AlphaServer Management Station

Installation Instructions for Linux Systems

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Product Version: AlphaServer Management Station *Version 5.2*

These instruction will guide you through the process of installing the AlphaServer Management Station (AMS) and the AlphaServer Management Utility (AMU) on a PC running the Linux operating system. The instructions describe the process of installing the applications from a CD-ROM and from a file that you download from the AMS Web site:

ftp://ftp.digital.com/pub/Digital/Alpha/firmware/interim/ams/index.html

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Installing AMS

The following sections describe the system requirements and steps you need to perform in install the AlphaServer Management Station.

1.1 Hardware and Software Requirements

Before you begin the installation, make sure that your hardware and software meet the following minimum requirements:

Hardware Requirements

- Any Intel PC 500 MHz or greater
- 512 MB of RAM
- Two network interface cards
- 4 GB of free disk space
- 1.0 GB of swap space
- Depending upon the existing configuration of the platform, you may need a separate computer (a desktop or laptop) to connect to and configure the Network Address Translation (NAT) box included with the AlphaServer ES47, ES80, and GS1280 platform box so the AMS can communicate with the platform. See the installation instructions that came with your AlphaServer for specific information.

Software Requirements:

- Red Hat Enterprise Linux 3.0 Workstation (update 5 or greater)
- Mozilla 1.4 or higher
- Sun's Java JRE 1.4.2_11
- Sun's Java Plug-In 1.4.2_11

Software Needed to Access Remotely

To access the AMS remotely from a browser on a PC, your PC must include one of the following browsers and appropriate Java software:

- One of the following:
  - Netscape 6 or higher
  - Microsoft Internet Explorer 5.5 or higher
  - Mozilla 1.1 or higher
- Sun's Java JRE and Java Plug-In 1.4.2_*

1.2 Preserving Information from a Previous AMS Installation

If your system currently includes a previous AMS installation, you can preserve information from it. The procedure for doing this and the type of information you can save depends whether your system is running ReadHat Enterprise Linux Workstation Version 3.0 or an earlier Red Hat Linux version.

1.2.1 Systems Running Prior Linux Versions

If you are running an earlier version of Red Hat Linux, you must install Red Hat Enterprise Linux 3.0 Workstation before installing AMS 5.2. If you have a previous AMS version installed, you can retain its configuration of platforms and consoles by saving the `/usr/opt/ams/config/SystemMap.xml` file onto a disk or network share before installing Enterprise 3.0.

You can then restore the `SystemMap.xml` file after Enterprise 3.0 and AMS 5.2 are installed. The steps for restoring this file are described in the AMS installation procedure you select (Section 1.6 or Section 1.7).

HP also recommends that you archive the `cmfd` console log files found under the `/usr/opt/ams/logs/cmf.dated` directory.

1.2.2 Systems running Enterprise 3.0

If your system is running Red Hat Enterprise Linux 3.0 Workstation and you have a previous version of AMS installed, you can perform an upgrade installation or a clean installation of the new program. An upgrade installation preserves the configuration settings and log files of the existing installation, while a clean installation does not.

- Upgrade installation

  To preserve the existing settings, uninstall the existing AMS version as described in Section 1.4, but retain the existing `/usr/opt/ams` directory.

- Clean installation

  To perform a clean installation, uninstall the existing AMS version as described in Section 1.4 and then remove the `/usr/opt/ams` directory, as described later in that section. Doing this will cause you to lose your previous AMS settings.

1.3 Determine If AMS Is Installed

If you are unsure whether a previous version of AMS exists on your system, take the following steps:

1. To determine if the AMS software was previously installed:

   ```
   # /bin/rpm -q  AMS
   ```

   If no instance of AMS software was previously installed, this command returns:

   ```
   package AMS is not installed
   ```

2. To determine if the SUIT software was previously installed:

   ```
   # /bin/rpm -q SUIT
   ```

   If no instance of SUIT software was previously installed, this command returns:

   ```
   package SUIT is not installed
   ```

3. To determine if the EVM software was previously installed:

   ```
   # /bin/rpm -q EVM
   ```

   If no instance of EVM software was previously installed, this command returns:

   ```
   package EVM is not installed
   ```

4. To determine if the AMU software was previously installed:

   ```
   # /bin/rpm -q AMU
   ```

   If no instance of the AMU software was previously installed, it returns:

   ```
   package AMU is not installed
   ```

1.4 Removing an installation

The following steps describe how to remove existing applications if you want to perform a clean, new installation. Note that the three AMS software kits have dependencies, which means they must be removed in the reverse order in which they were installed.

1. Log in as superuser or root on the Linux system that you designate to be the AMS.
2. Remove any installed version of the AMS or AMU.

   a. To remove the AMS:

   ```
   # /bin/rpm -e AMS
   ```

   b. To remove the SUIT:

   ```
   # /bin/rpm -e SUIT
   ```

   c. To remove the EVM:

   ```
   # /bin/rpm -e EVM
   ```

   d. To remove the AMU:

   ```
   # /bin/rpm -e AMU
   ```

   See `rpm(8)` for more information on `rpm`.

3. Remove the directories:

   To remove the AMS directory:

   ```
   # rm -rf /usr/opt/ams
   ```

   To remove the AMU directory:

   ```
   # rm -rf /usr/opt/amu
   ```

1.5 The AMS Software Packages and Order of Installation

The AlphaServer Management Station (AMS) for Linux consists of three separate RPM kits. You must install all three kits and install them in a specific order because of dependencies that each kit has on the others. The following list specifies the kits and the order in which they must be installed:

1. Event Management kit (`EVM-5.2.0-1.0.i386.rpm`)

   Provides the means for AMS to post, track, and report events. See the *AlphaServer Management Station User's Guide* for a more detailed description.

2. User interface tools (`SUIT-5.2.0-1.0.i386.rpm`)

   A set of tools used to provide user authentication and interface of the Platform Console Manager (PCM) user interface. See the *AlphaServer Management Station User's Guide* for a description of PCM.

3. The AlphaServer Management station software (`AMS-5.2.0-1.0.i386.rpm`)

In addition to these three kits, AMS also requires the installation of Java JRE 1.4.2_11. Install Java before the AMS kits are installed.

Before you install AMS, you need to resolve dependencies by creating a symbolc link to the tcl library as follows:

```
# ln -s /usr/lib/libtcl8.3.so /usr/lib/libtcl.so
```

1.6 Installing from CD-ROM

The following steps describe how to install AMS from the CD-ROM. If you have an existing installation of the AMS software on your system, this procedure will preserve the AMS configuration and log file directories (`/usr/opt/ams/config`

and /usr/opt/ams/logs) and their contents, with the exception of the *.template and *.sample files in the config directory, which will be updated.

If you want to remove the existing version before installing the current kit, follow the steps in Section 1.4 before beginning the installation.

1. Log in as superuser or root on the Linux system that you designate to be the AMS.
2. If you are upgrading to a newer version of the AMS software, you must first stop the AMS daemon processes before installing the kit. (See Section 1.3 for instructions on how to determine if AMS is installed on your system.)

   To stop the daemon processes, enter the following commands:

   - To stop EVM:

     ```
     # /etc/init.d/evm stop
     ```

   - To stop the authentication daemon:

     ```
     # /etc/init.d/smauth stop
     ```

   - To stop the cmf daemon:

     ```
     # /etc/init.d/cmfd stop
     ```

   - To stop Tomcat:

     ```
     # /etc/init.d/amstomcat stop
     ```

3. Insert the Server Management CD into the CD-ROM drive and mount it. For example:

   ```
   # /bin/mount /dev/cdrom /mnt/cdrom
   ```

4. Install the AMS software as follows:

   - To install the EVM kit, issue the following command and follow the on-screen instructions:

     ```
     # /bin/rpm -U /mnt/cdrom/Linux/AMS/EVM-5.2.0-1.0.i386.rpm
     ```

   - To install the SUIT kit, issue the following command and follow the on-screen instructions:

     ```
     # /bin/rpm -U /mnt/cdrom/Linux/AMS/SUIT-5.2.0-1.0.i386.rpm
     ```

   - To install the AMS kit, issue the following command and follow the on-screen instructions:

     ```
     # /bin/rpm -U /mnt/cdrom/Linux/AMS/AMS-5.2.0-1.0.i386.rpm
     ```

   See rpm(8) for more information on rpm.

5. If you saved the SystemMap.xml file to preserve platform and console configurations from a previous AMS installation (see Section 2.2), copy the saved file into the /usr/opt/ams/config directory before you start cmfd and Tomcat. If you copy the file while cmfd and Tomcat are running, you need to restart them by issuing the following commands:

   ```
   # /etc/init.d/amstomcat restart
   # /etc/init.d/cmfd restart
   ```

6. Unmount the CD: For example:

   ```
   # /bin/umount /mnt/cdrom
   ```

   You can now remove the CD from the drive.

7. Before accessing the application, see the appropriate sections of Chapter 1 and Chapter 2 of the AlphaServer Management Station User's Guide for information about configuring and accessing the AMS software.

1.7 Installing the File Downloaded from the Web

The following steps describe how to install AMS from a file downloaded from the Web. If you have an existing installation of the AMS software on your system, this procedure will preserve the AMS configuration and log file directories (`/usr/opt/ams/config` and `/usr/opt/ams/logs`) and their contents, with the exception of the `*.template` and `*.sample` files in the `config` directory, which will be updated.

If you want to remove the existing version before installing the current kit, follow the steps in Section 1.4 before beginning the installation.

1. Log in as superuser or root on the Linux workstation that you designate to be the AMS.
2. Create a temporary directory to store the file to be downloaded. For example:

   ```
   # mkdir /tmp/amskit
   ```

3. Using your Web browser, download the software kit you want to install from the following site and save it to the directory you created in the previous step.

   ```
   ftp://ftp.digital.com/pub/Digital/Alpha/firmware/interim/ams/index.html
   ```

4. Extract the kit. For example:

   ```
   # tar xvf /tmp/amskit/AMS5.2.0-linux.tar
   ```

5. If you are upgrading to a newer version of the AMS software, you must first stop the AMS daemon processes before installing the kit. (See Section 1.3 for instructions on how to determine if AMS is installed on your system.)

   To stop the daemon processes, enter the following commands:

   - To stop EVM:

     ```
     # /etc/init.d/evm stop
     ```

   - To stop the authentication daemon:

     ```
     # /etc/init.d/smauth stop
     ```

   - To stop cmf daemon:

     ```
     # /etc/init.d/cmfd stop
     ```

   - To stop Tomcat:

     ```
     # /etc/init.d/amstomcat stop
     ```

6. Install the AMS software as follows:

   - To install the EVM kit, issue the following command and follow the on-screen instructions:

     ```
     # /bin/rpm -U /tmp/amskit/EVM-5.2.0-1.0.i386.rpm
     ```

   - To install the SUIT kit, issue the following command and follow the on-screen instructions:

     ```
     # /bin/rpm -U /tmp/amskit/SUIT-5.2.0-1.0.i386.rpm
     ```

   - To install the AMS kit, issue the following command and follow the on-screen instructions:

     ```
     # /bin/rpm -U /tmp/amskit/AMS-5.2.0-1.0.i386.rpm
     ```

   See `rpm`(8) for more information on `rpm`.

7. If you saved the `SystemMap.xml` file to preserve platform and console configurations from a previous AMS installation (see Section 2.2), copy the saved file into the `/usr/opt/ams/config` directory before you start `cmfd` and Tomcat. If you copy the file while `cmfd` and Tomcat are running, you need to restart them by issuing the following commands:

```
# /etc/init.d/amstomcat restart
# /etc/init.d/cmfd restart
```

8. You can now delete the `/tmp/amskit` directory.
9. Before accessing the application, see the appropriate sections of Chapter 1 and Chapter 2 of the AlphaServer Management Station User's Guide for information about configuring and accessing the AMS software.

1.8 Configuration and Startup

Once AMS has been installed, you must complete the following configuration steps:

1. Define the location of the Java JRE in the `/etc/sysconfig/ams` file.

   You do this by setting JAVA_HOME to the top level Java installation directory so that `$JAVA_HOME/bin` is the location of the Java JRE binaries. For example:

   ```
   JAVA_HOME=/usr/java/j2re1.4.2_11
   ```

2. Configure the Java plug-in, as follows:

   ```
   # ln -s /usr/java/j2re1.4.2_11/plugin/i386/ns610-gcc32/libjavaplugin_oji.so \
   /usr/lib/mozilla/plugins
   ```

3. Add users authorized to access AMS to the `amsuser` group in the `/etc/group` file.

   The `amsuser` group is created during the AMS installation, but users are not automatically assigned to the group. Only root and members of the `amsuser` group can run the AMS software.

4. To allow root login into SPM you must add the string `ams` to the `/etc/securetty` file
5. Because the EVM Events Viewer requires that the `suitjd` daemon be running, you need to add the name and the port of the `suitjd` daemon to the `/etc/services` file. The entry would be similar to the following:

   ```
   suitjd  3354/tcp
   ```

   Save the `/etc/services` file and reload the `xinetd` daemon:

   ```
   # /etc/rc.d/init.d/xinetd reload
   ```

After completing these configuration steps, you must start the AMS daemons if you did not start them as described during the installation of the AMS rpms. The processes will start automatically with a reboot, but you can start them manually. To do this, log in as root or superuser and issue the following commands:

- Start EVM:

  ```
  # /etc/init.d/evm start
  ```

- Start the authentication daemon:

  ```
  # /etc/init.d/smauth start
  ```

- Start cmf daemon:

  ```
  # /etc/init.d/cmfd start
  ```

- Start Tomcat:

  ```
  # /etc/init.d/amstomcat start
  ```

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Installing AMU

The following sections describe the system requirements and steps you need to perform in install the AlphaServer Management Utility.

2.1 Hardware and Software Requirements

Before you begin the installation, make sure that your hardware and software meet the following minimum requirements:

Hardware Requirements

- Any Intel PC 500 MHz or greater
- 512 MB of RAM
- A network interface card
- 4 GB of free disk space
- 1.0 GB of swap space
- Depending upon the existing configuration of the platform, you may need a separate computer (a desktop or laptop) to connect to and configure the Network Address Translation (NAT) box included with the AlphaServer ES47, ES80, and GS1280 platform box so the AMS can communicate with the platform. See the installation instructions that came with your AlphaServer for specific information.

Software Requirements

- Red Hat Enterprise Linux 3.0 Workstation (update 5 or greater)
- Mozilla 1.4 or higher
- Sun's Java JRE 1.4.2_11
- Sun's Java Plug-In 1.4.2_11

Software Needed to Access Remotely:

To access the AMU remotely from a browser on a PC, your PC must include one of the following browsers and appropriate Java software:

- One of the following:
  - Netscape 6 or higher
  - Microsoft Internet Explorer 5.5 or higher
  - Mozilla 1.1 or higher
- Sun's Java JRE and Java Plug-In 1.4.2_*

2.2 Preserving Information from a Previous AMU Installation

If your system currently includes a previous AMU installation, you can preserve information from it. The procedure for doing this and the type of information you can save depends whether your system is running ReadHat Enterprise Linux Workstation Version 3.0 or an earlier Red Hat Linux version.

2.2.1 Systems Running Prior Linux Versions

If you are running an earlier version of Red Hat Linux, you must install Red Hat Enterprise Linux 3.0 Workstation before installing AMU 5.2. If you have a previous AMU version installed, you can retain its configuration of platforms by saving the file `/usr/opt/amu/tomcat/webapps/mpmu/WEB-INF/data/Configuration.xml` onto a disk or network share before installing Enterprise 3.0.

You can then restore the `Configuration.xml` file after Enterprise 3.0 and AMU 5.2 are installed. The steps for restoring this file are described in the AMU installation procedure you select (Section 2.5 or Section 2.6).

2.2.2 Systems running Enterprise 3.0

If your system is running Red Hat Enterprise Linux 3.0 Workstation and you have a previous version of AMU installed, you can perform an upgrade installation or a clean installation of the new program. An upgrade installation preserves the configuration settings and log files of the existing installation, while a clean installation does not.

- Upgrade installation

  To preserve the existing settings, uninstall the existing AMS version as described in Section 1.4 but retain the existing `/usr/opt/amu` directory.

- Clean installation

  To perform a clean installation, uninstall the existing AMS version as described in Section 1.4 and then remove the `/usr/opt/amu` directory, as described later in that section. Doing this will cause you to lose your previous AMS settings.

2.3 Determine If AMS or AMU Is Installed

If you are unsure whether a previous version of AMS or AMU exists on your system, take the following steps:

1. To determine if the AMS software was previously installed:

   ```
   # /bin/rpm -q  AMS
   ```

   If no instance of AMS software was previously installed, this command returns:

   ```
   package AMS is not installed
   ```

2. To determine if the SUIT software was previously installed:

   ```
   # /bin/rpm -q SUIT
   ```

   If no instance of SUIT software was previously installed, this command returns:

   ```
   package SUIT is not installed
   ```

3. To determine if the EVM software was previously installed:

   ```
   # /bin/rpm -q EVM
   ```

   If no instance of EVM software was previously installed, this command returns:

   ```
   package EVM is not installed
   ```

4. To determine if the AMU software was previously installed:

   ```
   # /bin/rpm -q AMU
   ```

   If no instance of the AMU software was previously installed, it returns:

   ```
   package AMU is not installed
   ```

2.4 Removing an installation

The following steps describe how to remove existing applications if you want to perform a clean, new installation. Note that the three AMS software kits have dependencies, which means they must be removed in the reverse order in which they were installed.

1. Log in as superuser or root on the Linux system that you designate to be the AMS.
2. Remove any installed version of the AMS or AMU as follows:

   a. To remove the AMS, issue the following command:

      ```
      # /bin/rpm -e AMS
      ```

   b. To remove the SUIT, issue the following command:

      ```
      # /bin/rpm -e SUIT
      ```

   c. To remove the EVM, issue the following command:

      ```
      # /bin/rpm -e EVM
      ```

   d. To remove the AMU, issue the following command:

      ```
      # /bin/rpm -e AMU
      ```

      See `rpm(8)` for more information on `rpm`.

3. Remove the directories:

   To remove the AMS directory:

   ```
   # rm -rf /usr/opt/ams
   ```

   To remove the AMU directory:

   ```
   # rm -rf /usr/opt/amu
   ```

2.5 Installing from a CD-ROM

The following steps describe how to install AMU from the CD-ROM.

If you have an existing installation of the AMU software on your system, this procedure will preserve the `Configuration.xml` file that contains the platforms configured to be managed by the AMU.

If you want to remove an existing version of the AMS/AMU software before installing the current kit, follow the steps in Section 2.4 before beginning the installation.

1. Log in as superuser or root on the Linux system.
2. If you are upgrading to a newer version of the AMU software, you must first stop the Tomcat daemon process before installing the kit. (See Section 2.3 for instructions on how to determine if AMS or AMU is installed on your system.)

   To stop Tomcat, enter the following command:

   ```
   # /etc/init.d/amutomcat stop
   ```

3. Insert the Server Management CD-ROM into the CD-ROM drive and mount it. For example:

   ```
   # /bin/mount /dev/cdrom /mnt/cdrom
   ```

4. Issue the following command and follow the on-screen instructions to install the AMU software:

   ```
   # /bin/rpm -U /mnt/cdrom/Linux/AMU/AMU-5.2.0-1.0.i386.rpm
   ```

   See `rpm(8)` for more information on `rpm`.

5. If you saved the `Configuration.xml` file to preserve platform configurations from a previous AMU installation (see Section 2.2), copy the saved file into the `/usr/opt/amu/tomcat/webapps/mpmu/WEB-INF/data` directory after your have started Tomcat..

   Then restart Tomcat with the following command:

   ```
   # /etc/init.d/amutomcat restart
   ```

6. Unmount the CD-ROM: For example:

   ```
   # /bin/umount /mnt/cdrom
   ```

   You can now remove the CD-ROM from the drive.

7. Before accessing the application, see the appropriate sections of Chapter 1 and Chapter 3 of the *AlphaServer Management Station User's Guide* for information about configuring the AMU software.

2.6 Installing the File Downloaded from the Web

The following steps describe how to install the AMU from a file downloaded from the Web.

If you have an existing installation of the AMU software on your system, this procedure will preserve the `Configuration.xml` file that contains the platforms configured to be managed by the AMU.

If you want to remove an existing version of the AMS/AMU software before installing the current kit, follow the steps in Section 2.4 before beginning the installation.

1. Log in as superuser or root on the Linux server that you designate to be the AMU.
2. Create a temporary directory to store the file to be downloaded. For example:

   ```
   # mkdir /tmp/amukit
   ```

3. Using your Web browser, download the software kit you want to install from the following site and save it to the directory you created in the previous step.

   ```
   ftp://ftp.digital.com/pub/Digital/Alpha/firmware/interim/ams/index.html
   ```

4. Extract the kit. For example:

   ```
   # tar xvf /tmp/amukit/AMU5.2.0-linux.tar
   ```

5. If you are upgrading to a newer version of the AMU software, you must first stop the Tomcat daemon process before installing the kit. (See Section 2.3 for instructions on how to determine if AMS or AMU is installed on your system.)

   To stop Tomcat, enter the following command:

   ```
   # /etc/init.d/amutomcat stop
   ```

6. To install AMU, issue the following command and follow the on-screen instructions:

   ```
   # /bin/rpm -U /mnt/tmp/amukit/AMU-5.2.0-1.0.i386.rpm
   ```

   See `rpm(8)` for more information on `rpm`.

7. If you saved the `Configuration.xml` file to preserve platform configurations from a previous AMU installation (see Section 2.2), copy the saved file into the `/usr/opt/amu/tomcat/webapps/mpmu/WEB-INF/data` directory after your have started Tomcat..

   Then restart Tomcat with the following command:

   ```
   # /etc/init.d/amutomcat restart
   ```

8. You can now delete the `/tmp/amukit` directory.

9. Before accessing the application, see the appropriate sections of Chapter 1 and Chapter 3 of the *AlphaServer Management Station User's Guide* for information about configuring the AMU software.

2.7 Configuring Java and Starting Up

Before using the AMU, you must define the location of the Java as follows:

1. Define the location of the Java JRE in the `/etc/sysconfig/ams` file.

   You do this by setting JAVA_HOME to the top level Java installation directory so that `$JAVA_HOME/bin` is the location of the Java JRE binaries. For example:

   ```
   JAVA_HOME=/usr/java/j2re1.4.2_11
   ```

2. Configure the Java plug-in, as follows:

   ```
   # ln -s /usr/java/j2re1.4.2_11/plugin/i386/ns610-gcc32/libjavaplugin_oji.so \
   /usr/lib/mozilla/plugins
   ```

After completing these configuration steps, you must start the Tomcat Web Server processes. The process starts automatically with a reboot, but you can start it manually. To do this, log in as root or superuser and issue the following command:

```
# /etc/init.d/amutomcat start
```