmetric logical unit access (ALUA), which is part of the SCSI Primary Commands – 3 (SPC-3) standard from the T10 Committee. When enabled, this attribute enables the use of optimal paths for I/O access and can improve performance when used with asymmetric active-active storage controllers, such as the HP StorageWorks 4000/6000/8000 Enterprise Virtual Arrays.

1.1.2 Support Provided for 2007 Changes to U.S. Daylight Savings Time

This kit updates `/etc/zoneinfo` time zone data files to incorporate all changes as of Nov. 1, 2006, in time zones around the world, most notably the US Daylight Savings Time (DST) rule changes that were passed into law on August 8, 2005 and take effect in 2007.

That law moves the start of DST from the first Sunday of April to the second Sunday of March. It moves the return to Standard Time from the last Sunday of October to the

first Sunday of November. These changes affect all US time zones time zones in other North American countries as well.

1.1.3 BIND Updated to Version 9.2.5

This kit updates BIND to Version 9.2.5, a new version from the Internet Software Consortium that represents a major rewrite of nearly all aspects of the underlying BIND architecture. Important features of BIND 9 include DNS Security, IP Version 6, and DNS Protocol Enhancements. Included with this update are several new BIND-related reference pages. For more information on BIND and BIND actions to take when installing this kit, see the online *Patch Summary and Release Notes* document.

1.1.4 sendmail Server Updated to Version 8.13.6

The `sendmail` server has been updated to Version 8.13.6. This version of the `sendmail` server provides advanced features, such as masquerading, virtual domain hosting, restricted relaying, and milter functionality. This update also brings key changes to the `sendmail` configuration file.

1.1.5 NetRAIN over LAG

With this release, it is now possible to run NetRAIN over link aggregation (LAG). Although only one LAG group will be active at a time, the benefit is that it enables the use of NetRAIN with redundant switches and a high bandwidth LAG group.

1.1.6 Storage Enhancements

HP continues to qualify HP StorageWorks products with Tru64 UNIX to ensure continued support and availability of storage products on Tru64 UNIX.

This release includes a wrapper library and HBA-specific library for the Emulex adapter. These libraries provide a host bus adapter (HBA) programming interface for Fibre Channel management applications to gather information about devices in the network in a vendor-neutral way through a set of application programming interfaces (APIs). These APIs are used by the HP Storage Essentials.

Three new I/O subsystem attributes have been added to control path registration during the boot process, which can increase boot speeds for systems with multiple paths to a large number of devices.

This release also includes enhancements to the storage subsystem, such as the following:

- A new EMX attribute that allows you to turn on link level error recovery (LLER) for tape I/O.
- A new cam tape subsystem attribute that enables you to control preferred path behavior for a tape driver.

1.1.7 AdvFS Enhancements

This release improves the Advanced File System (AdvFS) in the following ways:

- Modifications to the AdvFS `rmvol` utility now enable it to accept more than one volume for removal on the command line.
- Enhancements to the AdvFS `vods` utilities have make them more useful when working with AdvFS metadata files. New options have been added and some existing options have been improved. The changes are documented in revised reference pages.
- A new `rc.config` variable, `ADVFS`, lets you control the boot time invocation of the `advfsd` daemon.

1.1.8 LSM Enhancements

The `volwatch` command has been enhanced to improve LSM hot-sparing, which pro-actively replaces plexes that are based on failing storage devices and recovers their data. Now when hot-sparing performs a recovery, it avoids using a plex that it is relocating, unless it has no other choice.

1.1.9 Additional Enhancements

The follow list provides a summary of additional enhancements to the operating system:

- A new `ftpd` daemon option improves login performance.
- Enhancements to the `kdbx` debugger improve serviceability.
- A new `disklabel` command option expands partitions.
- Modifications to the `envmond` daemon let it use EVM events.
- Modifications to the `mountd` daemon allow binding to a specific port number.
- A new `hwmgr` option provides additional information on the EMX adapter.
- New kernel attributes protect against potential ICMP security vulnerabilities.
- The addition of several new tunable attributes to the NFS and RPC subsystems enable you to modify these kernel subsystem configurations using the `sysconfig` command.
- Modifications to the `fsdb` utility enable it to operate on a file system image as well as on a special file.

1.2 TruCluster Server Enhancements

This release provides many enhancements to the TruCluster Server software. The following sections provide brief descriptions of some of these improvements.

1.2.1 Enhanced Distance Cluster Interconnect

This release provides support for Enhanced Distance Clusters. An Enhanced Distance Cluster is a cluster in which the interconnect has been extended up to 100 km using a gigabit LAN Ethernet connection. An Enhanced Distance Cluster provides basic high availability services in the event of the loss of a single component. However, it does not include all of the high-availability services provided by TruCluster Server. See

Appendix A of the *Patch Summary and Release Notes* document for information about setting up and configuring an Enhanced Distance Cluster.

1.2.2 Link Aggregation Extended to Cluster LAN Interconnects

This release provides enhanced support for link aggregation (LAG) by extending it to cluster LAN interconnects. It does this by decreasing the latency associated with time-critical Interconnect Communication Subsystem (ICS) remote procedure calls and by increasing the available bandwidth of the LAN interconnect, thereby enabling increased interconnect throughput.

Latency is improved through multiple active interfaces, decreasing queue sizes (link aggregation), and through the separation of ICS channels that prefer low latency from channels that require high bandwidth. Throughput is improved by using multiple active interfaces, decreasing queue lengths.

The primary goal is to distribute cluster component channel traffic among the interfaces that form part of the link aggregation group.

1.2.3 Cloning Offers Alternative to No-Roll Patching

This release provides a new installation method, generically referred to as cloning, using a new tool, named `dupclone`. The process, which provides an alternative to no-roll patching, consists of two primary steps:

- Creating an exact duplicate of an existing system on an alternate set of disk drives.
- Using `dupclone` to install the patch kit to the alternate disk set. After completion, the system can immediately be rebooted using the alternate disks.

See the *Patch Kit Installation Instructions* document and the new `dupclone(8)` reference page for information about using `dupclone`.

See the section “Cluster-Specific Installation and Removal Release Notes” (page 29) for cloning release notes.

1.2.4 New Cluster Command Sends ping Packets over TCP

A new TruCluster Server command, `clu_ping`, sends ping packets over the TCP layer rather than the Internode Communication Subsystem (ICS) layer on clusters with LAN as the interconnect.

1.3 Changes to Tru64 UNIX Products

The Tru64 UNIX media kit includes the Associated Products CDs, which delivers additional products and components to your Tru64 UNIX environment.

Because many of these products and components are updated more frequently than the Tru64 UNIX operating system, HP makes them available for downloading from the Tru64 UNIX Products Web site when new versions are available:

<http://h30097.www3.hp.com/products.html>

Some of the products in the following list are provided on the Associated Products CDs included in the Tru64 UNIX media kit. However, check the Web site to see if newer versions are provided there. Products marked with an asterisk were formerly included on the Associated Products CDs, but now are available only on the Web:

- Insight Management Agents*
- Printer definition files
- Java™*
- Mozilla*
- Firefox
- Thunderbird
- Secure Web Server*
- sys_check
- WEBES*
- Advanced Server for UNIX (ASU)* (see “Advanced Server for Tru64 UNIX” (page 15))
- DECEvent*
- DataDirect SequeLink* (see “DataDirect Drivers” (page 14))
- Tru64 UNIX to HP-UX ST*
- binaryscan*
- hpuxman*

1.3.1 Associated Products CDs

The following sections provide information on products and components that have been updated and included on Associated Products CDs (APCDs) Volume 1 and Volume 2.

1.3.1.1 ADCD Volume 1

The following products on the APCD Volume 1 have been updated.

1.3.1.1.1 Advanced Printing Software

The Advanced Printing Software has been updated to Version 1.2B. Advanced Printing Software offers full-featured print spooling functions, such as job scheduling, job retention, event notification, multiple levels of access control, print queue failover, and host transparency when used in a TruCluster Server environment. The Advanced Printing Software provides support for a large number of printers.

For more information on Advanced Printing Software and to download the latest version of the printer definition file, see the Tru64 UNIX products Web page:

<http://h30097.www3.hp.com/products.html> .

1.3.1.1.2 Firefox Browser

The Firefox Web browser has been added to APCD Volume 1 for this release. Firefox is a free, open source Web browser that is based on the Mozilla code base. It is small, fast, and easy to use. This version of the open source Firefox software (1.5.0.8) is fully supported by HP under the terms of its software license agreement.

1.3.1.1.3 DataDirect Drivers

This release updates DataDirect Connect for ODBC to Version 5.2. DataDirect Connect provides a comprehensive suite of ODBC drivers for all major databases.

DataDirect SequeLink Version 5.4 is available from the Tru64 UNIX Products Web site. This highly scalable, server-based middleware gives you a complete platform for data connectivity.

1.3.1.1.4 OpenLDAP Directory Server

The OpenLDAP Directory Server included with this release has been updated to Version 2.3.24. The Lightweight Directory Access Protocol (LDAP) is an Internet standard directory service protocol that runs over TCP/IP. LDAP provides access to directories that support the X.500 model. It provides either a standalone directory service or lightweight access to an X.500 directory, unlike DAP, which incurs a heavier resource footprint.

1.3.1.1.5 LDAP Client Utilities

The LDAP client utilities have been updated to Version 2.3.24 for this release. The LDAP utilities are a series of command-line utilities you can use to aid in the administration of the LDAP Authentication Module. All of these tools use the configuration specified in `/etc/ldapcd.conf` for connecting to the directory server. When installed via the LDPUTILS kit, the executable is located in `/usr/sbin/ldap`.

1.3.1.1.6 Fortran Run-Time Libraries

The HP Fortran run-time support libraries have been updated to Version 5.6. These libraries enable you to run previously compiled programs that require these libraries. The libraries support Fortran program function areas, including input and output, intrinsic functions, data formatting, data conversion, miscellaneous math functions, and Fortran bindings to common operating system services.

1.3.1.2 APCD Volume 2

The following products on the APCD Volume 2 have been updated.

1.3.1.2.1 Extended System V Functionality

Extended System V Functionality has been updated with this release. The System V functionality in the operating system has been extended in some existing commands

and library functions to include System V formatted output and support for System V options.

1.3.1.2.2 EMC NetWorker

EMC NetWorker has been updated to 7.3.2. The version of EMC NetWorker included with this kit supports single systems and systems running HP TruCluster Server Version 5.1B. It also includes a trial version of the EMC NetWorker product. For more information:

- See the documentation on the Associated Products Volume 2 CD at */mount_point/NetWorker/doc/singleserver7_3_2.pdf*, where *mount_point* is the name of the directory where you mounted the CD.
- Go to the EMC Web site <http://Powerlink.EMC.com>.

1.3.1.2.3 Perl

Perl has been updated to Version 5.8.7 with this release. Changes include fixes for problems reported on previous versions and a correction that addresses a security vulnerability on integer overflow in the format string function.

1.3.1.2.4 Xemacs

Xemacs has been updated to Version 21.4.17 with this release.

1.3.2 Advanced Server for Tru64 UNIX

Recent enhancements to the Advanced Server for Tru64 UNIX (ASU) include the following:

- The ability to store file and directory access control lists (ACLs) directly in file system metadata.
- The ability to use port 445 for SMB connections.
- Enhanced security in authentication and session security by fully supporting the NTLMv2 protocol.

The ASU provides seamless interoperability between Tru64 UNIX servers, Windows NT® servers, and Microsoft® Windows® clients. Through the ASU software, Tru64 UNIX resources are available to Microsoft users without modification to their software, even allowing administration from Windows PC management utilities.

For additional information about ASU and to download the most current release, visit the ASU Web page:

http://h30097.www3.hp.com/products/adv_server/index.html

1.3.3 Internet Express for Tru64 UNIX

Internet Express for Tru64 UNIX is a collection of popular Internet software combined with administration software developed by HP. It includes all of the Internet applications needed for an AlphaServer system to act as an Internet or intranet server.

Internet Express product provides many features and benefits, such as a collection of Internet software that has been tested and qualified on Tru64 UNIX, a Web-based administration utility to manage Internet services, an Internet Monitor that system administrators can use to monitor the performance of Internet servers, and LDAP Module for System Authentication. All of the components can be configured to run in a TruCluster Server environment.

Internet Express also includes the Secure Web Server (powered by Apache) software developed by the Apache Software Foundation (<http://www.apache.org/>). You can use the Secure Web Server to create and manage a Web site on the Internet or an intranet.

Internet Express has recently been updated to Version 6.6, which updates 24 components and adds the following features:

- MySQL
- Thunderbird
- Seamonkey (as evaluation software)
- SendmailX (as evaluation software)

For more information and to download some of the the software, visit the Internet Express Web site:

<http://h30097.www3.hp.com/internet/osis.htm>

1.4 Packaging Changes

Packaging for Tru64 UNIX 5.1B-4 release has changed as follows:

- The Update Media Kit and Full Media Kit have been combined for the Version 5.1B-4 release. As a result of this change, the following books are no longer included in the kit:
 - *System Administration*
 - *Installation*
 - *Installation: Advanced Topics*
 - *Technical Overview*
 - *Cluster Technical Overview*
 - *Documentation Overview*
 - *Tru64 UNIX V5.1B Release Notes*

This documentation is available on the Documentation CD in this kit and is available on the Web at <http://h30097.www3.hp.com/docs/>. You can also order printed documentation.

- The Open Source Software Collection (OSSC) and the Linux Affinity Tools are no longer provided in the media kit, but are available from the Tru64 UNIX Web site at <http://h30097.www3.hp.com/>.

2 Choosing and Installing the Software You Need

This chapter provides a brief overview of the CDs included in this kit and points you to the information you need to install the software.

2.1 Overview of Version 5.1B-4 CDs

This kit contains six primary CDs. The following list describes the contents of these disks and tells you what you need to know to get your system up and running as quickly as possible:

- Version 5.1B-4 CD

This disk contains the new and improved features and problem fixes. If your system is already running Version 5.1B or higher, installing the software on this disk will bring your operating system to Version 5.1B-4.

This disk updates the TruCluster Server software and internationalization subset to Version 5.1B-4 if those products are installed on your system.

- Tru64 UNIX Version 5.1B Operating System CD

This disk contains the Tru64 UNIX Version 5.1B operating system. You need to install the software on this disk if one of the following conditions exists:

- Your operating system is not already running Tru64 UNIX Version 5.1B or higher.
- You are installing Tru64 UNIX on a new system.

- Associated Products Volumes 1 and 2 CDs

These disks contain software products that run on the Tru64 UNIX operating system. The customer letter included with this kit lists the products on these CDs, and the section in this document titled “Associated Products CDs” describes which products have been updated for this release. Install the products that you want to access on your system or any of the updated products for which you want to run the latest versions.

The TruCluster Server software included on Volume 2 is Version 5.1B. If your system is already running the TruCluster software and you want to add the new features and problem fixes included in Version 5.1B-4, install the software included on the Version 5.1B-4 CD.

- Tru64 UNIX Version 5.1B Documentation Library CD

This disk contains the documents that provide information for general users, system administrators, and programmers using the Tru64 UNIX system. If the Version 5.1B documentation set is already installed, do not install the software on this CD.

The Version 5.1B-4 CD installs all reference pages that have been updated since the Version 5.1B release if the reference page subset is installed on your system. The *Patch Summary and Release Notes* document included on the Version 5.1B-4 CD lists the reference pages that have been revised for this release and in previous Version 5.1B updates.

- New Hardware Delivery-7 (NHD-7)

This disk enables support for new hardware as described in the release notes included on the NHD-7 CD. Because the hardware support included in the NHD-7 kit has not changed since its initial release, you do not have to install the kit included with Version 5.1B-4 if you previously installed NHD-7. See the discussion on installing NHD-7 in “Installing the Software” (page 18) for additional information.

2.2 Installing the Software

The procedure you use to install the components of your kit depends on the current state of your system. The following list can get you started with the most common installation procedures:

- Installing on new, update, or preinstalled operating systems

If this is a new or update (from a pre-Version 5.1B system) installation, or an installation that was preinstalled (called factory installed systems, or FIS), begin by reviewing the Tru64 UNIX *Installation Guide*. See Section 1.2 for FIS systems and Section 1.3 to determine the type of installation that best meets your needs.

To access the *Installation Guide*, install the Tru64 UNIX Documentation Library. The *Installation Guide* is included with the documentation set's System and Network Management Documentation library.

- Installing on a cluster

If you are installing on a cluster, start with Section 1.4 of the Version 5.1B *Installation Guide* for guidance in obtaining the information you need.

- Installing Version 5.1B-4

If you are updating your Version 5.1B system to Version 5.1B-4 and do not need to install the features provided on the New Hardware Delivery 7 CD, see “Accessing the Version 5.1B-4 CD” (page 19).

- Installing associated products

Appendix D of the Tru64 UNIX *Installation Guide* will help you install one or more of the associated products provided on the two Associated Products disks included with the Version 5.1B-4 kit.

- Installing the NHD kit

If you are installing the NHD-7 kit included with Version 5.1B-4, you do not have to separately install Version 5.1B-4 — that kit is installed as part of the NHD-7 installation procedure. See the NHD-7 *Release Notes and Installation Instructions* document included on the NHD-7 CD. You can access that document as follows:

- For HTML format, point your browser to the following file (where *mount_point* is the CD mount point):

```
file:/mount_point/DOC/02NHD712/TITLE.HTM
```

- For PDF format, open the file `DOC/nhd.pdf` using Adobe Acrobat Reader.

2.3 Accessing the Version 5.1B-4 CD

To mount the Version 5.1B-4 CD, follow these steps:

1. Log in as superuser.
2. Insert the CD into the CD drive and enter the following command:

```
# mount -r /dev/disk/cdromNa /mnt
```

In this command, *N* is the unit number of your CD device. If you do not know the unit number of your CD device, the following command will provide that information:

```
# ls /dev/disk/cdrom*
```

3. After the CD is mounted, read the information in the *00-READ-ME-FIRST* file as follows:

```
# cd /mnt/patch_kit
# more 00-READ-ME-FIRST
```

From this directory you can also access the *Patch Kit Installation Instructions* using your browser (`PatchInstallGuide.htm`), Acrobat Reader (`PatchInstallGuide.pdf`), or text reader (`PatchInstallGuide.txt`). This document will guide you through the steps to install this kit.

2.4 Accessing the Documentation CD

To read the Tru64 UNIX documentation on a Tru64 UNIX system, follow these steps:

1. Log in as superuser.
2. Insert the CD into the CD-ROM drive and mount it as follows:

```
# mount /dev/disk/cdromNa /usr/share/doclib/online
```

In this command, N is the unit number of your CD-ROM device. If you do not know the unit number of your CD device, the following command will provide that information:

```
# ls /dev/disk/cdrom*
```

Do not use a different mount point.

3. After the CD is mounted, you can access the documentation with a browser. For example, use the Netscape browser as follows:
 - From a terminal emulator window, start Netscape with the following command:

```
# /usr/bin/X11/netscape &
```
 - From the CDE front panel, click on **Application Manager** → **Desktop _apps** → **Netscape**.
4. After Netscape is running, click on its **Home** button. Netscape will load the Tru64 UNIX home page. Click on the link to the Tru64 UNIX Documentation page.

To read the Tru64 UNIX documentation on a Windows PC or a Macintosh system, insert the CD into the CD drive. If you are using a Windows system (except Windows 3.11, Windows NT 3.51, or earlier) the system should automatically open the Tru64 UNIX Documentation Library page in your default browser. If you are using a Macintosh or an earlier version of Windows or Windows NT, or if your PC does not automatically open the page, follow these steps:

1. When the system has mounted the CD, launch your browser.
2. Go to the browser's **File** menu and choose the **Open file...** item. (Depending on your browser, this item might say **Open...**, **Open File...**, or **Open file in Browser...**).
3. Choose the CD drive. In succession, open the DOCS and HTML folders. Then, in the HTML folder, open the LIBRARY .HTM file. This is your access to the Tru64 UNIX Documentation in HTML and PDF formats.

If you are viewing this documentation on a Windows 95 or higher system, you can use the AltaVista Search CD index that is included. Click on the search icon on the Tru64 UNIX Documentation Library HTML page, and follow the instructions that the browser displays.

3 Release Notes

This chapter provides release notes that are specific to Version 5.1B-4 and the TruCluster Server software product. “Installation Release Notes”, “Kit Removal Release Notes” (page 27), and “Cluster-Specific Installation and Removal Release Notes” (page 29) provide information you need to be aware of when installing or removing Version 5.1B-4. “General Release Notes” (page 33) describes issues you may encounter and, when available, provides workarounds you can use.

If you have not previously patched your Version 5.1B system, including upgrading to Versions 5.1B-1, 5.1B-2, or 5.1B-3, be sure to read the *Patch Summary and Release Notes* document included on the Tru64 UNIX CD, which provides additional release notes you should be aware of. See the *00-READ-ME-FIRST* file on the Version 5.1B-4 CD for information about accessing the *Patch Summary and Release Notes*. See also [Chapter 4](#) (page 37) for information on viewing the *Patch Summary and Release Notes* on the Web.

3.1 Installation Release Notes

The following notes provide important information you need to be aware of before installing the Version 5.1B-4 kit.

3.1.1 Presence of Some Insight Management Agents Kits Might Require Additional Steps

The following installation-related release notes pertain to the Insight Management Agents. See “[Insight Manager Components Dump Core](#)” (page 34) for information about a potential problem with Insight Management Agents that can occur after Version 5.1B-4 is installed.

3.1.1.1 Obtain the Latest Kit from the Web

After installing Version 5.1B-4, HP recommends that you download the most current version of the Insight Management Agents kit available. You can find the kit at the following site:

<http://h30097.www3.hp.com/manage/index.html>

3.1.1.2 Some Insight Management Agents Kits Might Prevent V5.1B-4 Installation

Under certain conditions, you will be prevented from installing Version 5.1B-4 if you are running HP Insight Management Agents Version 3.1 or higher or a version of the kit was previously installed. Those conditions are as follows:

- Your system contains a pre-Version 5.1B-4 kit and the Insight Management Agents kit.

In this case, upgrading to this kit gives the following error message:

```
Patch 26020.00 - SP04 OSFCLINET540 (SSRT3653 SSRT2384 SSRT2275 ...)
./sbin/init.d/snmpd: its origin can not be identified.
```

This patch will not be installed.

- Your system contains Patch Kit 2, Patch Kit 3, or Patch Kit 4 and the Insight Management Agents kit was once installed but has since been removed.

In this case, upgrading to Version 5.1B-4 gives the following error message:

```
Patch 26020.00 - SP04 OSFCLINET540 (SSRT3653 SSRT2384 SSRT2275...)
./etc/pmgrd_iorate.config: does not exist on your system,
however, it is in the inventory of installed subsets.
```

This patch will not be installed.

To work around this problem, run the `dupatch` baseline process before installing Version 5.1B-4. The following steps will guide you through the process:

1. Make a backup copy of the `/sbin/init.d/snmpd` script. For example:

```
# cp /sbin/init.d/snmpd /tmp
```

An alternative to backing up this file, in which you manually modify it, is provided following step 7.

2. Run the Version 5.1B-4 `dupatch` utility and select Option 5, Patch Baseline Analysis/Adjustment. See the *Patch Kit Installation Instructions* for detailed instructions.
3. After Phase 5 of the baseline procedure, answer `y` to the following question:

```
Do you want to enable the installation of any of these patches? [y/n]: y
```

Phase 5 reports patches that do not pass installation applicability tests due to the current state of your system. The installation of Patch 26020.00 was prevented because of changed system files. The `dupatch` utility reports the known information about the files contained in each patch and asks if you want to enable the installation. Answering yes enables `dupatch` to install patches that were prevented from being installed due to unknown files.

4. Install Version 5.1B-4.
5. After the system is running with Version 5.1B-4 installed, stop the `snmpd` and `insightd` daemons as follows:

```
# /sbin/init.d/snmpd stop
# /sbin/init.d/insightd stop
```

6. Replace the `/sbin/init.d/snmpd` script with the one you copied in step 1; for example:

```
# cp /tmp/snmpd /sbin/init.d/snmpd
```

7. Start the `snmpd` and `insightd` daemons as follows:

```
# /sbin/init.d/snmpd start
# /sbin/init.d/insightd start
```

If you did not back up the `/sbin/init.d/snmpd` file in step 1, you can modify it after you install Version 5.1B-4 (step 4) and stop the `snmpd` and `insightd` daemons (step 5) as follows (the XXX represents the revision, such as CPQ360):

1. Edit the line that reads `CPQMIBS=/usr/sbin/cpq_mibs` as follows:

```
CPQMIBS=/var/opt/CPQIMXXX/bin/cpq_mibs
```

2. Edit the line that reads `PMGRD=/usr/sbin/pmgrd` as follows:

```
PMGRD=/var/opt/CPQIMXXX/bin/pmgrd
```

3. Edit the line that reads `$PMGRD > /dev/console 2>&1 &` as follows:

```
$PMGRD ` $RCMGR get PMGRD_FLAGS ` > /dev/console 2>&1 &
```

3.1.1.3 V5.1B-4 Installation Might Overwrite snmpd File

When you install a newer version of the Insight Management Agents kit, the paths to the `cpq_mibs` and `pmgrd` subagents are changed in the `snmpd` script. By installing Version 5.1B-4, the `snmpd` script is replaced by the original version provided in the base version of the Insight Management Agents kit.

Because the use of the `snmpd` script causes problems when you use Insight Manager, you must restore the script to the latest version. To do this, create a backup file of the `snmpd` script, and restore the backup version after installing V5.1B-4. (See step 1 of the workaround described in [“Some Insight Management Agents Kits Might Prevent V5.1B-4 Installation.”](#))

If you did not back up the `snmpd` file before installing V5.1B-4, you can modify the file after the installation, as described in [“Some Insight Management Agents Kits Might Prevent V5.1B-4 Installation.”](#)

3.1.2 Stop sendmail Before Installing Kit

Stop the `sendmail` mailer daemon before installing this kit. Failing to do so can lead to the loss of queued mail. Lost mail cannot be recovered.

To stop the daemon, enter the following command:

```
# /sbin/init.d/sendmail stop
```

3.1.3 Run Commands on BIND Systems After Kit Installation

After installing this kit on a system configured to be BIND server, run the following command:

```
# rcmgr set BIND_SERVERARGS "-c /etc/namedb/named.conf"
```

On a cluster configured to be a BIND server, run the following command:

```
# rcmgr -c set BIND_SERVERARGS "-c /etc/namedb/named.conf"
```

Stop the named daemon and restart it in order to have the new named daemon take effect:

- For standalone systems:

```
# /sbin/init.d/named stop  
# /sbin/init.d/named start
```
- For clusters:

```
# /sbin/init.d/named cluster_stop  
# /sbin/init.d/named start
```

To verify that your configuration files are compatible with Bind 9, run the following commands:

```
# named-checkconf /etc/namedb/named.conf  
# named-checkzone example.com /etc/namedb/hosts.db
```



NOTE: With BIND 9, CNAME entries no longer accept quotes. For example, "hosts-1" IN CNAME A needs to be changed to hosts-1 IN CNAME A.

See “BIND Updated to Version 9.2.5” (page 10) for information about BIND 9.

3.1.4 inetd Daemon Restart Required

Because of changes made to the Internet services daemon introduced in this release, you need to stop and then restart `inetd` after installing or removing this kit. You can do this from the command line or by using the `sysman` application. From the command line, enter the following commands:

```
# /sbin/init.d/inetd stop  
# /sbin/init.d/inetd start
```


Failure to do this results in an older version of `inetd` running on your system.

3.1.5 Kit Installation Causes Configuration File Restoration Failure

After installing this kit, attempts to restore the configuration file (`config.cdf`) saved prior to the installation of this patch will fail due to a checksum error. You can, however, force the operation by using the following `sysman` command:

```
# sysman -clone -apply -force config.cdf
```

For more information, see the note titled *Correction to Configuration Cloning Restrictions* in the “Corrections to Manuals” section of the online Technical Updates document for Version 5.1B. The following link takes you to the Technical Updates document:

<http://h30097.www3.hp.com/docs/updates/V51B/html/index.html>

3.1.6 Run `ipsec` Command After Installing Kit

If you are running IP Security (`ipsec`) on your system, run the following command after installing this kit to determine if any unsafe connections exist:

```
# /usr/sbin/sysman ipsec
```

A warning message alerts you to potential problems.

3.1.7 Update `lprsetup.dat` File When Using `printconfg`

If you use the `/usr/sbin/printconfig` application to configure printer queues, run the following command as root to update the `/etc/lprsetup.dat` file:

```
# /usr/sbin/lprsetup -c update
```

3.1.8 AdvFS Domain Differences Can Affect Version Upgrades

A difference in the structure of Version 5.1A and early 5.1B AdvFS domains versus later V5.1B domains can cause a problem when upgrading to Version 5.1B-4.

This potential problem involves a metadata file, called the RBMT, that exists on each volume of a Version 4 domain.

Although an RBMT is generally only one page long, it can be longer on large volumes or domains that have many files. If an RBMT file was larger than one page under 5.1A or an early 5.1B version and then grows again after a system upgrade to 5.1B-4, the RBMT file can cause any command that tries to activate that domain to fail. This includes mounting filesets from the affected domain.

Following a system upgrade to Version 5.1B-4, the problem can occur after all the filesets in a domain are unmounted. (The problem does not occur as long as the filesets remain mounted.)

The solution is to use the `fixfdmn` utility to correct the problem. For example:

```

# /sbin/advfs/fixfdmn domain_name
fixfdmn: Checking the RBMT.
fixfdmn: Clearing the log on volume /dev/disk/dsk10c.
fixfdmn: Checking the BMT mcell data.
fixfdmn: Checking the deferred delete list.
fixfdmn: Checking the root tag file.
fixfdmn: Checking the tag file(s).
fixfdmn: Checking the mcell nodes.
fixfdmn: Checking the BMT chains.
fixfdmn: Checking the frag file group headers.
fixfdmn: Checking for frag overlaps.
fixfdmn: Checking for BMT mcell orphans.
fixfdmn: Checking for file overlaps.
fixfdmn: Checking the directories.
fixfdmn: Checking the frag file(s).
fixfdmn: Checking the quota files.
fixfdmn: Checking the SBM.
fixfdmn: Completed.

```

You can use this command proactively before the RBMT grows to prevent the problem from occurring, or you can use it after the problem occurs.

In summary, the following domains are not in danger:

- Version 3 domains
- Domains created under Version 5.1B-4
- Domains with RBMT files that are not longer than one page

The `showfile` and `showdmn` commands can provide information about your domains.

Use the `showdmn` command to find out what volumes a domain has. For example:

```

# /sbin/showfdmn domain_name
      Id                Date Created  LogPgs  Version  Domain Name
447350cd.000eba90  Tue May 23 11:13:33 2006     512      4  domain_name

Vol  512-Blks      Free  % Used  Cmode  Rblks  Wblks  Vol Name
1L   71132000      71121632    0%    on    256    256  /dev/disk/dsk4c

```

Use the `showfile` command to determine if an RBMT file has more than one page. To do this, select any mounted fileset from the domain in question, find the mount point for the fileset, and enter the following command. (Note that `.tags/M-6` represents volume 1. Subsequent volumes are incremented by a factor of six, so that volume 2 uses `.tags/M-12`, volume 3 uses `.tags/M-18`, and so on.) For example:

```

# /usr/sbin/showfile mountpoint/.tags/M-6
      Id  Vol  PgSz  Pages  XtntType  Segs  SegSz  I/O  Perf  File
ffffffffffa.0000  1    16      1    simple    **    **    ftx  100%  M-6

```

See the `fixfdmn(8)`, `showfile(8)`, and `showfile(8)` reference pages for information about using these commands.

3.1.9 Possible Errors Seen After Kit Installation

The following problems have been known to occur after Version 5.1B-4 has been installed:

- The Common Data Security Architecture (CDSA), IP Security Protocol (IPsec), or Single Sign-On (SSO) do not work.
- The following error message is displayed during boot time:

```
CSSM_ModuleLoad: CSSM error 4107
```

If you experience these problems, make sure that the following command line has been executed:

```
# /usr/sbin/cdsa/mod_install -f -i -s \  
/usr/lib/cdsa/libt64csp.so -d /usr/lib/cdsa/
```

3.1.10 Message Seen During Reboot Can Be Ignored

The following error message is displayed after you reboot your system the first time after installing Version 5.1B-4:

```
AllowCshrcSourcingWithSubsystems is not valid  
ForcePTYAllocation is not valid  
IdentityFile is not valid  
AuthorizationFile is not valid
```

These messages are caused by a new version of SSH included in Version 5.1B-4. They do not pose a problem and can be ignored.

3.2 Kit Removal Release Notes

The following sections describe actions you have to take if you decided to uninstall Version 5.1B-4. Read each section before running the patch deletion procedure.

3.2.1 Some Patch Kits Cannot Be Removed

You cannot remove a patch kit on systems that have the New Hardware Delivery-7 (NHD-7) kit installed when either of the following conditions exist:

- The patch kit you want to remove was installed before the NHD kit.
For example, if you installed Patch Kit 2 and then installed NHD-7, you cannot remove that patch kit. However, if you later installed Patch Kit 4, you can remove that patch kit.
- The patch kit was installed with NHD-7.
Beginning with the release of Patch Kit 3, patch kits were incorporated into the NHD-7 kits. As a result, when you installed NHD-7, you automatically installed the current patch kit. These patch kits cannot be removed. However, you can

remove any subsequent patch kits. For example, if you installed NHD-7 with Patch Kit 4 and later installed Patch Kit 5, you cannot remove Patch Kit 4, but can remove Patch Kit 5.

If you must remove the patch kit, the only solution is to rebuild your system environment by reinstalling the Version 5.1B operating system and then restoring your system to its state before you installed NHD-7 with the unwanted patch kit.

3.2.2 Changes to System Might Need to Be Reversed

If you made the following changes to your system after installing this patch kit, you have to undo those changes before you can uninstall it:

- If you changed your hardware configuration (for example, by adding a new disk), the system configuration that existed prior to installing this patch kit might not recognize the new devices or might not provide the necessary support for them.
- If you added new cluster members, the new members will not have an older state to revert to if you attempt to uninstall this patch kit.

To uninstall this kit, do the following:

1. Remove all new hardware and new cluster members that you added after installing this kit.
2. Run `dupatch` to uninstall the patch kit.
3. Verify that the patch kit was successfully uninstalled.

You can now add the cluster members you removed and reinstall the hardware you removed, as long as the support for it existed in the prepatched system. You can also reinstall the patch kit.

3.2.3 Script Must Be Run When Returning to Prepatched System

If removing this patch kit restores your system to a prepatched state, you must run the `/etc/dn_fix_dat.sh` script before rebooting your system during the patch-deletion process.

This situation occurs if Version 5.1B-4 is the only Tru64 UNIX patch kit installed on your 5.1B system.



NOTE: Because the no-roll procedure automatically reboots the system after deleting the patches, you cannot use this method to delete this patch kit if doing so returns your system to a prepatched state.

Failing to run this script results in your system being unable to boot normally. If this occurs, do the following:

1. Boot your system in single-user mode:

```
>>> boot -fl s
```

2. Run the `dn_fix_dat.sh` script:

```
# /etc/dn_fix_dat.sh
```

3. Reboot normally.

If you also need to reverse the version switch as described in “Script Required to Reverse Version Switch”, run the `/etc/dn_fix_dat.sh` script after step 5 in that process.

Because the no-roll procedure automatically boots your system, you cannot use that patch kit removal method if doing so would restore your system to a prepatched state



Note:

If during the `dupatch` installation and deletion processes you see a Special Instruction about running the `/etc/dn_fix_dat.sh` script, you should ignore that instruction unless your system meets the requirement described here.

3.3 Cluster-Specific Installation and Removal Release Notes

This section provides information you need to be aware of if you are installing or removing patch kits from a TruCluster Server environment.

3.3.1 Extract dupatch Tools Before Cloning

When beginning a cloning process, first mount the Version 5.1B-4 CD (or extract the kit if downloaded from the Web) to your Version 5.1B-3 system and run the `dupatch` command to install the necessary cloning tools. See the *Patch Kit Installation Instructions* document for information about installing the latest `dupatch` tools.

3.3.2 dupclone Error Message Can Be Ignored

Installing this kit using the `dupclone` process on systems that do not have all of the operating system and TruCluster Server base subsets installed might result in a messages similar to the following to be displayed:

Problem installing:

```
- Tru64_UNIX_V5.1B:  
  Patch_27034.00
```

requires the existence of the following un-installed/un-selected subset(s):

```
- Tru64_UNIX_V5.1B:  
  Patch_27023.00
```

```
- Tru64_UNIX_V5.1B:  
  Patch_27050.00
```

.
.
You can ignore this message. In all cases, the subsets are installed correctly.

See “Cloning Offers Alternative to No-Roll Patching” (page 12) for an introduction to `dupclone`.

3.3.3 Installed CSP Might Affect `dupatch` Cloning Process

If you have installed customer-specific patches (CSPs) on your system, you might see a message similar to the following when installing this kit using the `dupatch` cloning process, at which time the cloning process is terminated:

```
Inspecting 69 patches for possible system conflicts ...
```

```
./usr/bin/ls:
```

```
is installed by Customer Specific Patch (CSP):
```

```
- Tru64_UNIX_V5.1B / Installation Patches:
```

```
  Patch 01682.00 - Fix for dupatch command
```

```
and can not be replaced by this patch. To install this patch,
```

```
ideally, you must first remove the CSP using dupatch.
```

```
Before performing this action, you should contact your
```

```
HP Service Representative to determine if this patch kit
```

```
contains the CSP. If it does not, you may need to obtain a new
```

```
CSP from HP in order to install the patch kit and retain the
```

```
CSP fix. Or, you may use dupatch baselining to enable the
```

```
patch installation.
```

The recommended action is to perform `dupatch` baselining on your existing system to enable the patch installation process and retain the CSP on your system. Removing the CSP (as mentioned in the message) could eliminate the fixes made by that CSP.

After running the baselining process on your existing system, you need to begin the cloning process from the beginning by reduplicating your system on an alternate set of disks and rerunning the `dupatch` cloning process. See the *Patch Kit Installation Instructions* for information about performing baselining and about the patch cloning process.

3.3.4 Migrating a Patched Standalone System to a Cluster

Installing only the base patches on a noncluster system omits various patches (including some security patches) because of dependencies on TruCluster Server patches. Such patches are not needed on standalone systems. However, if the standalone system is then clustered using the `clu_create` command and you attempt to apply the cluster patches, many patches fail with errors because some prerequisite patches failed.

These errors do not necessarily indicate that the patch process has failed, but they are numerous, can be confusing and might obscure genuine errors.

The preferred procedure for adding a standalone system into a cluster is as follows:

1. Reinstall the operating system on the standalone system.
2. Run the `clu_create` command and bring up the standalone system as a cluster node.
3. Apply all base and cluster patches.

3.3.5 Disable vfast Utility If Running on Cluster Domains

If the `vfast` utility is running on the TruCluster domains `cluster_root` and `cluster_var`, deactivate it on the domains before installing or removing this kit. To deactivate `vfast` on the two domains, use the following command:

```
# vfast deactivate cluster_root
# vfast deactivate cluster_var
```

See the *vfast(8)* reference page for more information.

3.3.6 Creation of Some MFS File Systems Depends on Version Switch

During the installation of this kit, MFS file systems that are 4 GB and larger (or 2 GB and larger if a 1024-byte sector size is used) cannot be created until after the version switch is thrown. (See the [Patch Kit Installation Instructions](#) for information about the version switch.)

3.3.7 Workaround Saves Files to Enable Patch Kit Removal

If you upgrade the operating system and install a patch kit within the same roll, the contents of the patch backups are inadvertently removed. The result is that the patches most recently installed cannot be removed because the backups are missing.

The following procedure saves then restores backups so they are available if you later decided to remove the patch kit:

1. Create backup files of the `/backup` and `/doc` directories after the `postinstall` step (`clu_upgrade postinstall`) as follows:

```
# cd /var/adm/patch/backup
# tar cvf /var/adm/patch/BACKUP.tar *
# cd /var/adm/patch/doc
# tar cvf /var/adm/patch/DOC.tar *
```

2. After the `switch` step (`clu_upgrade switch`) untar the files you created in step 1:

```
# cd /var/adm/patch/backup
# tar xvf /var/adm/patch/BACKUP.tar
# cd /var/adm/patch/doc
# tar xvf /var/adm/patch/DOC.tar
```

This restores the files under the following directories:

- /var/adm/patch/backup
- /var/adm/patch/doc

3.3.8 Enabling the Version Switch After Installation

Some patches require you to run the `versw -switch` command to enable the new functions delivered in those patches. (See the *Patch Kit Installation Instructions* for information about version switches.) Enter the command as follows after `dupatch` has completed the installation process:

```
# versw -switch
```

The new functionality is not available until after you reboot your system. You do not have to run the `versw -switch` command, but if you do not, your system cannot access the functionality provided in the version-switch patches.

3.3.9 Script Required to Reverse Version Switch

If you enabled version switches as described in “Enabling the Version Switch After Installation”, you must run the `/usr/sbin/versw_enable_delete` script before attempting to remove Version 5.1B-4. The steps for running this script require a complete cluster or single system shutdown, so choose a time when a shutdown has the least impact on your operations. The following steps describe the procedure:

1. Make sure that all phases of the installation process have been completed.
2. Run the `/usr/sbin/versw_enable_delete` script:

```
# /usr/sbin/versw_enable_delete
```

3. Shut down the entire cluster or the single system.
4. Reboot the entire cluster or the single system.
5. Run `dupatch` on your single system or on a cluster using the rolling upgrade procedure to delete Version 5.1B-4 (as described in the *Patch Kit Installation Instructions*), up to the point where the kernel is rebuilt and the system must be booted.
6. Reboot the single system or each member of the cluster.



NOTE: This step requires that you reboot each cluster member to remove Version 5.1B-4. Because the no-roll procedure automatically reboots the system after deleting the patches, you cannot use that method to remove the kit.

3.3.10 Restriction on Using No-Roll Procedure to Remove Kit

The section titled “Script Must Be Run When Returning to Prepatched System” describes actions you need to take before rebooting your system if removing this kit would restore your system to a pro-patched state. Because the no-roll procedure automatically boots your system, you cannot use that patch kit removal method if doing so would restore your system to a pre-patched state

3.3.11 Do Not Install Prior NHD Kits on a Patched System

Do not install the NHD-5 or NHD-6 kits on your TruCluster Server system if you have installed this patch kit or earlier patch kits. Doing so might cause an incorrect system configuration. The installation code for these new hardware delivery kits does not correctly preserve some cluster subset files.

3.4 General Release Notes

The release notes in this section describe issues you might encounter and, when available, provide workarounds you can use.

3.4.1 Tru64 UNIX Rebranding Results in File Changes

As a consequence of the rebranding of Tru64 UNIX from the Compaq name to HP, the following files have changed:

- `version.abbrev_vendor` from COMPAQ to HP
- `version.banner` from Compaq Tru64 UNIX to HP Tru64 UNIX
- `version.vendor` from Compaq Computer Corporation to Hewlett-Packard Company

The `.mrg..sysconfigtab` file has been modified to incorporate these changes into the generic `sysconfig` subsystem in the `/etc/sysconfigtab` file.

If the rebranding of HP Tru64 UNIX version information impacts any applications or layered products, you can manually change generic system version attributes. See the `sysconfigtab(4)` and `sys_attrs_generic(5)` reference pages for more information on how to modify generic system version attributes.

3.4.2 Error on Installing Japanese Advanced Printing Software Subsets

The following error messages are displayed when you install the IOSJPAPXBASE540 and IOSJPAPXGUI540 subsets onto the system-installed APXBASE122 and APXGUI122 subsets:

```

Loading subset 1 of 2 ...
setld: Error installing Japanese Advanced Printing Software BASE and Client Commands

(IOSJPAPXBASE540)
This subset requires one or more additional subsets to operate correctly.
The following subsets are required:
    "" (APXBASE120)
Please install required subsets first.

Loading subset 2 of 2 ...
setld: Error installing Japanese Advanced Printing Software Graphical User Interface

(IOSJPAPXGUI540)
This subset requires one or more additional subsets to operate correctly.
The following subsets are required:
    "" (APXGUI120)
    "Japanese Advanced Printing Software BASE and Client Commands" (IOSJPAPXBASE540)

Please install required subsets first.

```

These errors are caused by a dependency of the Japanese Advanced Printing Software subsets on the corresponding original Advanced Printing Software subsets APXBASE120 and APXGUI120, despite the changed subset names of APXBASE122 and APXGUI122 in APCD1 for the V5.1B-4 release.

You can avoid these errors by creating `APXBASE120.lk` and `APXGUI120.lk` files in the `/usr/.smdb` directory temporarily after installing APXBASE122 and APXGUI122 as following:

1. Log in as root and enter the following commands:

```

# cd /usr/.smdb.
# touch APXBASE120.lk APXGUI120.lk

```
2. Install the IOSJPAPXBASE540 and IOSJPAPXGUI540 subsets.
3. Remove `APXBASE120.lk` and `APXGUI120.lk`.

3.4.3 Authentication Choice Affects sftp Transfer Rate

The performance of secure FTP (`sftp`) will be always less than `ftp` due to the authentication and encryption involved in `sftp` communication. The transfer rate of `sftp` depends on the type of authentication it employs. You can achieve better transfer rate performance by choosing the Message Authentication Code (MAC) algorithm `hmac-md5` for authentication, but at the cost of security. The default MAC is `hmac-sha1`, which is more secure than `hmac-md5`. See `sftp(1)` for information about secure FTP and `ssh2_config(4)` for information about supported MACs and ciphers.

3.4.4 Insight Manager Components Dump Core

Some Insight Manger components included in Tru64 UNIX Version 5.1B-4, such as `cpq_mibs` and the `config_hmmod` and `sysman_hmmod` daemons, might core dump during reboots.

You can correct this problem by installing the latest version of the Insight Manager, Version 3.6. You can download this version from the HP Insight Management Agents for Tru64 UNIX Web site:

<http://h30097.www3.hp.com/cma/>

If you have not installed Version 3.6 and the Insight Manager processes do not run after you reboot your system, restart them using the Insight Manger startup scripts.

3.4.5 Autoloader Firmware Upgrade Changes WWID

A firmware upgrade to v1.50 or N14r on the 1x8 Autoloader causes the WWID to change. As a result, the existing device associated with the media changer is no longer accessible. For complete details see the Customer Advisory available at:

<http://h30097.www3.hp.com/unix/erp/c00753663.html>

3.4.6 Smart Array Booting Problem Might Require Service Call

If when booting your system you see a message similar to the following, rebooting your system may be able to re-enable the hardware:

```
Smart Array at ciss(1) not responding - disabled.
```

If the reboot fails, call your HP service representative to have the unit repaired.

3.4.7 Do Not Use dxarchiver to Verify Bootable Tape

Do not use `dxarchiver` command to verify a bootable tape. Instead, use the `mt` and `restore` commands as follows:

```
# mt fsf 1
# restore -i <device>
```

The first command skips the first file on the tape.

When preparing for a `btcreate` session, verify the size of the file system to ensure that you have sufficient tape volumes, depending on the maximum storage capacity of your tape device. The `btcreate` command prompts you to load a new tape volume if it runs out of storage space. Label the tapes in sequence.

3.4.8 securenets File Requires localhost Entry

If the `/var/yp/securenets` file is in use as part of NIS, it must contain the following localhost entry:

```
255.255.255.255      127.0.0.1
```

If the `/var/yp/securenets` file is used without a localhost entry, you will see severe delays on logins. See `ypserv(8)` for more information.

3.4.9 SIA sialog Use Limitation Required

The Security Integration Architecture (SIA) `sialog` logging process is intended only for use in debugging SIA problems. It should not be enabled for extended periods of time. Doing so can cause login delays or other problems.

Use the `audit`, not the `sialog` process
, subsystem to monitor authentications on the system.

To disable `sialog` debug logging, delete the `/var/adm/sialog` file. For more information, see the `sialog(4)` and `sia_log(3)` reference pages and the *Tru64 UNIX Security Programming* document.

4 Getting Help with Version 5.1B-4

This chapter points you to resources available to help you keep your operating system up to date and obtain the latest information about Tru64 UNIX and the TruCluster Server software.

4.1 Accessing Release Notes from Earlier Version 5.1B Kits

Because the post-Version 5.1B kits are cumulative, the Version 5.1B-4 kit includes all of the fixes, features, and changes that have been added since the release of Version 5.1B. This information is provided in the *Patch Summary and Release Notes* document for Version 5.1B-4 at:

<http://h30097.www3.hp.com/docs/patch/51B/bl27/HTML/TITLE.HTM>

This document provides a summary of all changes to the operating system and TruCluster Server software delivered in Version 5.1B-4 and prior patch kits.

Patch Summary and Release Notes documents for prior Version 5.1B patch kits are available at:

<http://h30097.www3.hp.com/docs/patch/>

4.2 Accessing Release Notes in the Online Technical Updates Document

In addition to the release notes included in this document and the online *Patch Summary and Release Notes*, HP provides an online document named *Technical Updates for the Version 5.1B and Higher Operating System and Patches* to provide information about issues and problems that have been discovered since the release of the HP Tru64 UNIX Version 5.1B operating system.

You can see this document at:

<http://h30097.www3.hp.com/docs/updates/V51B/html/index.html>

4.3 Tru64 UNIX on the World Wide Web

For access to the latest products and solutions, the most recent QuickSpecs, and other information about the Tru64 UNIX operating system, visit the Tru64 UNIX Web site at:

<http://www.hp.com/go/tru64unix/>

You might also find the following sites useful:

- Operating system and TruCluster Server software patch kits and the NHD kit are available at:

<http://www2.itrc.hp.com/service/patch/mainPage.do>

- For early release patches (ERPs), go to:

<http://h30097.www3.hp.com/unix/EarlyReleasePatch-download.html>

- For patch-related documentation, go to:
<http://h30097.www3.hp.com/docs/patch/>
- To visit our Business Support Center, go to:
<http://h20000.www2.hp.com/bizsupport/TechSupport/Home.jsp>

Index

A

- advanced printing software, 13
 - error with Japanese subsets, 33
- Advanced Server for Tru64 UNIX (*see* ASU)
- AdvFS
 - enhancements to, 10
 - release notes for, 25
- APCD (*see* associated products)
- associated products
 - installing, 19
 - overview of CDs, 17
 - products removed from CDs, 12
 - updated products on CDs, 13
- ASU, 15
 - Web page for, 15
- Autoloader, 35

B

- BIND
 - post-installation step, 24
 - version update, 10

C

- CD
 - associated product updates on, 13
 - for documentation, 17
 - for NHD, 18
 - for TruCluster Server, 17
 - mounting instructions for documentation, 19
 - mounting instructions for Version 5.1B-4, 19
 - overview of disks in media kit, 17
- cloning
 - (*see also* dupclone)
 - CSP problem with, 30
- clu_ping, 12

D

- DadaDirect drivers, 14
- Daylight Savings Time, 9
- disklabel, 11
- documentation
 - accessing on a PC or Macintosh, 20
 - accessing on CD, 19
 - CD for, 17
 - documents removed from kit, 16
 - for installing and using software, 7
 - for installing dupatch tools, 29
 - for NHD, 19
 - NetWorker, 15
 - Patch Summary and Release Notes, 37

- patch-related, 38
- read me file on CD, 21
- Security Programming, 36
- Technical Updates, 25, 37
- URL for prior Patch Summary and Release Notes, 37
- Web site to comment on, 8
- where to order printed, 16

dupatch

- baselining recommended, 22, 30
- installing latest tools for, 29

dupclone

- described, 12
- error message for, 29
- installing tools for, 29
- reference page, 12

dxarchiver

- restriction with bootable tape, 35

E

- /etc/dn_fix_dat.sh, 28
- EMC NetWorker, 15
- EMX, 10
- enhanced distance cluster, 11
- envmond, 11

F

- Firefox browser, 14
- Fortran run-time libraries, 14
- fsdb, 11
- ftpd, 11

H

- HBA, 10
- hwmgr, 11

I

- inetd
 - restart required, 24
- Insight Manager
 - problem during reboot, 34
 - release notes for, 21
- installation (*see* kit installation)
- installing Version 5.1B-4 (*see* kit installation)
- Internet Express
 - overview, 15
 - Web site for, 16
- ipsec
 - action after kit installation, 25

K

- kdbx, 11

kit installation
 accessing instructions for, 19
 documentation for, 18
 for NHD, 19
 release notes for operating system, 21, 27
 release notes for TruCluster Server, 29

kit removal
 release notes for operating system, 27
 release notes for TruCluster Server, 29
 saving backups for, 31

L

LAG
 extended to cluster LAN interconnects, 12
 use with NetRAIN, 10

LDAP client utilities, 14

link aggregation (*see* LAG)

lprsetup.dat
 procedure to update, 25

LSM, 11

M

man pages (*see* reference pages)

media kit
 changes to, 16

moundd, 11

Mozilla (*see* Firefox browser)

N

name change (*see* product name change)

NetRAIN, 10

New Hardware Delivery (*see* NHD)

NHD
 caution when removing, 27
 CD for, 18
 installing, 19
 restriction on clustered system, 33

no-roll procedure
 (*see also* dupclone)
 restriction on using, 33

O

Open Source Software Collection (*see* OSSC)

OpenLDAP Directory Server, 14

operating system
 enhancements to, 9
 kit installation release notes, 27
 kit removal release notes, 21

OSSC, 16

P

Patch Kit Installation Instructions, 29

Patch Summary and Release Notes
 for Version 5.1B-4, 18

Perl, 15

product name change, 9
 (*see also* rebranding of Tru64 UNIX)

R

rebranding of Tru64 UNIX, 33

reference pages
 dupclone, 12

release notes
 (*see also* Patch Summary and Release Notes)
 for NHD, 19

removing kit (*see* kit removal)

S

secure ftp (*see* sftp)

sendmail
 release note for, 23
 version update, 10

sftp, 34

SIA, 36

sialog, 36

standards, 9

storage
 enhancements to, 10

System V, 14

T

Technical Updates document
 URL for, 25

time zone (*see* Daylight Savings Time)

TruCluster Server
 CD for, 17
 enhancements to, 11
 installing and removing, 29

V

/var/yp/securenets, 35

version switch, 29, 31
 enabling after installation, 32
 script to reverse, 32

vfast utility
 release note for, 31

volwatch command, 11

X

Xemacs, 15



* A A - R V G E D - T E *

Printed in the US