



AlphaServer DS20E / AlphaStation DS20E

Release Notes
EK-K8F6W-RN. A01
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This document covers the hardware release notes.

Sections in this document include:

- Minimum Revision Requirements
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For further reference, see the system *Firmware Update Procedures and Release Notes*. They can be printed from the Alpha Systems Firmware CD-ROM, AG-PTMW*-BE, where asterisk represents the latest version.

For more information or software or firmware updates, you can access the following Web sites:

General Support	http://www.compaq.com/services
Console Firmware	http://ftp.digital.com/pub/DEC/Alpha/firmware/
Operating System Patches	http://www.service.digital.com/patches/index.html
Compaq Analyze	http://www.compaq.com/support/ (select link service tools)
Linux Installation Information	http://www.digital.com/alphaserver/linux/install_guide.html

Minimum Revision Requirements

Tru64 UNIX	OpenVMS	Linux	Console Revision	AlphaBIOS	Compaq Analyze ¹
V4.0F	V7.2-1 or 7.1-2	Redhat Distribution 5.2	V5.5-9	V5.70A	V1.2, contained in WEBES V1.0

¹ Error analysis will be supported on Compaq Tru64 UNIX and OpenVMS systems with the introduction of Compaq Analyze. Compaq Analyze is going through the qualification process and will be available in the near future. Check the associated media shipped with the operating system and check the operating system's update library that is shipped quarterly. Also, the attached Web site can be checked for the most recent updates <http://www.compaq.com/support/> (select link service tools).

Operating System Notes

Tru64 UNIX

All of the following issues will be fixed in the next available Tru64 UNIX patch kit for Tru64 UNIX V4.0F BL013. The patch page URL is: <http://www.service.digital.com/patches/index.html>

- **The Tru64 UNIX system log may indicate an error reading environmental status.**

The lack of response is caused by an access conflict on the maintenance bus. This is normal behavior and does not require any action.

- **System fan failures may log incorrectly.**

When system fan 0 or 1 fails, Tru64 UNIX is logging the error as an uncorrectable event (682). The correct entry type should be a correctable event (688).

- **After installing a redundant power supply, additional events may log incorrectly.**

After a third power supply is installed, error events may not be reported accurately. For instance, a redundant power supply failure might be reported as uncorrectable (682) when it should be reported as correctable (687).

- **Ignore the “platform not known” error messages on boot.**

Version V4.0F of Tru64 UNIX has latent support for the DS20E systems. Therefore, you can safely ignore the following error messages.

```
Platform DS20E not known to Tru64 UNIX V4.0F.  
kn600_get_func_supported(): Unrecognized KN600 member_id: 0x8 Forcing  
defaults:  
Power Management not supported  
Server Management not supported  
2 PCI busses configured
```

- **Adaptec devices are not supported by V4.0F of Tru64 UNIX or OpenVMS.**

If your system has Adaptec devices, V4.0F will not recognize them and will give you the following error messages:

```
PCI device at bus 0, slot 6, function 0 could not be configured:  
Vendor ID 0x9004, Device ID 0x7895, Base class 0x1, Sub class 0x0 Sub-VID  
0x9004 Sub-DID 0x7895  
has no matching entry in the PCI option table PCI device at bus 0, slot 6,  
function 1 could not be configured:  
Vendor ID 0x9004, Device ID 0x7895, Base class 0x1, Sub class 0x0 Sub-VID  
0x9004 Sub-DID 0x7895  
has no matching entry in the PCI option table
```

OpenVMS

- **In DS20E systems with fewer than three power supplies, OpenVMS incorrectly reports a redundant power supply failure whenever an environmental interrupt occurs.**

In DS20E systems with only two power supplies, OpenVMS can incorrectly display an OPCOM message indicating a redundant power supply failure. This is a result of not checking the power supply present bits to validate power supply failure indication. The correct analysis for the environmental event can be determined by examining the environmental event errorlog entry in the system errorlog file. A future version of OpenVMS will correct this problem with the OPCOM message.

- **See also notes under Compiler Releases section and in the Adaptec note above.**

SRM Console Notes

Console display

The console may list devices not supported on the system.

Some controllers integrated into the system board are included in the console display, but they are not supported on this system. The USB and the Adaptec controller are not supported.

show power command

The SRM show power command produces a false report after reinsertion of a power supply.

Since there is only one signal wire coming from the power supply (DC_OK), the logic cannot tell if the supply is missing or bad. Therefore, at times, a false negative will occur.

In a system with non-redundant power supplies (either PS0 and PS1 or PS0 and PS2), incorrect status is displayed by the **show power** command when one power supply is removed, then reinserted. (This error does not occur with power supplies in PS1 and PS2.)

Example:

```
>>> show power
      PS0 Good
      PS1 Good
      PS 2 empty
```

Remove power supply 0 (PS0), then SHOW POWER displays

```
>>> show power
      PS0 Bad
      PS1 Good
      PS 2 empty
```

Reinsert PS0 then

```
>>> show power
      PS0 Good
      PS1 Good
      PS 2 Bad
```

In this example, PS2 is being falsely reported as bad; it should still display as empty. The same results occur with PS1 empty instead of PS2.

Fix: To clear this false error, turn the system off then on again. The SRM console will then recognize a new power supply configuration and report it as good.

If after power cycling, the power supply is still reported by the hardware as bad, then replace the power supply. A corrupted power supply will continue to report as bad after power cycling.

Compiler Releases

Systems with the Alpha 21264 chip (EV6), such as the DS20E, require the latest compilers to achieve optimal performance.

The recommended versions of the C, C++, Fortran, and KAP Fortran compilers for 21264 systems with Tru64 UNIX V4.0F, and their locations, are as follows:

DEC C V6.0-007	UNIX V4.0F, CMPDEVALT subset (see below)
DIGITAL C++ V6.1-027	UNIX layered product CD, October 1998
Digital Fortran 77 V5.2	UNIX layered product CD, January 1999
Digital Fortran 90 V5.2	UNIX layered product CD, January 1999
KAP Fortran V4.1	UNIX layered product CD, January 1999

The Tru64 UNIX operating system distribution includes two versions of the DEC C compiler:

Command	Subset Name
cc	OSFCMPLRSnnn
cc.alt	CMPDEVALTnnn

Both versions of the compiler are fully supported. The "cc" version uses slightly older software components. The "cc.alt" version uses a newer code generator and will usually provide faster run-time performance. Performance improvements provided in "cc.alt" will be incorporated into later versions of "cc".

The OSFCMPLRS subset is on the first CD in the UNIX V4.0F set. It is typically installed automatically, since it is used for kernel builds. The CMPDEVALT subset is on one of the additional CDs that ship with Tru64 UNIX V4.0F.

For more information about compilers, see:

<http://www.unix.digital.com/developertoolkit>

<http://www.digital.com/fortran/>

<http://www.digital.com/hpc/software/kap.html>

On Tru64 UNIX, use of the following switches will also optimize performance:

-tune ev6 Generate instruction sequences to improve performance on EV6 systems, but avoid instructions that were not available on earlier processors

-arch ev6 Generate instruction sequences that are optimal for EV6, including instructions that were not available on earlier processors

The best 21264 performance is typically observed with **-arch ev6**, but if a program will be used on a variety of system types, you should either:

1) use **-tune ev6** and do not use the **-arch** switch, or

2) compile two versions of the program, one with **-arch ev6** and the other without the **-arch** switch.

Installation of Compaq Analyze

Systems are required to have all appropriate Service tools installed and verified as part of the installation process.

Compaq Analyze provides critical error event translation and analysis for the DS20E systems. Compaq Analyze, available in the near future, will be installed by manufacturing. If the operating system is reinstalled or upgraded, Compaq Analyze may need to be reinstalled. Please check the operating system media or the attached Web page for Compaq Analyze V1.2 (WEBES V1.0) for availability: <http://www.compaq.com/support/> (select link service tools).

RMC Notes

Keep COM1 baud rate at 9600 to enable console callbacks.

The Remote Management Console (RMC) is only supported when the COM1 baud rate is set to 9600 baud (the factory default setting). If you wish to run COM1 at a different baud rate, the RCM must be disabled. See the *DS20E Reference Guide* for information on switch settings, or the system labels inside the cabinet.