hp AlphaServer Management Release Notes V5.2.0
For AlphaServer ES47, ES80, GS1280, & GS80, GS160, GS320
Systems

# 1 Overview

## 1.1 About the AlphaServer Management System

The AlphaServer Management Station (AMS) system is a software application that allows you to manage one or more AlphaServer ES47/ES80/GS1280 and AlphaServer GS80/GS160/GS320 platforms.  The application runs on Alpha systems running Tru64 UNIX server/workstation or on other systems running a Linux Red Hat.

AMS enables you to monitor platform environmental status, monitor messages and event logs, to connect to the platform's management port and to boot and manage operating systems (configured on sub-partitions) on these platforms. You can access the application locally from an AMS station or access it remotely through a Web browser or a Telnet session.

AMS provides secure access between the corporate LAN and the private Multi-Server management LAN to which the AlphaServer platforms are connected.  You must have an account on the AMS machine and log in to it to access its functionality. The AMS kit contains the following:

- The Server Platform Manager (SPM), a client-server application. The server runs on the AMS and the client is a Web-based graphical user interface that provides remote platform management.
- The AlphaServer Management Utility (AMU), a client-server application. The server runs on the AMS and the client is a Web-based graphical user interface that allows you to view and monitor a particular platform in greater detail.
- The AlphaServer Partitioning Wizard (APW), a graphical application that simplifies the creation of partitions on ES47/ES80/GS1280 and GS80/GS160/GS320 platforms.
- The Platform Console Manager (PCM), a character-cell user interface that allows you to monitor and manage consoles over low bandwidth remote connections.
- The Console Management Facility (CMF), a utility that manages connections to consoles, and monitors and logs console output.
- Event Management for monitoring, logging, notification, and viewing of console events and GS80/GS160/GS320 platform alerts.
- The Apache Tomcat Web Server.

# 2 Changes this Release

### 2.1.1 AMS V5.2.0  Release

#### 2.1.1.1 New Features

- When the console manager deamon (cmfd) is not running, the string "Cmfd is not running" is displayed in the status field of all console properties dialogs. In addition to this, the console icons are also grayed out.
- The console properties dialog now includes a new field that shows the security setting for the console.

#### 2.1.1.2 Problems Fixed

- The Tru64 and OVMS Java memory issue that was causing the loss of ~ 2 MB of memory a day is resolved in the Java 1.4.2-5 release of the SDK. AMS 5.2 requires the installation of 1.4.2-5 on Tru64 and OpenVMS. The kits are available for download at http://h18012.www1.hp.com/java/alpha/.

- The console manager (cmfd) was using 100% of CPU time on Linux. Suspending the cmfd threads by 5 msecs resolved the issue.
- The console manager generated a fault when a platform's name containing a dash character generated an EVM event. The fault was caused because EVM does not allow a dash in an event name. The issue has been corrected

in the cmfd code by replacing a dash with an underscore, therefore the user is no longer required to modify existing platform names that may contain a dash.

- AMU did not display any hardware or partition information when a connection to the ES47, ES80, and GS1280 could not be re-established. Re-establishing the connection while the AMU client was running, would change the state from Error to OK, but the display was never updated to show the discovered hardware and partitions. This problem has been corrected and the AMU display is now being updated.

- SPM failed to display a large console log file because of memory limitations when transferring the file using SOAP. This has been resolved by accessing the file using its URL and transferring it via HTTP.

- The script to start/stop tomcat has been corrected to terminate when tomcat does not start because of missing installation of required components.If an MBM CLI receives a zero ration when request CPU frequency, the task may crash and lock up the MBM. Solution: Check all ratios for a zero value for frequency changes.

## 2.2 Known Issues

### 2.2.1 Issues that May be Addressed in a Future Release

- A full MBM log in flash memory causes the Tru64 Fast Virtual Machine (VM) to run out of memory when AMU retrieves and processes all the MBM log entries. This happens only after a tomcat start on a clean AMS/AMU installation, and after a platform with a full MBM log is added to the AMS/AMU. The classic VM which is the default for OVMS does not have this memory issue. For more information and workarounds for this problem, check the AMS troubleshooting page.

- If the AMS Tru64 OS is not running the latest service pack, a security warning window notifying about the expiration of the login applet's security certificate is displayed when you try to login in SPM. The login applet is part the Tru64 authentication server and installation of the latest Tru64 service pack updates the required certificate.

- Galaxy soft partitions on a GS80/GS160/GS320 AlphaServer will not be discovered by AMS if the soft partitions are running the OS during the initial discovery because it is an SRM command that provides soft partition information.

- We recommend that you do not issue any SCM commands while a GS80/GS160/GS320 system is powering up and running diagnostic tests. SCM commands issued during this phase may result in a power-on failure or false indication of component failure. Note that this is a limitation of the SCM firmware and not of AMS.

- Sometimes when a console window opens to a GS80/GS160/GS320 partition, it is in SCM instead of SRM or OS mode. This occurs because the APW server that monitors the platform checks the hardware state every 30 seconds. While APW is using the console, messages sent to the console by the OS or SRM will not be logged. Note that 30 seconds is the default refresh period and it can be modified using SPM.

- When the SCM port connection is lost because a non-AMS user has taken over the port, the GS80/GS160/GS320 state will be set to "Error" in SPM.

- If you try to refresh a GS80/GS160/GS320 platform while the SMC console's state is "Refused" because a non-AMS user has taken over the port and cmfd cannot access it, you may lose the platform's console configurations.

- APW displays a warning message for each port in the Terminal Server's port range that is not connected. If the range is modified in SPM, APW is not updated until a Tomcat server restart.

- On Tru64 in PCM's main window, the List of Systems column heading may not be redrawn when returning from another screen. The headings will only be redrawn when the cursor passes over each heading.

- On Tru64 in PCM's main window, the highlight bar indicating the selected console can sometimes become split between 2 adjacent console entries. In this case, the first half of the highlight bar will point to the actual selected console.

## 2.3 Change History

### 2.3.1 V5.1.0 Maintenance Release

AMS 5.1.0 is a maintenance release with no new features.

**2.3.1.1** Resolved Issues

- The AMS Console Manager Facility daemon crashes with a core dump when it generates an EVM event for a console whose platform name consists of an odd number of characters. With cmfd not running, users are unable to connect to any AMS configured consoles. This issue was introduced in AMS 5.0 and has been resolved in this release.
- While the AMS Tomcat server is running and the network does not experience any communication problems, the SPM client displays an error dialog with the message "Data from the server was not received correctly...." and terminates the session every time after it starts. This problem is the result of a timeout when the server retrieves the events from EVM and it occurs when EVM and channel log files are very large. The AMS server has been modified to retrieve only the events in the EVM log and not from the rest of EVM channels, for example bin and cron logs. The SPM client has also been modified to display a message and not terminate the session if an EVM log read timeout occurs.
- AMS 5.0 and greater require that the EVM Java Interface subset, OSFEVMJAVADEV540, must be installed on the Tru64 workstation. The Tru64 AMS 5.1 installer has been modified and the installation will terminate if this subset is not installed. Also note that the **Java SDK 1.3.1 must not be un-installed** because other Java applications depend on it. The Java 1.4.2-4.p2 kit is installed in a different directory and the two versions of Java can co-exist. The default Java environment variables must not be modified after the installation of Java 1.4.2.
- The Tru64 and OVMS Java 1.4.2-4 has been diagnosed with memory leak problems. These memory leaks cause the Tomcat Java container to run out of memory and Tomcat to stop after running for 2-3 weeks. A patch, 1.4.2-4.p2 that fixes a number of memory leaks is available at http://h18012.www1.hp.com/java/alpha/ and on the AMS 5.1 CD. The patch should replace all Tru64 and OVMS java 1.4.2-4 installations. Check the AMS advisory for patch details and installation instructions. The Known Issues section contains additional information about the Java SDK.
- In SPM client, an ES47, ES80 GS1280 platform is not deleted following a refresh operation on that platform.
- In SPM client the status of an ES47, ES80, GS1280 platform is not updated to reflect the current state when the AMS server either looses or re-establishes the connection to this platform.

### 2.3.2 AMS V5.0.0 Last Major Release

AMS Version 5.0.0 is the last major release of AMS and includes the following new features.

- For ES47/ES80/GS1280 - Alerts that are generated by the SMLAN firmware are now forwarded to event manger [EVM] then logged and archived by EVM. The user can be notified of these alerts by configuring EVM to send a notification via e-mail or pager when it receives an AMS event.

- SPM has been enhanced to display the latest EVM events in the main window. The display is dynamic and shows an event seconds after it has occurred.

- The AMS/AMU kits have been compiled using Java 1.4.2. The AMS workstations must have Java upgraded before you install AMS 5.0. Check the installation instructions for specific version numbers required for each supported OS. For convenience, the CD and CD image now include the Java kits required for each supported OS.

- AMS 5.0 must be installed on Red Hat Enterprise Linux 3.0. Red Hat Linux 7.3 is no longer supported.

- AMS workstations running Tru64 <u>must</u> be upgraded to 5.1B-2. This is a requirement for running the AMS server under Java 1.4.2.

### 2.3.3 AMS V4.1.1 Maintenance Release

AMS 4.1.0 is a maintenance release with no new features. This release resolves a single issue and affects only GS80/GS160/GS320 environments managed by the AMS. In environments where AMS is used to manage only ES47/ES80/GS1280 AlphaServers, version 4.1.0 is equivalent to version 4.0.0 and need not be updated.

**2.3.3.1** Problems Fixed

- A hard or soft power-up of GS80/GS160/GS320 AlphaServers when configured as platforms in the AMS environment could produce false hardware and environmental errors, causing the AlphaServer to fail to power-up. The failure was caused by the AMS monitoring software while issuing SCM firmware commands during the power up diagnostic testing. The problem was addressed and fixed in this release of the AMS.

The SPM hardware status display area will now display the following:

- "Platform is powering up - data shown might be outdated". This message displays while the GS80/GS160/GS320 is powering up and until all the partition consoles are running the SRM firmware, approximately 7 min. * number of hard partitions. AMS does not monitor the platform during this time.
- "The master port is in use - data shown might be outdated". This message displays while an AMS user has an opened connection to the SCM port. AMS cannot obtain status and configuration information whiles the SCM port is in use.

### 2.3.4 AMS V4.0.0

New features:

**Console Data Log (CDL) File Generation using AMU**

- On ES47/ES80/GS1280 platforms, the MBM firmware allows an external source such as AMU to request the CDL data from the PMU. CDL data files that could only be generated on a partition while an OS is running can now be retrieved and saved on the AMS server using AMU, independent of the state of the OS running on a partition. The CDL files generated by AMU have the same format as the ones generated on the OS and they can be analyzed using SEA.

**Asynchronous SMLAN Firmware Alerts Support in AMU**

- ES47/ES80/GS1280 MBM firmware version V2.3-7 and later supports the generation of asynchronous alerts for hardware errors and configuration changes. Alerts with firmware assigned severity are generated when hardware components fail hardware or partition configurations change, and environmental sensors report out-of-spec values.

- AMU has added an alert table in the Main window to display incoming alerts. The alert table includes the time the alert occurred, the severity and description of the alert, and the component that is the source to the alert. The last, is a link to the Properties window of the component where the user may find additional information.

- AMU version 4.0 is backwards compatible with firmware versions 2.3-6 and older.

**Copy Support in SPM's Log File Viewer**

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- A new Copy to Clipboard button has been added to SPM's Console Log File Viewer that allows you to copy from the log display into an editor on the client computer.

**New Add Platform Windows in PCM**

- A new window, Add Platform: Specify Type lets you select an ES47/ES80/GS1280 or a GS80/GS160/GS320 platform. Depending on your choice, a dialog box asking for information about that platform type is displayed.

**Updated MBM Event Definition File**

- Several MBM error patterns have been added in the MBM event definition file. The AMS installation scripts install the new file into /usr/opt/ams/events/mbm.event. If the installation is an upgrade, the current mbm.event is saved as mbm.event.old before the new file is copied.

**Extensive AMS Troubleshooting section in the AMS User Guide**

- The User Guide has been updated to include the 4.0 features. Additionally, the Troubleshooting section (Appendix A) has been extended with AMS troubleshooting information. The Log Files section in Appendix C has also be rewritten to provide comprehensive AMS log file information.

## 2.3.4.1 Problems fixed in AMS V4.0.0

- A stack overflow would occur in the AMS server's JVM when the MBM's NVRAM log was full or almost full. The overflow caused Tomcat to stop responding to client requests.
- The AMU client would fail to complete SMLAN requests when re-launched after it had been forced to close by SPM during a Refresh from the Web Browser's menu.
- The AMU client in stand alone mode would hang when the displayed platform configuration was removed in the Visual Editor.
- The AMU client failed to display CMM error information when the error icon was selected in hardware view's system drawer.
- A reboot of a GS80/GS160/GS320 partition running an OS would bring the OS down, but it would not boot it up unless a console window to the OS was open.
- On GS80/GS160/GS320 consoles, OS or SRM output would not to be logged into the console log files unless a window to the console was open. The problem has been resolved; however some console output may still be missed. Check the known issues list for more details.