AlphaServer DS20L

V6.5 Console Firmware Release Notes

June 2003

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1 Scope

The document lists significant changes in this firmware release and describes methods to update console firmware and console-supported I/O options firmware. This document does not describe console firmware internals or console architecture.

1.1 Audience

The audience for this document is intended for individuals responsible for operating system installations and upgrades, for console firmware updates and for (console-supported) I/O options firmware updates.

1.2 Golden Rules on Updating Firmware

Update console firmware before installing or updating an operating system. After an operating system shutdown, always re-initialize the system before running the update utility.

1.3 Internet Access to Firmware

Internet access to console firmware.

www.compaq.com/support/ (click on ***Alpha Systems*** under the "***Downloadable Drivers & Utilities***" menu).

2 Read Me First

2.1 Console Changes This Release

The release notes and firmware are on the V6.5 Alpha Systems Firmware Update CD. This release contains the following:

- Bug fix to cure incompatibility between srm console version V6.4-56 and versions of srom earlier than v4.7.6
- Ability to update KGPSA firmware.
- New palcode, VMS V1.98-74, Unix V1.92-71

2.2 Operating System/Console Firmware Revision Matrix

The following matrix shows the minimum operating system version required with this console firmware release.

Table 2-1 AlphaServer DS20L Operating System and Firmware Revision Matrix

Firmware V6.5	**June 2003**
Operating System	
Tru64 Unix	V5.1A
Console Firmware	
SRM Version	V6.5

2.3 Known Anomalies

2.3.1 Reconfiguring fibre channel switches

If a fibre cable is moved from one fibre channel port to another, the console will need to be initialized before devices can be accessed via the new switch.

2.3.2 Messages from KGPSA devices

Messages similar to "retry ct pga0.0.0.2.6" may occur on systems that have KGPSA devices and are informational and do not represent an error. They result from rejected accesses to a busy fibre channel switch which are allowed and thus retried.

2.3.3 When the Console KGPSA Driver starts.

When the console KGPSA driver starts, you may see the error message "pga0.0.0.2.4 - Nvram read failed". See the WWIDMGR USERS MANUAL for information about formatting the NVRAM.

3 Firmware Update Procedure

This chapter explains how to invoke the Loadable Firmware utility [LFU] to update AlphaServer firmware from the SRM console. Firmware update information is also described in the User's Guide.

AlphaServer systems recently shipped may have a higher firmware revision than the firmware revision listed in this release. *Do not load firmware that is older than what is presently installed.* A higher firmware revision usually indicates support for the currently shipping operating system. The revision number of the console firmware and the Alpha Firmware CD are mutually exclusive.

A system reset or re-initialization should be done after the operating system is shut down and before the update utility is run.

NOTE TO LINUX USERS: If you have the environment variable "sysvar" set to 5 then you must set it to 12 and re-initialize before the update utility is run. After updating the firmware, reset sysvar to 5 and re-initialize before booting your operating system.

3.1 Update Firmware from the SRM Console

The following procedure shows how to update console firmware from a network device. Here, the file v62_shupdate.sys has already been copied to the MOP server.

Re-initialize the system	>>>init	
Boot from the network	>>> Boot eia0 –fi v62_shupdate –proto mop	Boot using MOP protocol
Type update	UPD> update srm	Update console firmware
Exit the LFU	UPD>exit	Exiting will initialize the system

Example updating firmware from the network:

>>> **boot eia0 –fi v62_shupdate –proto mop**

Trying MOP boot.

……..

Network load complete.

Host name: BESSIE

Host address: aa-00-04-06-74

bootstrap code read in base = 200000, image_start = 0, image_bytes = 156200
initializing HWRPB at 2000
initializing page table at 3ff48000
initializing machine state
setting affinity to the primary CPU
jumping to bootstrap code

***** Loadable Firmware Update Utility *****

Function Description

Display Displays the system's configuration table.
Exit Done exit LFU (reset).
List Lists the device, revision, firmware name,update rev
Update Replaces current firmware with loadable data image.
Verify Compares loadable and hardware images.
? or Help Scrolls this function table.

UPD> **update srm**

answer **Yes** to all questions then exit

UPD> **exit**

End of Example

The firmware is now loaded into ROM. Typing exit will reset the AlphaServer system which invokes the new firmware.

The following procedure shows how to update console firmware from a CD.

Insert Firmware CD into drive	>>> show device	Find the CD-ROM device ID e.g. dqb0
Re-initialize the system	>>>init	
Boot the Alpha Firmware CD	>>> Boot dqb0	Boot code determines the AlphaServer type
Press the Enter key after Bootfile:	Bootfile:	Press enter to use default firmware
Type update	UPD> update	Update console and i/o option firmware
Exit the LFU	UPD>exit	Exiting will initialize the system

Example updating firmware from CD:

>>> **boot dqb0** (Firmware CD is inserted in CD Drive)

block 0 of dqb0.0.1.16.0 is a valid boot block reading 989 blocks from dqb0.0.1.16.0
bootstrap code read in base = 156000, image_start = 0, image_bytes = 7ba00
initializing HWRPB at 2000
initializing page table at 148000
initializing machine state
setting affinity to the primary CPU
jumping to bootstrap code

[Release notes are displayed]

Bootfile: [press Enter-key]

eb.....ea.e9.e8.e7.e6.

***** Loadable Firmware Update Utility *****

Function Description

Display Displays the system's configuration table.
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Update Replaces current firmware with loadable data image.
Verify Compares loadable and hardware images.
? or Help Scrolls this function table.

UPD> **update srm**

answer **Yes** to all questions then exit

UPD> **exit**

End of Example

The firmware is now loaded into ROM. Typing exit will reset the AlphaServer system which invokes the new firmware.

3.2 Loadable Firmware Utility [LFU] Commands

The Loadable Firmware Utility is the mechanism to update console and I/O option firmware. This section describes the most commonly used LFU commands. Type HELP at the LFU prompt (UPD>) to list all LFU commands.

3.2.1 Update Command

Use the update command to update console and/or I/O option firmware.

UPD> **update** [update will update both console(s) and I/O option firmware]
UPD> **update <option-name>** e.g. >>> update ccmab02

3.2.2 List Command

Use the list command to show a list of memory-loaded images and currently supported flash ROMs. In the following example three devices are installed in a system that can be firmware-updated.

```
UPD> list
Device   Current Revision     Filename       Update Revision

srm          5.9                  srm_fw              6.2
UPD>
```