MSA1000 Support Software Installation under Linux

> Prerequisites

- · Host computer must have the supported Host Bus Adapter (HBA) installed:
  > FCA2214 Host Bus Adapter

- · Host computer must be running one of the following Linux versions:
  > Red Hat Linux 7.2 Professional (2.4.7-10 or 2.4.9-34)
  > Red Hat Linux Advanced Server 2.1 (2.4.9-e.3 or 2.4.9-e.12)
  > SuSE Linux Enterprise Server 7 (2.4.7-64GB or 2.4.18-64GB)

  NOTE: When using Secure Path software, the SMP version of the kernel is required.

- · Host computer must have the kernel source and the kernel headers installed.

- · Host computer must be running Netscape Navigator 4.76 or later.

- · Host computer must have Java 2 Runtime Environment installed and enabled. You can obtain the Java Plug-in for your Linux operating system from the Web.

  NOTE: The supported HBA is tested and qualified on additional server platforms such as IBM and Dell.

> HBA Driver Installation under Linux

Because this process involves updating your configuration for the MSA1000, HP recommends performing this task during inactive periods

After the HBA driver is installed, it will automatically load on each system boot and will provide optimized support for Secure Path multi-path storage configurations as well as single-path storage configurations.

Two methods are available for loading the HBA driver:

- · Using the provided RPM file (recommended)
- · Compiling a driver from source code

Each method is discussed in the following sections.

Using the Provided RPM File

1. Install the HBA(s) in the server, power on the server, and start up your Linux operating system. If LUNS are already being presented on the MSA1000 (as in doing a server upgrade or move), leave the MSA1000 disconnected during this process. If the MSA1000 is unconfigured, the MSA1000 can be physically connected to the SAN.

2. From the console, log on as the root user.

3. Download the provided spfcamsa1000.tar file to your server

4. From the console, extract the contents of the tar file to a temporary directory.

5. List the contents of the directory and identify the RPM file for your distribution of Linux.

6. Install the FCA2214 HBA driver on the new kernel by entering:

   rpm -Uvh *rpm filename*
   where *rpm filename* is the name of the rpm file for your distribution of Linux.

   After a few minutes, the following messages are displayed:

   Attempting to load qla2200 ..... FAILED
    Attempting to load qla2300 ..... OK

7. For Red Hat Linux 7.2 Professional and Red Hat Linux Advanced Server 2.1, run the provided script to modify the SCSI blacklist.

   a. Navigate to the */opt/hp/storage_drivers/qla604/utils* directory.

   b. Enter the command scriptname edit_initrd.redhat

Follow the on-screen instructions to complete the update.

8. You may now delete the contents of the temporary directory and reboot your Linux server now or proceed with other installation procedures and reboot your server later. You may also connect the MSA1000 to the HBA or the HBA's to the SAN at this time.

Compiling a Driver from Source Code

If you need to build your own FCA2214 HBA driver module from source code or manually patch the Linux kernel, refer to *InstallNotes.txt* located in the spfcamsa1000.tar file downloaded in the previous section.

> Storage Configuration under Linux

Both the Command Line Interface (CLI) and the Array Configuration Utility (ACU) are available to configure the MSA1000 storage.

If you plan to use the CLI to configure the MSA1000 storage, refer to the *HP StorageWorks Modular SAN Array 1000 User Guide* for setup and use information.

The Host Mode option must be set to Linux on your MSA1000 during the storage configuration process. The Linux host mode can be configured by using CLI or the Selective Storage Presentation (SSP) option in ACU. Refer to the *HP StorageWorks Modular SAN Array 1000 User Guide* for more information

If you plan to use the ACU to configure the MSA1000 storage, refer to the following steps for installation instructions.

To install the ACU on the server

1. Download the XXXXXXX RPM package to your server, where XXXXXX.rpm is the correct installation RPM for your platform.

2. Install the ACU by entering:

   rpm -Uvh *rpm XXXXXXXXXX*

   NOTE Warning messages regarding driver version dependencies may be displayed. These messages do not affect the MSA1000 and may safely be ignored.

3. From the console, enable or disable remote access to the ACU by entering:

   For remote access, enter: /usr/sbin/cpqacuxe -R

   For remote access, enter: /usr/sbin/cpqacuxe -d

   The ACU runs as a background daemon.

To launch the ACU

1. From the console, enter netscape to start Netscape Navigator.

2. *For a local connection,* enter the address http://127.0.0.1:2301.

   For a remote connection, enter http://*SERVER ID*:2301
   where *SERVER ID* is the name or IP address of the host running the ACU.

3. Accept the site certificate.

4. If a Management home page is displayed, click **Array Configuration Utility**.

5. Enter a user name and password with administrator rights and click **OK**.

   Initially, the default Administrator password is compaq.

   The Array Configuration Utility opens and begins detecting the controllers that are attached to your system. This may take a few minutes.

   When controller detection is complete, a new ACU page is displayed.

6. Click **MSA1000 Controller** on the left column to begin the configuration.

7. To stop the ACU, enter the following command at the console:

   /usr/sbin/cpqacuxe -stop

8. Reboot your server.

NOTE: You must reboot your server before the newly added LUNs will be visible to the operating system.