Tru64 UNIX 4.0G and TruCluster Server 1.6

Patch Summary and Release Notes for Patch Kit-0003

June 2001

This manual describes the release notes and contents of Patch Kit-0003. It provides any special instructions for installing individual patches.

For information about installing or removing patches, baselining, and general patch management, see the document called *Patch Kit Installation Instructions*.

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About This Manual

This manual contains information specific to Patch Kit-0003 for the Tru64™ UNIX 4.0G operating system and TruCluster™ Server 1.6 software products. It provides lists of the patches contained in the kit and describes information you need to know when installing specific patches.

For information about installing or removing patches, baselining, and general patch management, see the *Patch Kit Installation Instructions*.

Audience

This manual is for the person who installs or removes the patch kit and for anyone who manages patches after they are installed.

Organization

This manual is organized as follows:

Chapter 1   Contains the release notes for this patch kit.

Chapter 2   Summarizes the Tru64 UNIX operating system patches included in the kit.

Chapter 3   Summarizes the TruCluster software patches included in the kit.

Related Documentation

In addition to this manual, you should be familiar with the concepts and mechanisms described in the following Tru64 UNIX and TruCluster Server documents:

- Tru64 UNIX and TruCluster *Patch Kit Installation Instructions*
- Tru64 UNIX *Installation*
- Tru64 UNIX *System Administration*
- TruCluster Server *Software Installation*
- TruCluster Server *Administration*
- `dupatch`(8) Reference Page
- Release-specific installation documentation

Reader's Comments

Compaq welcomes any comments and suggestions you have on this and other Tru64 UNIX manuals.

You can send your comments in the following ways:

- Fax: 603-884-0120 Attn: UBPG Publications, ZK03-3/Y32
- Internet electronic mail: `readers_comment@zk3.dec.com`

  A Reader's Comment form is located on your system in the following location:

  `/usr/doc/readers_comment.txt`

- Mail:

  Compaq Computer Corporation
  UBPG Publications Manager
  ZK03-3/Y32
  110 Spit Brook Road
  Nashua, NH 03062-9987

Please include the following information along with your comments:

- The full title of this document.

- The section numbers and page numbers of the information on which you are commenting.

- The version of Tru64 UNIX or TruCluster products that you are using.

- If known, the type of processor that is running the Tru64 UNIX software.

The Tru64 UNIX Publications group cannot respond to system problems or technical support inquiries. Please address technical questions to your local system vendor or to the appropriate Compaq technical support office. Information provided with the software media explains how to send problem reports to Compaq.

1

Release Notes

This chapter provides information that you must be aware of when working with Tru64 UNIX 4.0G and TruCluster Server 1.6 Patch Kit-0003.

1.1 Patch Process Resources

Compaq provides Web sites to help you with the patching process:

- To obtain the lastest patch kit for your operating system and cluster:

  http://ftp1.support.compaq.com/public/unix/

- To view or print the lastest version of the *Patch Kit Installation Instructions* or the *Patch Summary and Release Notes* for a specific patch kit:

  http://www.tru64unix.compaq.com/faqs/publications/patch/

- To visit Compaq's main support page:

  http://www.compaq.com/support/index.shtml

- To visit the Tru64 UNIX homepage:

  http://www.tru64unix.compaq.com/

1.2 Required Storage Space

The following storage space is required to successfully install this patch kit:

Base Operating System

- Temporary Storage Space

  A total of ~250 MB of storage space is required to `untar` this patch kit. We recommend that this kit not be placed in the `/`, `/usr`, or `/var` file systems because doing so may unduly constrain the available storage space for the patching activity.

- Permanent Storage Space

  Up to ~40 MB of storage space in `/var/adm/patch/backup` is required for archived original files if you choose to install and revert all patches. See the *Patch Kit Installation Instructions* for more information.

  Up to ~41 MB of storage space in `/var/adm/patch` is required for original files if you choose to install and revert all patches. See the *Patch Kit Installation Instructions* for more information.

  Up to ~587 KB of storage space is required in `/var/adm/patch/doc` for patch abstract and README documentation.

  A total of ~168 KB of storage space is needed in `/usr/sbin/dupatch` for the patch management utility.

TruCluster Server

- Temporary Storage Space

  A total of ~250 MB of storage space is required to untar this patch kit. We recommend that this kit not be placed in the `/`, `/usr`, or `/var` file systems

because doing so may unduly constrain the available storage space for the patching activity.

- Permanent Storage Space

  Up to ~54 MB of storage space in `/var/adm/patch/backup` is required for archived original files if you choose to install and revert all patches. See the *Patch Kit Installation Instructions* for more information.

  Up to ~55 MB of storage space in `/var/adm/patch` is required for original files if you choose to install and revert all patches. See the *Patch Kit Installation Instructions* for more information.

  Up to ~868 KB of storage space is required in `/var/adm/patch/doc` for patch abstract and README documentation.

  A total of ~160 KB of storage space is needed in `/usr/sbin/dupatch` for the patch management utility.

1.3 Release Note for TruCluster Server

If you are installing only TCR patches, you MUST rebuild the kernel and reboot the machine for the changes to take effect. If removing only TCR patches, you MUST also rebuild the kernel and reboot the machine for the changes to take effect.

1.4 Release Note for Tru64 UNIX Patch 211.00

This patch contains changes to the `rexecd` reference page.

OPTIONS

  -s Causes rexecd to check for the ptys keyword in the /etc/securettys file
      and to deny execution of the request if it is from root and on a pseudoterminal.

DESCRIPTION

  6. The rexecd server then validates the user as is done at login time
      and, if started with the -s option, verifies that the /etc/securettys
      file is not setup to deny the user. If the authentication was suc-
      cessful, rexecd changes to the user's home directory, and establishes
      the user and group protections for the user. If any of these steps
      fail, the connection is aborted with a diagnostic message returned.

1.5 Release Note for Tru64 UNIX Patches 352.00 and 354.00

This patch delivers version V1.0-032 of the libots3 library. Version 2.0 of the libots3 library is delivered with the Compaq FORTRAN Compiler, Versions 5.3 ECO1 and 5.4, or the Developers Tool Kit (DTK) (OTABASE subset). If libots3 V2.0 is already installed on your system, and you install this patch, you will receive the following informational message:

```
Problem installing:

- Tru64_UNIX_V4.0G / Software Development Environment Patches:

Patch 00XXX.00 - Fix for parallel processing support library

./usr/shlib/libots3.so:  is installed by:

OTABASE212 and can not be replaced by this patch.

This patch will not be installed.
```

To determine what version of libots3 library is installed on your system, execute the following command:

what /usr/shlib/libots3.so

```
libots3.so:

libots3.a V2.0-094 GEM 27 Feb 2001
```

1.6 Release Note for Tru64 UNIX Patch 48.00

If the system configurable parameter `lsm:lsm_V_ROUND_enhanced` is set
(value = 1), the enhanced read round robin policy is activated. This new
policy stores the last block accessed by the previous I/O request. When
returning for another block in round robin (`V_ROUND`) mode, that value is
compared to the current read. If it is within a predefined, user-configurable
value (`lsm:lsm_V_ROUND_enhance_proximity`) then the same plex is used.
Otherwise, the next plex is used as for a normal round robin behavior.

The two new additional tunable parameters are `lsm_V_ROUND_enhanced`
set to 0 by default (`V_ROUND_enhanced` read is not activated), and
`lsm_V_ROUND_enhance_proximity` is set to 512 by default.

Append tuning changes to the `/etc/sysconfigtab` file.. Refer to the Tuning
notes following for a description of the new `lsm_V_ROUND_enhanced` and
`lsm_V_ROUND_enhance_proximity` tunable parameters. These tunable
parameters are configured in the `lsm` stanza. For example:

```
lsm:
lsm_V_ROUND_enhanced = 1
lsm_V_ROUND_enhance_proximity = 1024
```

────────────────────────── **Note** ──────────────────────────

If you already have an `lsm` stanza in your `sysconfigtab` file, then only
add the two `lsm_V_ROUND` entries.

──

Tuning

The purpose of this patch is to increase performance with sequential reads.
This patch introduces a new enhanced round robin mode where the last
block read is now compared to the next block to read and a check is added
to see if last block number-next block number is less than or equal to
`lsm_V_ROUND_enhance_proximity`. If it is, read from the same plex. This is to
attempt to hit the disk cache, and so increase performance.

The relevant tunable parameters are as follows:

`sm_V_ROUND_enhanced` — This variable activates the new enhanced round
robin read policy if it is set to TRUE (1). Otherwise the policy is deactivated.
DEFAULT = 0

`lsm_V_ROUND_enhance_proximity` — This variable indicates the proximity in
which the last read and new read must lie in an attempt to read data from the
disk's cache by reading from the same plex. The variable can be adjusted from 0 to
4096. DEFAULT = 512

1.7 Release Note for Tru64 UNIX Patch 356.00

The following sections contain release notes for Patch 356.00

1.7.1 mountd Reference Page Update

The following is an update for the `mountd` reference page.

SYNOPSIS
    mountd [-d] [-i] [-n] [-s] [-r] [-R] [exportsfile]

```
FLAGS
...
 -r   Have mountd listen for requests on a reserved port.  This is thedefault behavior.

 -R   mountd may listen on an unreserved port.
```

1.7.2 UFS delayed metadata mount option

This new `mount` option allows for disabling synchronous metadata writes on a specified file system. The new mount option is `delayed`.

To maintain the file system's consistency, UFS metadata (such as inode, directory, and indirect blocks) is updated synchronously by default.

Metadata updates are typically performed synchronously to prevent file system corruption after a crash. The trade-off for filesystem integrity, however, is performance. In some cases, such as a file system serving as a cache, performance (faster metadata update) is more important than preserving data consistency across a system crash; for example, files under `/tmp`, or web proxy servers such as Squid.

This has two results. One, multiple updates to one block become only one block write as opposed to multiple writes of the same block with traditional synchronous metadata update. Two, users can experience much better responsiveness when they run metadata-intensive applications because metadata writes will not go out to the disk immediately, while users get their prompt back as soon as the metadata updates are queued.

Do not use the `delayed` option on the `/` or `/usr` file systems. Use the `delayed` option only on file systems that do not need to survive across a system crash.

Usage

To enable the `delayed` option, run:

```
mount -o delayed <device> <mount point>
```

or

```
mount -u -o delayed <mount point>
```

1.8 Release Note for Tru64 UNIX Patch 274.00

This patch provides the X server support for the new 3DLabs Oxygen VX1 PCI graphics card. In order to obtain full support for this graphics card, you must also select Patch 255.00, which is the driver portion of the patch.

A list of supported platforms is available on the following web page:

```
http://www.compaq.com/alphaserver/products/options.html
```

1.9 Release Note for Tru64 UNIX Patch 196.00

This patch contains a solution for the following issue:

Compaq has advised owners of DS10, DS10L, ES40 AlphaServers, and XP900 AlphaStations that Compaq has determined in laboratory testing that there is a theoretical possibility that during read and write operations to the floppy disk on these systems, a single byte of data may be inaccurately read or written without notice to the user or system. The potential for this anomaly exists only if floppy disk read or write operations are attempted while there is extremely heavy traffic on these Alpha systems' internal input/output busses.

Although Compaq has observed the anomaly only in laboratory tests designed to create atypical system stresses, including almost constant use of the floppy disk

drive, Compaq has informed owners of the remote possibility that the anomaly could occur so that they may take precautions to prevent it.

Compaq recommends that the solution be installed by all DS10, DS10L, ES40 AlphaServers, and XP900 AlphaStation customers.

The solution to this issue is also available as an individual, manually installed patch kit named `floppy_CSP_v40g.tar.gz`, available from:

`http://ftp1.support.compaq.com/public/unix/v4.0g`

1.10 Release Note for Tru64 UNIX Patch 255.00

This patch provides support for new graphics cards.

1.10.1 3DLabs Oxygen VXI Graphics Card

This patch provides the driver support for the 3DLabs Oxygen VX1 graphics card. In order to obtain full support for this graphics card, you must also select Patch 274.00, which is the X server portion of the patch.

If you have a system with this new graphics card, you will need to reconfigure and rebuild the kernel after installing this patch.

To reconfigure and rebuild the kernel, follow these steps:

1. Shut down the system:

    # **/usr/sbin/shutdown -h now**

2. Boot genvmunix to single-user mode:

    >>> **boot -fi genvmunix -fl s**

3. After the system boots to single-user mode, mount the file systems, run the `update` command, and activate the swap partition:

    # **sbin/bcheckrc**

    # **/sbin/update**

    # **/sbin/update**

4. Run `doconfig` to create a new kernel configuration file and rebuild the kernel:

    # **/usr/sbin/doconfig**

    _____ **Note** _____

    Do not specify the `-c` option to `doconfig`. If you do, `doconfig` will use the existing kernel configuration file which will not have the appropriate controller entry for the 3DLabs Oxygen VX1 graphics card.

    _____

5. Save the old `/vmunix` file and move the new kernel to `/vmunix`.

6. Shut down the system:

    # **/usr/sbin/shutdown -h now**

7. Boot the new kernel:

    >>> **boot**

If you remove this patch from your system after you have rebuilt the kernel to incorporate support for the 3DLabs Oxygen VX1 graphics card as described you will need to rebuild the kernel again to restore generic VGA graphics support. To do this, follow the steps given previously. The `doconfig` utitlity running on the original, unpatched `genvmunix` will not recognize the 3DLabs Oxygen VX1

graphics card and will include generic VGA graphics support in the resulting kernel.

1.10.2 DEGPA-TA Gigabit Ethernet Device

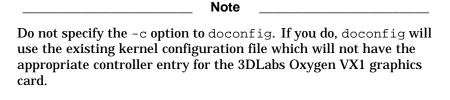This patch provides support for DEGPA-TA (1000BaseT) Gigabit Ethernet device. If you have a system with this new Ethernet device, you will need to reconfigure and rebuild the kernel after installing this patch.

To do this, follow these steps:

1. Shut down the system:

   # **/usr/sbin/shutdown -h now**

2. Boot genvmunix to single-user mode:

   >>> **boot -fi genvmunix -fl s**

3. After the system boots to single-user mode, mount the file systems, run the update command, and activate the swap partition:

   # **/sbin/bcheckrc**

   # **/sbin/update**

   # **/sbin/swapon -a**

4. Run doconfig to create a new kernel configuration file and rebuild the kernel:

   # **/usr/sbin/doconfig**

   _____ **Note** _____

   Do not specify the −c option to doconfig. If you do, doconfig will use the existing kernel configuration file which will not have the appropriate controller entry for the new graphics card.

   _____

5. Save the old /vmunix file and move the new kernel to /vmunix.

6. Shut down the system:

   # **/usr/sbin/shutdown -h now**

7. Boot the new kernel:

   >>> **boot**

If you remove this patch from your system after you have rebuilt the kernel to incorporate support for the new Ethernet card as described previously, you will need to rebuild the kernel. To do this, follow the steps given previously. The doconfig running on the original, unpatched genvmunix will not recognize the new Ethernet driver.

1.11 Release Note for DEC 7000 Upgrades to AlphaServer 8400

This release note concerns systems that were upgraded from DEC 7000 to AlphaServer 8400 that have not installed the DWLPA-AA, DWLPB-AA, or the KFTIA. These are the I/O enhancements for the AlphaServer 8400.

Add the following information to the `/sys/conf/SYSTEMNAME` file:

```
bus          tiop0     at tlsb0    vector    tioperror
bus          pci0      at tiop0    slot  0
callout after_c "../bin/mkdata pci"

bus          isp0      at pci0     slot  0 vector    ispintr
controller     scsi0     at isp0      slot  0
```

You must do this on every reconfiguration of the system.

2

Summary of Base Operating System Patches

This chapter summarizes the base operating system patches included in Patch Kit-0003.

Table 2–1 lists patches that have been updated.

Table 2–2 provides a summary of patches.

Table 2–1: Updated Base Operating System Patches

Patch IDs	Change Summary
Patches 203.00, 242.00, 246.00, 261.00, 268.00, 272.00, 283.00, 285.00, 287.00, 289.00, 291.00, 293.00, 297.00, 305.00, 309.00, 311.00, 313.00, 315.00, 317.00, 319.00, 321.00, 323.00, 325.00, 331.00, 333.00, 337.00, 339.00, 342.00, 344.00, 346.00, 350.00, 352.00, 354.00, 358.00	New
Patches 42.00, 149.00	Superseded by Patch 205.00
Patches 14.00, 81.00, 29.00, 35.00, 91.00, 93.00, 208.00, 209.00	Superseded by Patch 211.00
Patches 82.00, 197.00, 199.00	Superseded by Patch 207.00
Patches 38.00, 76.00	Superseded by Patch 244.00
Patches 11.00, 12.00, 247.00	Superseded by Patch 249.00
Patches 67.00, 130.00, 192.00, 201.00, 250.00, 251.00, 252.00, 253.00	Superseded by Patch 255.00
Patches 116.00, 256.00, 257.00	Superseded by Patch 259.00
Patches 16.00, 24.00, 262.00	Superseded by Patch 264.00
Patch 122.00	Superseded by Patch 266.00
Patch 13.00	Superseded by Patch 270.00
Patch 194.00	Superseded by Patch 274.00
Patch 34.00	Superseded by Patch 276.00
Patches 137.00, 277.00	Superseded by Patch 279.00
Patches 79.00, 138.00, 140.00	Superseded by Patch 281.00
Patch 53.00	Superseded by Patch 295.00
Patch 47.00	Superseded by Patch 299.00
Patch 40.00	Superseded by Patch 307.00
Patch 56.00	Superseded by Patch 335.00
Patches 17.00, 45.00, 71.00, 78.00, 75.00, 176.00, 55.00, 73.00, 15.00, 21.00, 22.00, 30.00, 44.00, 54.00, 66.00, 68.00, 69.00, 108.00, 72.00, 74.00, 141.00, 142.00, 143.00, 110.00, 145.00, 114.00, 20.00, 18.00, 32.00, 41.00, 57.00, 107.00, 212.00, 213.00, 214.00, 215.00, 216.00, 217.00, 218.00, 219.00, 220.00, 221.00, 222.00, 22300, 224.00, 225.00, 226.00, 227.00, 228.00, 229.00, 230.00, 231.00, 232.00, 233.00, 235.00, 236.00, 237.00, 238.00, 240.00, 348.00, 303.00	Superseded by Patch 356.00
Patches 326.00, 327.00, 329.00	Superseded by Patch 358.00

Table 2–2: Summary of Base Operating System Patches

Patch IDs	Abstract
Patch 2.00 OSF445CDE-002	**Patch:** Fix for file permission problem **State:** Existing This patch fixes a problem in which file permissions allow any user to write to the /.dt/Trash/.trashinfo file.
Patch 3.00 OSF445CDE-003	**Patch:** CDE does not re-create list of application groups **State:** Existing This patch fixes a problem where the Common Desktop Environment (CDE) Application Manager did not re-create the list of application groups at login. After customizing the application groups, users would see the old groups instead of the new groups.
Patch 7.00 OSF445X11-001	**Patch:** ccedilla and Ccedilla characters do not display **State:** Existing This patch fixes the Turkish F keyboard problem, where the characters Ccedilla and ccedilla can not be entered from the keyboard directly.
Patch 9.00 OSF445X11-003A	**Patch:** Shared library fix for libDXm **State:** Existing This patch fixes a problem in which the svn widget of libDXm.so creates identical backgrounds and foregrounds.
Patch 10.00 OSF445X11-004	**Patch:** Provides missing compose definitions **State:** Existing This patch provides missing compose definitions when in ISO8859-15-based locales for the scaron, Scaron, zcaron, and Zcaron characters.
Patch 19.00 OSF445-014	**Patch:** Fixes a problem with the find command **State:** Existing This patch fixes a problem with the find command where find fails to show file names that start with a period.
Patch 26.00 OSF445-021	**Patch:** Fix for restore command failure **State:** Existing This patch fixes a problem in which the restore command can fail with the following error: Cannot malloc space for property list
Patch 28.00 OSF445-024A	**Patch:** Adds missing prototype for stime function **State:** Existing This patch adds the missing prototype for the stime() function to <sys/time.h>, allowing C++ programs and other software to properly resolve it.
Patch 31.00 OSF445-028	**Patch:** Fixes a tftpd problem **State:** Existing This patch fixes a tftpd problem when responding to a broadcast read request and it adds the -b option to control whether to respond to any broadcasts.
Patch 33.00 OSF445-003	**Patch:** Panic when running Classical IP over lfa ATM driver **State:** Existing This patch fixes a kernel panic seen when running Classical IP over the lfa ATM driver. This panic would only occur in lockmode 4. If not in lockmode 4, the symptom would be a CPU hang.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 37.00 OSF445-033	**Patch:** quotactl prototype is now POSIX compliant **State:** Existing This patch changes the quotactl prototype in /usr/include/ufs/quota.h to meet POSIX standards.
Patch 39.00 OSF445-035	**Patch:** Fixes problem with NetRAIN devices **State:** Existing This patch fixes a problem of NetRAIN devices failing to come up after the rcinet restart command is entered.
Patch 43.00 OSF445-039	**Patch:** Fixes a kernel memory fault **State:** Existing This patch fixes a kernel memory fault caused by either of the following conditions: • On EV6 platforms, when the debugger is used to view the OT_DEVMAP object mapping memory in I/O space that is mapped to a user process. • When routine pmap_coproc_exit_notify() modifies the pmaps' coproc_tbi function to be 0, a null pointer, while it is being checked by routine pmap_remove_all().
Patch 46.00 OSF445-041	**Patch:** Fix for if.h file **State:** Existing This patch fixes a typo found in the /usr/sys/include/if.h file.
Patch 48.00 OSF445-043	**Patch:** Performance problem for round robin sequential reads **State:** Existing This patch fixes a performance problem for round robin sequential reads on LSM mirrored volumes.
Patch 50.00 OSF445-045	**Patch:** Prevents vold from dumping core **State:** Existing This patch prevents /sbin/vold from dumping core during an execution of a volprint or other query command.
Patch 52.00 OSF445-047	**Patch:** genvmunix does not boot on system with Atalla AXL200 **State:** Existing This patch fixes a problem where genvmunix does not boot on a system with an Atalla AXL200 card installed.
Patch 58.00 OSF445-053	**Patch:** Fixes problem with btcreate command **State:** Existing This patch fixes a problem with btcreate command where default restore fails if the disklabel is different. This patch also fixes a btextract character missing problem and extends the robot media changer sleep time for slower media changers.
Patch 59.00 OSF445-054	**Patch:** Cursor is displayed incorrectly **State:** Existing This patch fixes a problem where the cursor is displayed incorrectly when the image plane is set to 1 and the mask plane is set to 0.
Patch 60.00 OSF445-055	**Patch:** KMF when type of SCSI device dynamically changes **State:** Existing This patch fixes a problem when the type of SCSI device dynamically changes, which can result in a kernel memory fault or memory corruption panic.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 61.00 OSF445-056	**Patch:** Fixes a problem with the psiop driver **State:** Existing Fixes a problem with the psiop driver that causes it to fail when vdump is used. The following error is displayed: vdump : unable to write to device
Patch 62.00 OSF445-057	**Patch:** Provides latest driver for PowerStorm 4D10T card **State:** Existing This patch provides the latest driver for the PowerStorm 4D10T (ELSA Gloria Synergy, SN-PBXGK-BB) graphics card and the latest graphics driver for the PCI To Ethernet/Graphics Combo Adapter (3X-DEPVD-AA).
Patch 63.00 OSF445-059	**Patch:** Fixes a hang in shutdown process of system **State:** Existing This patch fixes a hang in the system shutdown process ("shutdown now") when a device has flow control switched off.
Patch 64.00 OSF445-006	**Patch:** Fixes a kernel memory fault when using ATM **State:** Existing This patch fixes a kernel memory fault when using ATM.
Patch 70.00 OSF445-067	**Patch:** Fix for dbx problems **State:** Existing This patch fixes three problems in dbx: • dbx stack trace is incomplete. • Assignment to a variable would fail after viewing a non-local symbol. • The use of vfork would raise a signal 66.
Patch 77.00 OSF445-074	**Patch:** Fixes SCSI problems **State:** Supersedes patch OSF445-060 (65.00) This patch fixes problems with: • Continuous resets when an I/O command is causing the resets • Read capacity recovery failure • Bad block replacement (BBR) processing • A simple lock panic
Patch 80.00 OSF445-071	**Patch:** Fix for memx command **State:** Existing This patch fixes a problem with the memx command where it improperly handles memory sizes of 2 GB or greater.
Patch 84.00 OSF445X11-003B	**Patch:** Static library fix for libDXm **State:** Existing This patch fixes a problem in which the svn widget of libDXm.so creates identical backgrounds and foregrounds.
Patch 85.00 OSF445X11-005B	**Patch:** Fix for X server interaction with X font server **State:** Existing This patch fixes various problems with the X font server and with the X server's interaction with X font servers.
Patch 87.00 OSF445-024B	**Patch:** C++ functions do not properly resolve stime function **State:** Existing This patch adds the missing prototype for the stime() function to <sys/time.h>, allowing C++ programs and other software to properly resolve it.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 90.00 OSF445-087	**Patch:** Corrects problems in the lat driver **State:** New This patch corrects problems in the lat driver which caused improper processing of the ioctl TCSBRK, as well as the generation of spurious characters when the libc routine tcdrain() was used.
Patch 95.00 OSF445-112B	**Patch:** Addresses performance and scalability issues **State:** New This patch addresses performance and scalability issues for highly contended threaded applications running on EV6 SMP machines.
Patch 97.00 OSF445-118	**Patch:** Assembler generates incorrect error messages **State:** Supersedes patch OSF445-044 (49.00) This patch corrects the following: • Resolves a problem that caused the assembler to flag any identifiers whose length exceeded 1024 characters with an assembly-time error. With this patch, such identifiers are now accepted. • Corrects a problem whereby the assembler would generate incorrect error messages for source programs, which produces a mix of hand-coded and assembler-generated relocation operands.
Patch 99.00 OSF445-089	**Patch:** Fix for mailx **State:** New This patch corrects the problem so mailx(1) will work correctly if the -r and -s flags are used together.
Patch 101.00 OSF445CDE-004A	**Patch:** Desktop applications fail if CDE is not initialized **State:** Supersedes patch OSF445CDE-001A (1.00) This patch corrects the following: • Fixes a problem in which dtfile ICDE COSE tool does not work when TMPDIR is defined as /ldata/disk_local/tmp. The dtfile tool returns the following error: /ldata/disk_local/tmp/sdtdbcache_AAAaadmma: Cross-device link /ldata/disk_local/tmp/sdtdbcache_BAAaadmma: Cross-device link Floating exception (core dumped) • Fixes a problem with the Common Desktop Environment (CDE) in which some desktop applications will fail if CDE is not initialized. The error which appears in the users home .dt/errorlog file is as follows: Desktop Not Initialized: Could not createAction/Datatypes database.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 103.00 OSF445CDE-004B	**Patch:** Fix for Desktop Not Initialized error **State:** Supersedes patch OSF445CDE-001B (83.00) This patch corrects the following: • Fixes a problem in which dtfile ICDE COSE tool does not work when TMPDIR is defined as /ldata/disk_local/tmp. The dtfile tool returns the following error: /ldata/disk_local/tmp/sdtdbcache_AAAaadmma: Cross-device link /ldata/disk_local/tmp/sdtdbcache_BAAaadmma: Cross-device link Floating exception (core dumped) • Fixes a problem with the Common Desktop Environment (CDE) in which some desktop applications will fail if CDE is not initialized. The error which appears in the users home .dt/errorlog file is as follows: Desktop Not Initialized: Could not createAction/Datatypes database.
Patch 105.00 OSF445-098	**Patch:** Prevents not currently mounted warning messages **State:** New This patch prevents "not currently mounted" warning messages from being displayed for filesystems the user did not request to umount.
Patch 112.00 OSF445-091	**Patch:** IDE devices may cause the system to panic or hang **State:** New This patch corrects recognition problems with some models of IDE CD-ROM devices and removable disk devices during system startup. Some IDE devices may cause the system to hang or panic during startup and others may not be recognized.
Patch 118.00 OSF445X11-009A	**Patch:** Fixes a memory leak in Xt **State:** New This patch fixes a memory leak in the X Window System's X Toolkit library (Xt) that could occur when creating and destroying Motif List, Text, and TextField widgets.
Patch 120.00 OSF445X11-009B	**Patch:** Memory leak when creating and destroying widgets **State:** New This patch fixes a memory leak in the X Window System's X Toolkit library (Xt) that could occur when creating and destroying Motif List, Text, and TextField widgets.
Patch 124.00 OSF445-117	**Patch:** Build failure on AlphaServer DS20 and ES40 systems **State:** New This patch fixes a problem that caused a kernel build failure when installing or deleting dupatch. This problem occurred on Compaq AlphaServer DS20 and ES40 systems.
Patch 126.00 OSF445X11-008A	**Patch:** Memory leak occurs in Xlib **State:** Supersedes patch OSF445X11-002 (8.00) This patch corrects the following: • Fixes a problem in which some 8-bit characters cannot be entered directly from the keyboard when the Caps Lock setting is on. • Fixes two memory leaks in the X Window System's X library (Xlib) that can occur when creating and destroying Motif List, Text, and TextField widgets.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 128.00 OSF445X11-008B	**Patch:** Fix for X Window library memory leak **State:** New This patch fixes two memory leaks in the X Window System's X library (Xlib) that can occur when creating and destroying Motif List, Text, and TextField widgets.
Patch 132.00 OSF445CDE-006	**Patch:** dtlogin core dumps servicing srequests from XDMCP **State:** New This patch fixes a problem where the Common Desktop Environment (CDE) login daemon, dtlogin, core dumps occasionally when servicing requests from XDMCP clients such as X terminals or PCs running X servers.
Patch 135.00 OSF445-099	**Patch:** ATM LAN emulation fails using ATM Meteor 351 board **State:** New. Supersedes patch OFSF445-097 (133.00) This patch corrects the following: • When running ATM LAN Emulation, using more than four ATM NetRAIN interfaces can result in recursive calls, causing a "kernel stack not valid" halt. • Fixes a problem of ATM LAN emulation failing to come up when using the ATM Meteor 351 board.
Patch 147.00 OSF445-058B	**Patch:** Fixes reply values for NFS writes **State:** New This patch fixes reply values for NFS writes which were causing protocol violations.
Patch 151.00 OSF445-114	**Patch:** Fix for collect command **State:** New This patch fixes several problems with the collect command, and it adds sysloging when collect suspends, resumes, or receives a signal.
Patch 153.00 OSF445X11-010A	**Patch:** Fix for libXm memory leak **State:** New This patch fixes various memory leaks in the Motif library (libXm) that could occur when creating and destroying Motif List, Text, and TextField widgets.
Patch 155.00 OSF445X11-010B	**Patch:** Memory leak occurs in Motif library **State:** New This patch fixes various memory leaks in the Motif library (libXm) that could occur when creating and destroying Motif List, Text, and TextField widgets.
Patch 157.00 OSF445-105	**Patch:** Bootlink fails on Alphastations 600, 600A, 500/400 **State:** New This patch fixes a problem in which the bootlink can fail on Alphastations 600, 600A, 500/400.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 159.00
OSF445DX-004
	Patch: Fixes incorrect date and time stamp on new directory
	State: Supersedes patches OSF445DX-001 (4.00), OSF445DX-002 (5.00), OSF445DX-003 (6.00)
	
	This patch corrects the following:
	
	• Fixes a problem in which the dxaccounts application does not allow users to be added to groups with Group ID lower than the default minimum specified in the General Options dialog.
	
	• Fixes the following cli/dxaccounts problems:
	
	  – The error message displayed when the Account Manager fails to start due to the detection of an Account Manager lock file (/etc/.AM_is_running) is not clear.
	
	  – The command uermod -D does not display the Expire date when it is set.
	
	  – Enabling to change root's login/uid through cli/dxaccounts utilities.
	
	• Fixes a problem in which dxaccounts does not allow the system manager to add NIS users when the system is running enhanced security.
	
	• Fixes a problem where the new home directory for a new user ID is created with the date and time stamp of the /usr/skel directory.

Patch 161.00 OSF445-088	**Patch:** Fix for bcache problem **State:** Supersedes patch OSF445-018 (23.00) This patch corrects the following: • Corrects a problem in which the perrmask register on Tsunami systems can be overwritten. • Fixes a problem that caused an incorrect bcache size to be returned to the kernel from the HWRPB. This problem occurred on Professional Workstation 900 and 1000 systems and AlphaServer DS10, DS20, DS20E, ES40, GS80, GS160, and GS320 systems.
Patch 164.00 OSF445-093A	**Patch:** Maximum Login Interval field ignored **State:** New. Supersedes patches OSF445-022A (27.00), OSF445-032A (36.00), OSF445-084A (162.00) This patch corrects the following: • Corrects a problem of the rsh command displaying a warning message instead of the rsh command output when C2 security is configured. • Fixes a problem with logins in a DCE/C2 environment. The user could encounter an error "Bad priority setting" if there is a u_priority setting used in /etc/auth/system/default file. • Fixes a problem when a system is configured with DECnet, C2, and NIS. When invoking edauth(8) <user_name>, the error "Must be on NIS master server to update entry for <user_name>" is returned. • Fixes a problem for Enhanced Security configurations, where the Maximum Login Interval (u_max_login_intvl) field was being ignored for account templates.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 167.00 OSF445-093B	**Patch:** Fix for Enhanced Security problem **State:** Supersedes patches OSF445-022B (86.00), OSF445-032B (88.00), OSF445-084B (165.00) This patch corrects the following: • Corrects a problem of the rsh command displaying a warning message instead of the rsh command output when C2 security is configured. • Fixes a problem with logins in a DCE/C2 environment. The user could encounter an error "Bad priority setting" if there is a u_priority setting used in the /etc/auth/system/default file. • Fixes a problem when a system is configured with DECnet, C2 and NIS. When invoking edauth(8) <user_name>, the error "Must be on NIS master server to update entry for <user_name>" is returned. • Fixes a problem for Enhanced Security configurations, where the Maximum Login Interval (u_max_login_intvl) field was being ignored for account templates.
Patch 169.00 OSF445-061	**Patch:** Fixes a problem with advscan **State:** New This patch fixes a problem where advscan -a -g does not display bootable partitions properly.
Patch 172.00 OSF445-096	**Patch:** Fix for mv command **State:** New. Supersedes patches OSF445-020 (25.00), OSF445-104 (170.00) This patch corrects the following problems with the mv command: • An invalid error message when attempting to move files in which the source name is the same as the destination name. • When using mv -i to rename a symlink pointing to a file on a different filesystem owned by a different user, this results in the prompt: Ownership of y will change. Continue? • When moving a file from one file system to another, the mv command will copy the file rather than using the rename() system call, which can result in file loss. • Corrects the problem with the mv(1) command deleting files in the directory when the user moves a directory to itself.
Patch 174.00 OSF445-051	**Patch:** Fix for salvage utility **State:** New This patch corrects the following problems: • Fixes two infinite loops that could make salvage run forever. • Removes garbage characters from symlink recovery in salvage.
Patch 178.00 OSF445-102	**Patch:** Fix for what command **State:** New This patch fixes a problem in the what command, where it was unable to process more than one input file at once.
Patch 180.00 OSF445CDE-005	**Patch:** Fixes a dtmail problem **State:** New This patch fixes a dtmail problem in which a From line with quotes in it incorrectly finds the date of the mail message. This error is displayed on the main screen under the header Date and Time and shows up as Dec. 31 or as a blank field.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 182.00 OSF445-086	**Patch:** Incorrect encoding for SysV Open call audit parameter **State:** New This patch fixes a problem where encoding for the SysV Open call audit parameter was incorrect. This could cause a system panic.
Patch 184.00 OSF445CDE-007	**Patch:** dtwm hangs on system with multiple displays **State:** New This patch fixes a problem in which the Window Manager (dtwm) intermittently hangs on a system which uses multiple displays.
Patch 186.00 OSF445-085	**Patch:** Fix for cron problems **State:** Supersedes patch OSF445-046 (51.00) This patch corrects the following: • Fixes a problem where some crontab jobs would run multiple times in the same minute. • The cron daemon does intensive logging and fills up the disk. • Multiple cron daemons continue to run and consume system resources due to the fact that, after a user is deleted from the system, there are still jobs running on the user's behalf.
Patch 188.00 OSF445-092	**Patch:** Fixes several problems in the tapex utility **State:** New This patch fixes the following problems: • Accuracy of performance tests has been improved. • The tapex exit status has been corrected. • The tapex utility was fixed to determine eom status in Command Timeout Test and exit with non-0 status to indicate failure.
Patch 190.00 OSF445DX-005	**Patch:** Fix for diskconfig startup error message **State:** New This patch fixes a problem that was causing diskconfig to issue the error message "can't read tminor: no such variable" upon startup.
Patch 196.00 OSF445-135	**Patch:** Fix for floppy disk **State:** New Compaq has determined in laboratory testing that there is a theoretical possibility that during read and write operations to the floppy disk on DS10, DS10L and ES40 AlphaServers and VS10 and XP900 AlphaStations, a single byte of data may be inaccurately read or written without notice to the user or system. The potential for this anomaly exists only if floppy data read and write operations are attempted while there is extremely heavy traffic on these Alpha systems' internal input/output busses. Although Compaq has observed the anomaly only in laboratory tests designed to create atypical system stresses, including almost constant use of the floppy disk drive, we are supplying this patch to address this potential issue.
Patch 203.00 OSF445-134	**Patch:** fixso command causes segmentation fault **State:** New This patch fixes a problem with the /usr/ucb/fixso command that can cause a segmentation fault.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 205.00 OSF445-177	**Patch:** Fix for vdump and vrestore commands **State:** Supersedes patches OSF445-038 (42.00), OSF445-090 (149.00)

This patch fixes the following vrestore problems:

- A previous patch caused incomplete restores.

- A warning message is displayed when the path for the first file in a group of hardlinks is created without using original protection codes and property lists.

- A warning message is displayed and vrestore aborts if it fails to malloc space for a property list.

- A message that had been inserted at the end of the message file had the wrong message category (this could cause messaging confusion).

- An uninitialized variable in the code that restores property lists could cause malloc failures, memory faults, "error setting extended attributes", and infinite loops using the -l option

- Corrupted property list information could cause an infinite loop.

This patch fixes the following problems with the vdump command:

- Fixes a problem where the vdump command will sometimes store symbolic link files as directories in the vdump archive.

- Failed to flag compressed extended attributes records that are split across a vdump BLOCK boundary.

- Overrides the -D option when source path describes a root fileset Note: If you want to backup quota files, you must not use the -D option.

- Corrects "Rewinding" message to avoid a segfault with Internationalized messages.

This patch fixes the following problems with the vrestore command:

- Fails to properly handle extended attributes records in compressed archives. This results in malloc failures, proplist inconsistencies, program abort, program crashes due to segfault or invalid memory access, and the display of the error message "error setting extended attributes".

- Fails to set extended attributes due to confusion over selective restore of the file or directory associated. Also results in the display of the error message "error setting extended attributes".

- Selective restore of hardlinked files is incomplete when they exist in different directories (fails to create directory for second occurrence of file with same inode number).

- The -Q option is added to vrestore to allow the user to request ignoring the quota files (thus avoiding the time it takes to process them).

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 207.00 OSF445-206	**Patch:** Fixes kernel memory fault in GS-series platforms **State:** Supersedes patches OSF445-080 (82.00), OSF445-129 (197.00), OSF445-127 (199.00) This patch corrects the following: • Provides enhancements for the GS-series platforms. The header information in Hierarchical Switch machine checks was incorrect. The early revisions of PCA hardware do not allow Window 3 DAC for DMA. • Fixes a problem on AlphaServer GS80, GS160, and GS320 systems where under specific set of unlikely circumstances it is possible for revision 4 PCA hardware to falsely report PCI hung bus errors. This will cause a uncorrectable hardware machine check and operating system panic. This patch must be installed if the hardware configuration includes any revision 4 PCA (IOP to PCI bus) adpaters. • Fixes a problem on the Alphaserver GS80, GS160, and GS320 platforms where the system will issue an environmental warning and shut itself down when it reaches a critical temperature, even though this temperature is safe for the power supply. • Fixes a kernel memory fault in GS series systems which have mixed revision PCI adapters.
Patch 211.00 OSF445-138	**Patch:** Security (SSRT1-19U, SSRT0689U) **State:** Supersedes patches OSF445-001 (14.00), OSF445-023 (81.00), OSF445-025 (29.00), OSF445-031 (35.00), OSF445-112A (91.00), OSF445-108 (93.00), OSF445-165 (208.00), OSF445-170 (209.00) This patch corrects the following: • Adds a NULL to the resulting string output of swprintf() calls. • Fixes a problem in libc that affects debugger tracebacks of code containing split procedures. • Fixes a problem where gmtime() was erroneously setting the tzname[0] array. • Increases the length of the user names for rsh and rexec to allow for NT interoperabilty. • Addresses performance and scalability issues for highly contended threaded applications running on EV6 SMP machines. • Fixes a problem for those applications that assume that initial allocations of memory from the C run-time library's malloc() function will return only zero-filled memory. • Fixes a problem that might occur with threaded applications linked against older versions of DECthreads. The DECthreads internal symbol __pthreads_legacy_init_routine may show up as an unresolved symbol at load time when those applications are run on systems on which a newer version of DECthreads has been installed. • A potential security vulnerability has been discovered, where under certain circumstances, system integrity may be compromised. This may be in the form of improper file or privilege management. Compaq has corrected this potential vulnerability.
Patch 242.00 OSF445-173B	**Patch:** Supports temporary data logging on mount point **State:** New This patch provides support for activating temporary data logging on a mount point.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 244.00 OSF445-155	**Patch:** Corrects problems with grep -w command **State:** Supersedes patches OSF445-034 (38.00), OSF445-078 (76.00) This patch corrects the following: • When the fgrep command is used with the -s flag all output is suppressed. • The command fgrep -f searchlist gets the following error message: wordlist too large if the searchlist is too long. In the test case it was 101.00 entries. • The command fgrep -f searchlist displays datafiles verbatim if the searchlist has blank lines. • Fixes a problem in which the grep command with the -w switch does not work as documented.
Patch 246.00 OSF445-122	**Patch:** Fix for quotacheck -v command **State:** New This patch fixes a bug where quotacheck -v \<filestystem> will report that it has fixed some quotas. If you keep running the command, it will keep reporting the exact same fixes.
Patch 249.00 OSF445X11-013	**Patch:** Fixes a memory leak in the X server **State:** Supersedes patches OSF445X11-005A (11.00), OSF445X11-006 (12.00), OSF445X11-018 (247.00) This patch corrects the following: • Fixes various problems with the X font server and with the X server's interaction with X font servers. • Fixes a problem where the X server could core dump or get unaligned access errors when clients used the Multi-Buffering extension. This patch fixes a problem where the X server does not display windows properly for the 128th and subsequent clients. • Fixes a memory leak in the X server that could occur when a client repeatedly created and destroyed buffers for the X Window System Multibuffering Extension (XmbufCreateBuffers/XmbufDestroyBuffers).

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 255.00 OSF445-163	**Patch:** ee driver problems for DE60x Ethernet cards **State:** Supersedes patches OSF445-063 (67.00), OSF445-111 (130.00), OSF445-113 (192.00), OSF445-109 (201.00), OSF445-164 (250.00), OSF445-202 (251.00), OSF445-174 (252.00), OSF445-183 (253.00)

This patch corrects the following:

- Updates the emx Fiber Channel driver to Revision 1.22, correcting a successive command timeout problem. This error would cause degraded performance.

- This patch fixes the following DE600/DE602 10/100 Ethernet adapters problems:

  – The primary CPU may appear hung on networks where switches send "Flow Control Pause" frames if they become overloaded.

  – Transmit timeout messages appear in the console log due to the driver timing out a frame.

  – Provides the device driver support for 3DLabs Oxygen VX1 graphics adapter.

  – Provides support for the DEGPA-TA (1000BaseT) Gigabit Ethernet device.

- Fixes a "u_anon_free: page busy" panic.

- Fixes a problem with the driver for Gigabit Ethernet adapters (DEGPA-FA and DEGPA-TA) which prevented its use in a NetRAIN (Redundant Array of Independent Network Adapters) set.

- Fixes an issue with lightweight wiring of pages and shared memory regions.

- Fixes a problem where cascaded switches can hang the system at failover time.

- Addresses two problems with the ee driver for DE60x Ethernet cards. These problems affect all Tru64 systems containing ee cards.

  – Fixes a race condition where the card could stop receiving packets from the network under rare circumstances.

  – Fixes for the lan_config user options -x and -s.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 259.00 OSF445-130	**Patch:** Fix for tar -F command **State:** Supersedes patches OSF445-094 (116.00), OSF445-180 (256.00), OSF445-128 (257.00) This patch corrects the following: • Fixes a problem with the tar command. Corruption occurs when restoring a file system that contains more than two hard links to a file. • Corrects pax/tar/cpio to properly extract explicitly specified files. When an archive contained a file with extended attributes and a different file (occurring later in the archive) was specified to be extracted, improper buffer pointer management resulted in the following display (the example uses tar): tar: /dev/nrmt0h : This doesn't look like a tar archive tar: /dev/nrmt0h : Skipping to next file... tar: Memory allocation failed for extended data while reading : Not enough space The directory option was similarly affected. In this case the information for the specified file was not reported. • Fixes a problem with the tar and pax programs. These programs incorrectly append files to an existing archive and cause the file to become corrupt. • Fixes a problem where the tar -F (Fasttar) option ignores files named err but doesn't ignore files named errs and directories named SCCS and RCS.
Patch 261.00 OSF445DX-008	**Patch:** Updates Netscape Communicator to version 4.76 **State:** New This patch updates Netscape Communicator to version 4.76 to fix missing default MIME types in Netscape Communicator 4.75.
Patch 264.00 OSF445-181	**Patch:** ksh problem in multi-byte Asian locales **State:** Supersedes patches OSF445-011 (16.00), OSF445-019 (24.00), OSF445-162 (262.00) This patch corrects the following: • Fixes a problem in ksh. When the current working directory is / and the command cd .. is entered, the following error message is displayed: ksh: ..: bad directory • Fixes a problem in ksh in which a space after the -p option would cause the command to fail. • Fixes a possible handling problem with multibyte character boundary conditions in ksh script processing. • Fixes two ksh problems that occur in multi-byte Asian locales.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 266.00
OSF445-157
	Patch: Upgrades sys_check utility to version v120
	State: Supersedes patch OSF445-107 (122.00)
	This patch corrects the following:
	
	• Upgrades the sys_check utility to Version 119.1 and provides the following changes:
	   – Fixes the ra200info tool from core dumping.
	   – Utilizes Compaq Analyze when available.
	   – Utilizes storage's new cliscript tool in place of hszterm.
	   – Updates ASU section.
	   – Fixes two NFS problems.
	• Upgrades the sys_check utility to Version 120.

Patch 268.00 OSF445-139	**Patch:** Problems when bindsetup used to change hostnames **State:** New This patch fixes several problems when bindsetup is used to change hostnames.
Patch 270.00 OSF445X11-014	**Patch:** Fixes memory leak with PowerStorm 4D10T graphics card **State:** Supersedes patch OSF445X11-007 (13.00) This patch corrects the following: • Fixes a problem where, on systems with a PowerStorm 4D10T (ELSA Gloria Synergy, SN-PBXGK-BB) graphics card or a PCI To Ethernet/Graphics Combo Adapter (3X-DEPVD-AA), lines and images sometimes are not drawn correctly in scrolled windows. • Fixes synchronization and drawing problems in the X server for the PowerStorm 4D10T (ELSA Gloria Synergy, SN-PBXGK-BB) graphics card. • Fixes a memory leak in the X server on systems with a PowerStorm 4D10T (ELSA GLoria Synergy, SN-PBXGK-BB) graphics card that could occur when a client repeatedly created and destroyed buffers for the X Window System Multibuffering Extension (XmbufCreateBuffers/XmbufDestroyBuffers).
Patch 272.00 OSF445X11-015	**Patch:** Fixes a memory leak in the libVX11 library **State:** New The patch fixes a memory leak in the libVX11 library for X applications where freeing a GC would not free all of its memory. This problem is most likely to occur in systems with a Cateyes graphics card (4D40T, 4D50T, 4D60T, or 4D51T).
Patch 274.00 OSF445X11-017	**Patch:** Corrects blocks of erroneous pixels left behind **State:** Supersedes patch OSF445X11-011 (194.00) This patch corrects the following: • Provides the Xserver library for the new 3DLabs OXYGEN VX1 PCI graphcis card. • Corrects blocks of erroneous pixels left behind when dragging CDE application manager icons on the desktop.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 276.00 OSF445-137	**Patch:** Security (SSRT0636U) **State:** Supersedes patch OSF445-030 (34.00) This patch corrects the following: • A potential security vulnerability has been discovered, where under certain circumstances, system integrity may be compromised. This may be in the form of improper file or privilege management. Compaq has corrected this potential vulnerability. • Fixes a problem of named producing a core file when named is started and the named.boot file has more than 32767 zones specified.
Patch 279.00 OSF445-192	**Patch:** Fixes a problem with some slower tape devices **State:** Supersedes patches OSF445-081 (137.00), OSF445-211 (277.00) This patch corrects the following: • Fixes for the itpsa driver negotiating for ULTRA2 speed although the SCSI bus is single-ended. • Fixes a problem that can cause a simple lock timeout or a kernel memory fault on EV6 systems using the itpsa driver. • Fixes a problem with some slower tape devices serviced by the itpsa driver by lengthening the timeout value used.
Patch 281.00 OSF445-136	**Patch:** New JJ /etc/printcap parameter **State:** Supersedes patches OSF445-072 (79.00), OSF445-082 (138.00), OSF445-115 (140.00) This patch corrects the following: • Fixes a printing problem where lpd reads any data from the printer that has not been read, for local and remote connections. The read-backs for remote connections cause an additional two second timeout which may cause a job-submit failure on the job-number wrap-around. • A user is unable to delete a print job from a remote system with a hostname greater than 32 characters because the hostname was truncated. • When a TCP/IP connection fails, the retry algorithm would take longer to print jobs due to a long retry interval. • A timing hole during lpd last-job completion and shutdown needed to be closed. • It was not possible to print to the lpd queue using Windows 2000. • Corrects a problem in which, under certain conditions, unnecessary error messages are written to the lpr.log file. • Introduces the JJ /etc/printcap parameter, which allows the user to choose either one TCP/IP connection for all jobs in the print queue (JJ=1), or a TCP/IF connection for each job in the print queue (JJ=0). It also closes a timing hole that existed when lpd was shutting down. • Fixes a problem in which lpd hangs when printing to advanced server queues (using /dev/null).
Patch 283.00 OSF445DX-009	**Patch:** dop cannot find application names which contain a dot **State:** New This patch fixes a problem in which dop (division of privileges) cannot find application names which contain a "." (dot) in them. For example, a name such as sysmon.csh.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 285.00 OSF445-154	**Patch:** Fix for newfs **State:** New This patch provides the following fixes: • Signal parent process to enable user notification of mount failure. • Return functionality to accept disk-type from user. • Exit if overlap detected and not being run interactively. • Do not do check_usage for -N option or mfs. • Move common variable declarations to header file. • Adjust fssize and references to it to handle larger file systems.
Patch 287.00 OSF445CDE-008	**Patch:** Fixes a problem on multi-head systems **State:** New This patch fixes a problem on multi-head systems in which the unlock display only works if the default display is screen 0.
Patch 289.00 OSF445-142	**Patch:** ATM setup script fails **State:** This patch fixes a problem of the ATM setup script failing when configuring an elan if the lane subsystem is not loaded.
Patch 291.00 OSF445-199	**Patch:** Fix for memory channel driver panic **State:** New This patch fixes an incorrect heartbeat timer within the memory channel driver which caused rail failures to be incorrectly reported on memory channel Version 2 cards. With the heartbeat timer set too short, the system can be erroneously led to believe a hardware failure has occurred. Messages of the form "rmerror_int: ..." are output to the messages file containing an error_type which has bit 29 set in error_type (heartbeat timeout). The binary error log will also have this data. Typically, the error_type data will be 0xe00000000. The messages are followed by the system hanging or panicing. When panicking, the following message is produced: panic (cpu 0): rm_failover_if_necessary, both rails bad A real hardware failure produces the same symptoms and stack trace. For example, having an error_type of 0xe00000002 indicates a write transmit hardware fatal failure.
Patch 293.00 OSF445-175	**Patch:** Corrects a problem with inetd **State:** New This patch corrects a problem with inetd which could result in its termination without notice and without a core file.
Patch 295.00 OSF445-185	**Patch:** Fix for debugger problem that causes program hang **State:** Supersedes patch OSF445-048 (53.00) This patch corrects the following: • Fixes a kernel memory fault in procfs_get_s5_dir. • Corrects a problem where attaching to a program with a debugger will cause periodic timers to be lost and will make the program hang.
Patch 297.00 OSF445-147	**Patch:** Fix for newgrp command **State:** New This patch corrects the problem where newgrp(1) fails if the file /etc/group contains multiple lines for one group.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 299.00 OSF445-176	**Patch:** Fix for parallel processing support library **State:** Supersedes patch OSF445-042 (47.00) This patch fixes the following problems in the Compaq C compiler: • A "virtual memory exhausted" error when compiling the Open Source encryption library OpenSSL. • An optimizer problem in loop unrolling that caused an incorrect result under certain conditions. • Various compiler crashes under certain conditions. • A problem in bounds checking that caused a compilation to fail with a virtual memory exceeded error. • A problem in the parallel processing support library (libots3) that caused incorrect run-time results for an OpenMP program.
Patch 305.00 OSF445-148	**Patch:** Security (SSRT0672U) **State:** New A potential security vulnerability has been discovered where, under certain circumstances, system integrity may be compromised. This may be in the form of improper file or privilege management. Compaq has corrected this potential vulnerability.
Patch 307.00 OSF445-167	**Patch:** Fixes automount handling of nogrpid option **State:** Supersedes patch OSF445-036 (40.00) This patch corrects the following: • Prevents the message "nfscast: select: Invalid argument" message from appearing in the daemon.log when the server is not available. It also changes the "trymany: servers not responding: RPC: Unable to receive" message to an informational vs. error message. • Fixes the automount handling of the nogrpid option.
Patch 309.00 OSF445-124	**Patch:** Fixes a problem in rpc.lockd **State:** New This patch fixes a problem in rpc.lockd where the FCNTL () function fails to lock nfs mounted directories.
Patch 311.00 OSF445-159	**Patch:** Addresses multiple issues for RA2000 controllers **State:** New This patch addresses multiple issues for the KZPCC family of RAID Array 2000 (RA2000) controllers: • Errors seen when concurrent opens are issued to separate logical partitions on the same logical device. • Change to the preferred chunk size from 16 KB to 64 KB which may increase data transfer rates.
Patch 313.00 OSF445CDE-009	**Patch:** Fix for dtpad utility **State:** New This patch fixes a problem where, if dtpad cannot allocate enough memory, it will exit and leave a zero-length file in place of the file being edited.
Patch 315.00 OSF445-201	**Patch:** Fix for ksh hang **State:** New This patch fixes a problem where the Korn shell (ksh) could hang if you pasted a large number of commands to it when it was running in a terminal emulator window (such as an xterm).

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 317.00 OSF445-158	**Patch:** Fix for vi editor core dump **State:** New This patch fixes a problem in which the vi editor core dumps when it finds invalid syntax during a substitute operation.
Patch 319.00 OSF445-143	**Patch:** System panics on configurations using Memory Channel **State:** New This patch fixes a panic or a system hang which could occur on a DS20E with drives attached to the motherboard SCSI interface (Adaptec 7895 based) or on an Ultra3 KZPEA SCSI adapter. In addition to system hangs or panics on configurations using Memory Channel adapters some configurations have exhibited SCSI device problems.
Patch 321.00 OSF445-146	**Patch:** ATM signalling connection released after reboot **State:** New This patch fixes a problem of ATM signalling going into the "connection released" after a system reboot.
Patch 323.00 OSF445-160	**Patch:** Corrects a memory leak in the XTI socket code **State:** New Corrects a memory leak in the XTI socket code
Patch 325.00 OSF445-152	**Patch:** Prevents TurboLaser system panic **State:** New This patch prevents a panic on TurboLaser systems with a DE600 in pci slot 0. Mis-identification of the DE600 in pci slot 0 causes data structure corruption. TurboLaser systems include the following: AlphaServer 8200 AlphaServer 8400 AlphaServer GS60 AlphaServer GS60E AlphaServer GS140 A DE600 is a single-port 10/100 Mbps Fast Ethernet NIC.
Patch 331.00 OSF445-193	**Patch:** Security (SSRT1-15, SSRT0713U) **State:** New A potential security vulnerability has been discovered where, under certain circumstances, system integrity may be compromised. This may be in the form of improper file or privilege management. Compaq has corrected this potential vulnerability.
Patch 333.00 OSF445-150	**Patch:** rdist utility causes segmentation fault **State:** New This patch corrects a problem in the rdist utility which was causing segmentation faults on files with more than one link.
Patch 335.00 OSF445-132	**Patch:** Kernel memory occurs occurs while using tablet **State:** Supersedes patch OSF445-050 (56.00) This patch corrects the following: • Fixes a "lock_terminate: lock held" panic when deleting a process group. • Fixes a kernel memory fault which occurs while using tablet instead of mouse.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 337.00 OSF445-184	**Patch:** Fixes DS10/DS20 performance problems **State:** New This patch fixes DS10/DS20 performance problems introduced with the i2c driver by using thread blocking, rather than event_timeout() and DELAY().
Patch 339.00 OSF445-140	**Patch:** Fixes unaligned kernel space access from km panic **State:** New This patch fixes a problem in which the system may panic with the panic string "Unaligned kernel space access from kernel mode".
Patch 342.00 OSF445-153	**Patch:** Security (SSRT0664U) **State:** New. Supersedes patch OSF445-121 (340.00) This patch corrects the following: • A potential security vulnerability has been discovered where, under certain circumstances, system integrity may be compromised. This may be in the form of improper file or privilege management. Compaq has corrected this potential vulnerability. • Corrects a problem with the ftpd daemon which could result in PC ftp clients hanging when transferring some files in ASCII mode.
Patch 344.00 OSF445-168	**Patch:** Fix for joind server **State:** New This patch corrects a problem with joind which caused it to respond to certain client dhcp requests via the wrong port.
Patch 346.00 OSF445-194	**Patch:** Fixes a problem in binlogd daemon **State:** New This patch fixes a problem in binlogd which overwrites adjacent header fields in an error record if the system's hostname is longer than 12 characters.
Patch 350.00 OSF445-212B	**Patch:** Modifies AdvFS kernel code and several utilities **State:** New This patch modifies AdvFS kernel code and several utilities. AdvFS will no longer panic with the following error: ADVFS EXCEPTION : panic cpu(0) : bad frag free list The code is modified so that during frag allocation when AdvFS determines that the frag group header's free list has been corrupted, it stops using it and marks it BAD. It is then removed from the free list so no more allocations can take place and no deallocations are performed. The verify, shfragbf, and vfragpg programs are modified to report BAD frag groups.
Patch 352.00 OSF445-230A	**Patch:** Fix for libots3 shared library **State:** New This patch fixes a problem in the parallel processing support library (libots3) that caused incorrect run-time results for an OpenMP program.
Patch 354.00 OSF445-230B	**Patch:** Fix for libots3 static library **State:** New This patch fixes a problem in the parallel processing support library (libots3) that caused incorrect run-time results for an OpenMP program.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 356.00 OSF445-242	**Patch:** Security (SSRT0676U)

State: Supersedes patches OSF445-012 (17.00), OSF445-040 (45.00), OSF445-068 (71.00), OSF445-073 (78.00), OSF445-079 (75.00), OSF445-083 (176.00), OSF445-005 (55.00), OSF445-007 (73.00), OSF445-010 (15.00), OSF445-016 (21.00), OSF445-017 (22.00), OSF445-026 (30.00), OSF445-004 (44.00), OSF445-049 (54.00), OSF445-062 (66.00), OSF445-064 (68.00), OSF445-066 (69.00), OSF445-101 (108.00), OSF445-069 (72.00), OSF445-008 (74.00), OSF445-065 (141.00), OSF445-075 (142.00), OSF445-002 (143.00), OSF445-095 (110.00), OSF445-058A (145.00), OSF445-106 (114.00), OSF445-015 (20.00), OSF445-013 (18.00), OSF445-029 (32.00), OSF445-037 (41.00), OSF445-052 (57.00), OSF445-076 (107.00), OSF445-171 (212.00), OSF445-144 (213.00), OSF445-189 (214.00), OSF445-131 (215.00), OSF445-123 (216.00), OSF445-133 (217.00), OSF445-182 (218.00), OSF445-178 (219.00), OSF445-173A (220.00), OSF445-119 (221.00), OSF445-172 (222.00), OSF445-196 (223.00), OSF445-120 (224.00), OSF445-126 (225.00), OSF445-151 (226.00), OSF445-191 (227.00), OSF445-190 (228.00), OSF445-188 (229.00), OSF445-166 (230.00), OSF445-200 (231.00), OSF445-187 (232.00), OSF445-197 (233.00), OSF445-195 (235.00), OSF445-179 (236.00), OSF445-203 (237.00), OSF445-204 (238.00), OSF445-186 (240.00), OSF445-212A (348.00), OSF445-116 (303.00)

This patch corrects the following:

- Fixes a problem with verify. When verify is run on a brand new domain, NFS warnings are displayed even though no NFS related activity is being done.

- Fixes a system hang that could last up to a few minutes with large files when performing synchronous IO requests and a flushing loop.

- Fixes a problem where, in the output of a ps command, the PAGEIN column reports 0 for all processes.

- Patch turns off AdvFS assert which, when turned on, a performance degradation in AdvFS occurs.

- A kernel memory fault can occur on an smp machine when one thread is extending a clone frags file and another thread does a stat system call on a file with a frag.

- Fixes a problem with AdvFS. An AdvFS domain becomes inaccessible when using the mount -d option.

- Fixes a kernel memory fault in VMAC code if_addnewaddr().

- Adds a fix to VMAC functionality when used with NetRAIN.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 356.00 continued	• Fixes a problem where the following can occur during a system panic:
	– System calls interrupts
	– mpsleep() returns an EINTR error when the panicstr is non-NULL
	– An infinite looping at a very high priority
	• Fixes a bug such that when fuser -k is issued on a dismounted NFS mount point in which some process is running, a hang will occur.
	• Fixes a problem in which operations on NFS files can hang indefinitely.
	• Fixes a problem that causes corruption in the floating point registers whereby the flag fields nxm_fp_owned are overwritten with 0s.
	• Fixes a problem where, if the size of the message queue was increased, writers to the queue that were blocked would not wake up for processing.
	• Fixes a system panic with panic string:
	psig: catch not set
	• Fixes a problem where the system appears to hang. A child process is holding a lock too long and preventing other processes from doing work.
	• Fixes a problem in which the POSIX interval timer is not resilent to clock slowdown caused either by NTP or by a backwards change of the clock.
	• Fixes a kernel memory fault seen under certain conditions when setting a thread's priority.
	• There is a potential for a system panic in routine sbflush() if there is an attempt to flush a socket buffer while it is locked by another thread. This patch corrects the problem.
	• This patch fixes two panics that have the following error messages:
	simple_lock: time limit exceeded
	simple_lock: lock already owned by cpu

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 356.00 continued	• Corrects a problem with the incorrect ordering of network interfaces which was resulting in network partitions.
	• Fixes a panic associated with ASE service failover.
	• Fixes a panic in in_pcbfree() when NFS is implemented over TCP.
	• Fixes a problem with relocating an TCR/ASE NFS service when one or many clients have the service mounted over TCP.
	• Coding change to ip_insertoptions() to correct excessive execution time in routine in_cksum due to invalid message length.
	• Fixes reply values for NFS writes which were causing protocol violations.
	• Prevents a possible NFS over TCP hang. NFS TCP threads will be blocked in sosbwait() causing the system to appear to hang.
	• Fixes a problem where the operating system only looks in slot 0 for the primary CPU.
	• Fixes a problem where a root user was not allowed to check file access on behalf of a user without completely becoming the user. The functionality is needed by the ASU (Advanced Server for UNIX) product.
	• Fixes a simple_lock time limit exceeded panic due to an SMP race condition in namecache.
	• Fixes a race condition in the UBC code where a lookup is done on a page being invalidated (freed).
	• Includes UFS delayed metadata mount option that fixes metadata intensive application performance.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 356.00 continued	• Fixes a hang or simple_lock_state_violation panic in biodone.
	• A potential security vulnerability has been discovered where, under certain circumstances, system integrity may be compromised. This may be in the form of improper file or privilege management. Compaq has corrected this potential vulnerability.
	• Corrects a problem in which a single application's creating and removing of files repeatedly in the absence of other applications working on the same fileset can cause poor update daemon performance due to a flawed kernel hashing algorithm.
	• Fixes panics which can occur if a signal is sent to a multi-threaded task in which one or more threads are calling exit() or exec().
	• Fixes a problem in which the wrong status was returned from EEROM read.
	• Corrects a problem where a directory entry may be attempted to be changed to "." and the code checks for this prevents it from happening.
	• Fixes a panic in AdvFS which has the following error message: panic: Unaligned kernel space access from kernel mode.
	• Fixes a problem where the setgid bit of a directory was not being set when created, if its parent directory has the setgid bit set.
	• Fixes an AdvFS hang that is caused by a thread waiting for flushCv notification and is holding resources that other threads want. This type of hang has been experienced when shutting the system down.
	• Provides support for activating temporary data logging on a mount point.
	• Fixes a kernel memory fault from ufs_mount().
	• Fixes a system hang caused by netisr queue corruption due to a race condition that is primarily encountered by third party drivers and layered products that call schednetisr_nospl().
	• cCorrects a simple lock timeout seen when dealing with NFS loopback mounted file systems with large amount of dirty pages.
	• Prevents a system panic from occurring while using AdvFS.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 356.00 continued	• Fixes "simple_lock: time limit exceeded" system panic either from cache_lookup() or cache_enter(). This is caused by the namecache LRU list getting corrupted.
	• Fixes inaccuracy problems when using setrlimit/getrlimit with a threaded application.
	• Fixes a hang in the UFSfilesystem.
	• Fixes a memory leak when named pipes (FIFOs) are used.
	• Fixes a problem that causes Tarantella Enterprise 1.41 not to install on Tru64 UNIX.
	• CDFS media burned in 2001 shows the wrong dates.
	• Fixes a timing window where flushing data to disk can be incomplete when a system is going down, if more than one thread calls reboot() without first going through shutdown, /sbin/reboot, or /sbin/halt.
	• Fixes a problem where threads can hang in x_load_in-mem_xtnt_map().
	• Fixes a potential problem flushing data to disk when using data logging with sparse files.
	• Corrects an AdvFS panic which can occur during a rmfset operation with the panic string: "rbf_delete_int: can't find bf attributes".
	• Fixes hangs in AdvFS fileset operations such as clone creation and deletion when I/O errors or device full conditions resulted in the operation being undone.
	• Fixes a problem when using multiple subnets on a netowrk interface; ARP request packets sent by the system will contain the IP alias address in the sender field when that alias is in the same subnet as the requested IP address.
	• Fixes a problem when applications make IOCTL calls using an IP alias address on a network interface.
	• Fixes a problem where threads can hang while renaming files on NFS mounted filesystems.
	• Modifies AdvFS kernel code and several utilities. AdvFS will no longer panic with the following error: ADVFS EXCEPTION : panic cpu(0) : bad frag free list. The code is modified so that during frag allocation when advfs determines that the frag group header's free list has been corrupted, it stops using it and marks it BAD. It is then removed from the free list so no more allocations can take place AND no deallocations are performed. The verify, shfragbf, and vfragpg programs are modified to report BAD frag groups.
	• Fixes two problems with the consvar command:
	– consvar -s now sets a tape device as a boot device from the console.
	– consvar -g now displays a listing of the console settings as intended.
	• Fixes a "simple_unlock: lock not owned by cpu" panic in the biodone routine.

Table 2–2: Summary of Base Operating System Patches (cont.)

Patch 358.00
OSF445-243
	Patch: Fix for ld -f command
	State: New. Supersedes patches OSF445-161 (326.00), OSF445-156 (327.00), OSF445-169 (329.00)
	
	This patch corrects the following:
	
	• Fixes two problems in the linker where it would erronously report "multiply defined symbol" errors or "unresolved symbol" errors:
	
	  – Modifies the linker's symbol resolution to enable it to recognize when a reference to a symbol defined in a shared library is replaced by a symbol defined in an object file or archive.
	
	  – Modifies the linker to cause it to rescan shared libraries before reporting unresolved symbols.
	
	• Fixes two errors that occur when using the -f switch with the linker (ld):
	
	  – Using the -f switch produces link errors.
	
	  – Any unsupported switch beginning with -f gets interpreted to mean -f.
	
	• Fixes a problem where the linker defined symbol _fpdata would end up being undefined if it was referenced by a program but not used by the linker.
	
	• Fixes a potential optimization problem with the linker (/bin/ld).

3

Summary of TruCluster Software Patches

This chapter summarizes the TruCluster software patches included in Patch Kit-0003.

Table 3–1 lists patches that have been updated.

Table 3–2 provides a summary of patches..

Table 3–1: Updated TruCluster Software Patches

Patch IDs	Change Summary
Patch 80.00	New
Patches 2.00, 9.00, 10.00, 5.00, 13.00, 16.00, 17.00, 14.00, 29.00, 31.00, 38.00, 39.00, 47.00, 21.00, 49.00, 32.00, 43.00, 27.00, 48.00, 52.00, 53.00, 54.00, 55.00, 56.00, 57.00, 59.00	Superseded by Patch 78.00
Patch 30.00	Superseded by Patch 82.00

Table 3–2: Summary of TruCluster Patches

Patch IDs	Abstract
Patch 4.00 TCR160-004	**Patch:** Fix for Kernel Memory Fault On DRD Client Nodes **State:** Existing This patch fixes a kernel memory fault on the DRD client nodes just as or after the DRD server node has initiated MC2 hub failover.
Patch 7.00 TCR160-010	**Patch:** Fix for Reliable Datagram API **State:** Supersedes patch TCR160-001 (1.00) This patch corrects the following: • Reliable Datagram (RDG) messaging support. • RDG: bug fix to the completion queue synchronization protocol.
Patch 8.00 TCR160-011	**Patch:** doconfig may hang when running in TruCluster environment **State:** Existing This patch fixes two problems that could cause doconfig to appear to hang when running in a TruCluster environment.
Patch 12.00 TCR160-018	**Patch:** Fixes problem with Networker displaying characters **State:** Existing This patch corrects a problem with Networker displaying garbage characters following service names. It occurs when the service name is 8 characters or greater.
Patch 33.00 TCR160-037	**Patch:** Fix for drdadmin problems **State:** Existing This patch fixes various problems with drdadmin to be user friendly.
Patch 34.00 TCR160-038	**Patch:** Fixes a limitation in ase_reconfig_bus **State:** Existing This patch fixes a limitation in ase_reconfig_bus. Now up to 99 buses can be reconfigured with this command.

Table 3–2: Summary of TruCluster Patches (cont.)

Patch 35.00 TCR160-039	**Patch:** LSM disk information not updated in ASE database **State:** Supersedes patch TCR160-030 (28.00) This patch corrects the following: • Fixes a problem that would cause an error from awk(1) when modifying an ASE service that contained a large number of LSM volumes. The error would prevent the service from being properly modified. • Fixes a problem where LSM disk information was not properly updated in the ASE database when volumes were removed from a disk service.
Patch 36.00 TCR160-040	**Patch:** Fix for asedirector hang **State:** Existing This patch fixes a problem that could cause an NFS or Disk Service that has a hyphen (-) in the service name to end up unassigned after a disk failure. A side effect of the problem was that the asedirector would hang after the disk failure was corrected.
Patch 37.00 TCR160-041	**Patch:** clu_ivp does not recognize Emulex adapter **State:** Existing This patch fixes a problem where the Emulex Fibre Channel adapter was not recognized by clu_ivp.
Patch 42.00 TCR160-046	**Patch:** Processes may get referenced several times **State:** Supersedes patches TCR160-008 (6.00), TCR160-023 (15.00), TCR160-044 (40.00) This patch corrects the following: • Fixes a problem in which a cluster node can panic with the panic string "convert_lock: bad lock state". • Corrects a problem in which a failure in the session layer can cause DLM messages to become corrupt resulting in random DLM panic on the receiving member. • Fixes a problem that can cause a TruCluster member to panic during shutdown. • Fixes a bug where sometimes a certain shared sequence number will not be freed after use. It also fixes a problem where certain processes could get referenced several times.

Table 3–2: Summary of TruCluster Patches (cont.)

Patch 61.00 TCR160-054B	**Patch:** Fixes problems with the clu_ivp script **State:** TCR160-009B (22.00), TCR160-021B (23.00), TCR160-022B (24.00), TCR160-031B (25.00), TCR160-036B (50.00), TCR160-047B (51.00) This patch corrects the following: • This is a performance improvement in the startup of start scripts. It will reduce the necessary system calls to start the scripts. • Corrects a problem with member add in a large environment. • Corrects a problem which causes asemgr to core dump when modifying a single drd service to add more than 200 devices. • Fixes a problem that caused aseagent or asehsm to core dump when starting NFS and Disk Services that contain several LSM volumes. • Fixes a problem with extraneous compiler warnings about strdup() function calls from ASE. • Fixes a problem that caused the asemgr utility to not run when called from a program that is owned by root and has the setuid bit turned on. • This patch fixes the following problems with the clu_ivp script: The script now checks to be sure that the cluster members are listed in the /etc/hosts file, and it no longer copies /var/adm/messages to /tmp. Copying the messages file to /tmp could result in the filesystem becoming full, and clu_ivp exiting with an error. The clu_ivp script now also checks the /var/adm/messages file for shared busses if none are listed in the configuration file.
Patch 63.00 TCR160-064	**Patch:** Node crashes when holding an mc-api lock **State:** Supersedes patches TCR160-029 (20.00), TCR160-050 (46.00) This patch corrects the following: • Fixes a hang problem in a cluster when two nodes communicate using the mc-api and a third node, not involved in the calculation, is rebooted. • Fixes a problem that can cause a panic in mcs_wait_cluster_event() when using the Memory Channel API. • Fixes a problem with the Memory Channel API whereby a node crashes holding an mc-api lock. Under certain circumstances the lock will not be released after the node crashes.
Patch 65.00 TCR160-063	**Patch:** Unable to remove LSM volumes from DRD service **State:** Supersedes patch TCR160-003 (3.00) This patch corrects the following: • Fixes a problem where DRD permissions could be lost if a service is modified more than once. • Fixes a problem that prevented the removal of LSM volumes from a DRD service. The problem occurs when there are multiple LSM diskgroups in the service, and all of the volumes from one diskgroup were removed.

Table 3–2: Summary of TruCluster Patches (cont.)

Patch 67.00 TCR160-054C	**Patch:** clu_ivp script enhancements **State:** Existing This patch fixes the following problems with the clu_ivp script: The script now checks to be sure that the cluster members are listed in the /etc/hosts file, and it no longer copies /var/adm/messages to /tmp. Copying the messages file to /tmp could result in the filesystem becoming full, and clu_ivp exiting with an error. The clu_ivp script now also checks the /var/adm/messages file for shared busses if none are listed in the con- figuration file.
Patch 70.00 TCR160-056	**Patch:** TruCluster Production server hangs during boot **State:** Supersedes patches TCR160-017 (11.00), TCR160-027 (19.00), TCR160-032 (26.00), TCR160-062 (68.00) This patch corrects the following: • Fixes a problem where both nodes in a cluster will panic at the same time with a simple_lock timeout panic. panic (cpu 0): rm_update_single_lock_miss: time limit exceeded • Fixes a problem that could cause an error to be returned when the Cluster software should wait until a global lock is freed. • Fixes a problem that could cause a TruCluster Production server member to hang during boot, and can cause a "simple lock time limit exceeded" panic.
Patch 72.00 TCR160-067	**Patch:** Error msg if system contained unsupported controllers **State:** Existing This patch fixes a problem that caused an error message to be printed if the system contained unsupported controllers. The error message will now only be printed when running the command in verbose mode.
Patch 74.00 TCR160-061	**Patch:** Access mode for a directory not set to default **State:** Supersedes patches TCR160-045 (41.00), TCR160-048 (44.00), TCR160-049 (45.00) This patch corrects the following: • Fixes a problem that caused the setting of the "force unmount" option to be incorrectly displayed by the asemgr utility. • Fixes a problem that caused shell errors if an invalid mount option was specified via the asemgr menu. • Fixes a problem that caused the device name for a Unix File System (UFS) to not be displayed when modifying the "force unmount" option via the asemgr utility. • Fixes a problem that caused the access mode for a directory to not get set to the default after modifying them via asemgr.
Patch 76.00 TCR160-055	**Patch:** Problem causes mountd to exit without error **State:** Existing This patch fixes a problem that could cause mountd to exit without error during boot.

Table 3–2: Summary of TruCluster Patches (cont.)

Patch 78.00 TCR160-071	**Patch:** Fixes a problem that causes asedirector to core dump
	State: Supersedes patches TCR160-002 (2.00), TCR160-009A (9.00), TCR160-016 (10.00), TCR160-007 (5.00), TCR160-021A (13.00), TCR160-024 (16.00), TCR160-025 (17.00), TCR160-022A (14.00), TCR160-033 (29.00), TCR160-035 (31.00), TCR160-042 (38.00), TCR160-043 (39.00), TCR160-051 (47.00), TCR160-031A (21.00), TCR160-053 (49.00), TCR160-036A (32.00), TCR160-047A (43.00), TCR160-028 (27.00), TCR160-052 (48.00), TCR160-065 (52.00), TCR160-066 (53.00), TCR160-058 (54.00), TCR160-060 (55.00), TCR160-054A (56.00), TCR160-057 (57.00), TCR160-059 (59.00)

This patch corrects the following

- Fixes two problems in the asedirector:

    - An ASE command timeout problem encountered by large ASE services.

    - An incorrect decision made by the asedirector as a result of a failed inquire services command.

- This is a performance improvement in the startup of start scripts. It will reduce the necessary system calls to start the scripts.

- Fixes a problem where the Host Status Monitor (asehsm) incorrectly reports a network down (HSM_NI_STATUS DOWN) if the counters for the network interface get zeroed.

- Fixes an ASE problem where, under certain circumstances, the service scripts could cause the ASE agent to loop during a start or stop service.

- Corrects a problem with member add in a large environment.

- Corrects a problem with TruCluster Available Server or Production Server cluster in which services have been started with elevated priority and scheduling algorithm. Under significant load this could lead to intermittent network and cluster problems.

- Fixes a problem which caused a service not to start when there was a short network failure. This was seen only with long running stop scripts and special network configurations.

- Corrects a problem which causes asemgr to core dump when modifying a single drd service to add more than 200 devices.

- Fixes a problem that caused aseagent or asehsm to core dump when starting NFS and Disk Services that contain several LSM volumes.

- Fixes a problem where the asemgr will hang as it continuously create and kill multiple directors.

- Corrects a problem that causes the ASE director to core dump during initialization.

- Corrects a problem where modifying a service with a large number of DRDs will fail and a "could not malloc" message is seen in the daemon.log file.

- Fixes a problem where the MEMBER_STATE variable always is shown as BOOTING instead of RUNNING. After first installing TCR, there is no way to have scripts know the MEMBER_STATE. This problem is cleared on a reboot.

- Corrects a problem in which a network cable failure that corrects within 7 seconds of the failure can leave the services in a bad state.

- Fixes a problem that caused the asemgr to get a memory fault when adding multiple services in a row.

- Fixes a problem with extraneous compiler warnings about strdup() function calls from ASE.

Table 3–2: Summary of TruCluster Patches (cont.)

Patch 78.00 continued	• Fixes a problem that caused the asemgr utility to not run when called from a program that is owned by root and has the setuid bit turned on.
	• Fixes a problem that can cause the Cluster MIB daemon (cnxmibd) to core dump in Available Server environments.
	• Fixes a problem which caused an error message to be logged for the cnxmibd even though no error had occurred.
	• Fixes two issues with clusters:
	– When a cluster is brought up with ASE off, other members report it as UP and RUNNING instead of UP and UNKNOWN.
	– When a restricted service is running on a member, and asemember stop or aseam stop is executed, the service status is still reported as the member name, instead of Unassigned.
	• Fixes a problem where timeout values of greater than 30 seconds in /etc/hsm.conf would cause ASE agent to fail at start up.
	• Fixes a bug where the aseagent will occasionally core dump on a SCSI bus hang.
	• Fixes a problem that caused the asemgr to report the wrong status for a service.
	• This patch fixes the following problems with the clu_ivp script:
	The script now checks to be sure that the cluster members are listed in the /etc/hosts file, and it no longer copies /var/adm/messages to /tmp. Copying the messages file to /tmp could result in the filesystem becoming full, and clu_ivp exiting with an error. The clu_ivp script now also checks the /var/adm/messages file for shared busses if none are listed in the configuration file.
	• Fixes a problem that could cause the asedirector to core dump.
	• Fixes a problem that caused the asemgr to report that a disk, or mount point, was in multiple services when modifying a service name.
	• Fixes a problem with the ASE application from reporting an incorrect status while booting, after installation or while re-initializing the database.
Patch 80.00 TCR160-070	**Patch:** Fixes problem with ASE_SNMPD_IGNORE_DISKS **State:** New This patch fixes a problem with the ASE_SNMPD_IGNORE_DISKS feature. After specifying a disk to ignore, the ASE service stop and add commands result in conflicting data. While the daemon.log reports apparent success ("hrm_dsk.c will ignore /dev/rzb10") the error log reports a failure that indicates that the device is NOT being ignored (CAM "unit reserved error").
Patch 82.00 TCR160-068	**Patch:** Fix for boot failure on a cluster **State:** Supersedes patch TCR160-034 (30.00) This patch corrects the following: • Fixes a problem which caused a boot failure on a cluster with a large number of shared SCSI buses. • Fixes a problem in clustered systems. It reduces the occurrences of tmv2_notify_cbf error messages in the errlog.