Quick Setup Guide

RAID Array 8000/ESA12000 Fibre Channel Storage Subsystem for Hewlett Packard HP-UX
In this Quick Setup Guide we tell you how to create an initial hardware configuration for both the Compaq StorageWorks RAID Array 8000 Fibre Channel Storage Subsystem and the Compaq StorageWorks Enterprise Storage Array 12000 Fibre Channel Storage Subsystem (the “RA8000/ESA12000 storage subsystem” or the “storage subsystem”).

To create this configuration you will:

• Install Storage Building Blocks (SBBs) and Program Cards in the RA8000/ESA12000 storage subsystem cabinet;

• Install a fibre channel adapter in the server;

• Connect the fibre channel adapter to the storage subsystem HSG80 controller via a fibre channel hub;

• Turn on the ac power to the storage subsystem;

• Install the StorageWorks software.

• Install the StorageWorks Command Console (SWCC) Client Graphical User Interface;

• Launch the Client

• Verify Controller Properties

• Configure a Storageset.

Before you start these steps follow the instructions on the shipping container to unpack the RA8000/ESA12000 storage subsystem. Then move the storage subsystem to the operating location you have selected. Refer to the RA8000/ESA12000 Storage Subsystem User’s Guide, EK–SMCPR–UG. A01 (387404-001) for information about selecting a location.

The instructions for installing and connecting storage subsystem components are given for the SW370 pedestal, but apply equally to other Compaq cabinet options. Depending on the storage subsystem you have ordered, you might have to install the storage subsystem in a cabinet and connect the cache module to a cache battery. Refer to the User’s Guide for more information.

NOTE
Install the SBBs and Program Cards

1. **Install the SBBs in the RA8000/ESA12000 Storage Subsystem Cabinet**
   - Insert an SBB into the shelf guide slots and slide the SBB into the shelf until the mounting tabs snap into place.
   - For optimum SCSI bus distribution, install the SBBs from left-to-right and from bottom-to-top.

2. **Install the PCMCIA Card in the HSG80 Controller**
   - Remove the ESD cover from the controller PCMCIA slot.
   - Insert the PCMCIA card in the controller slot.
   - Replace the ESD cover over the controller slot.
   - Repeat the steps if you have two controllers.
2 Install the Fibre Channel Adapter

Turn Off the Server

- Shut down the operating system running on your server.
- Turn off the power to the server and all attached peripherals.
- Disconnect power cables from the server.

NOTE: Your adapter might not look like this.

Insert the Adapter in the Server

- Open the server to gain access to the expansion slots.
- Insert the adapter in an empty HSC expansion slot.

NOTE
Refer to the HP Fibre Channel Mass Storage Adapters Service and User’s Manual (HP A3636-90002) for more information.

- Secure the adapter in the slot with the screw provided.
Connect the fibre channel adapter to the hub and the hub to the storage subsystem controller with the fiber-optic cables supplied.

**Be sure to install a GBIC–SW module on the hub end of each cable.**

The following page illustrates the adapter-to controller connections for the four possible configurations:

- single controller, one server
- single controller, two servers
- dual controller, one server
- dual controller, two servers
Connect the Fibre Channel Adapter to the Subsystem Controller (Cont’d)

1. Single Controller, One Server
2. Dual Controller, One Server
3. Single Controller, Two Servers
4. Dual Controller, Two Servers
4 Turn on the Subsystem Power

Connect the Hub to an AC Power Outlet

• Connect one end of the hub ac power cord to the hub.

• Connect the other end of the ac power cord to an ac outlet.

Turn on the Storage Subsystem Power

• Connect one end of the storage subsystem cabinet ac power cord to the cabinet ac receptacle.

• Connect the other end of the power cord to an ac outlet.

• Push in the “1” side of the cabinet ac power switch.

• When the RESET LED on the HSG80 controller blinks at a rate of once per second the storage subsystem is ready to operate.

Turn on the Server
**Install the StorageWorks Software on the HP Host Machine**

### Install the StorageWorks Software

- Insert the storage subsystem CD-ROM in the CD-ROM drive.

- Mount the CD-ROM with the command
  ```bash
  mount /dev/dsk/c1t2d0 /directory
  ```

- Change to the directory
  ```bash
  cd /tmp
  ```

- Extract the file archive with the command
  ```bash
  tar xvf /directory/SWCC/AGENT/STM83_HP.TAR
  ```

- Execute the installation script
  ```bash
  ./install.sh
  ```

### NOTE

### NOTE
If you are using HP MC/ServiceGuard software and want to install it automatically into a MC/ServiceGuard package and configure the Command Console, refer to Section 2.5 of the *RA8000/ESA12000 HSG80 Solution Software V8.3 for HP–UX Installation Reference Manual*. 

- Choose option 2 in the Installation Script menu to install the StorageWorks software.

- Follow the text–based prompts and enter appropriate information.
Install and Launch the StorageWorks Command Console (SWCC) Client on the PC

Install the SWCC Client

- Insert the storage subsystem CD–ROM in the CD–ROM drive.
- Run File Manager or Windows Explorer.
- Navigate to the folder drive_letter:\SWCC\Client
- Choose Intel client; then double-click on Setup.
- When the setup wizard appears follow the instructions to complete the installation.

Launch the Client

- Click on the Windows taskbar Start button.
- Move the pointer to Programs –> Command Console –> HSG80 Storage Window; click on HSG80 Storage Window to display the Connection Selection dialog box.

- Enter the HP host IP name; then click Detect Subsystems. Client searches and finds the storage subsystems connected to your HP host and displays them in the Subsystem Name text box.
- Select a storage subsystem and click the Connect button; after two to three minutes the Storage Window is displayed.

- Click on the Network (TCP/IP) button and OK to display the Connect Network (TCP/IP) dialog box.
Verify Controller Properties

Display Devices in the Devices Windowpane

- Click on Storage in the Storage Window menu line. SWCC finds installed drives and displays them in a grid by CHANNEL and SCSI TARGET ID number.

Verify Properties

- Double-click on a controller icon in the Storage Window; the Controller Properties screen is displayed.

- Click on the tabs of the Controller Properties screen successively and confirm that the following values are set:
  
  **General tab**
  - Allocation class: 0
  - SCSI version: SCSI–2

  **Cache tab**
  - Cache flush time (seconds): 10
  - Respond to internal cache battery condition: selected

  **Communications LUN tab**
  - Confirm that the SWCC virtual LUN is enabled.
Configure a Storageset

- Click on Storage in the Storage Window menu selection line and select Add Virtual Disk to begin Step 1 of the Add Virtual Disk Wizard.

- Click the Striped parity device group (RAID 3/5) radio button; click Next> for Step 2.

- Select the devices you want to include in the virtual disk by clicking on the disks listed in the Available storage windowpane; as you select a disk it is added in the Selected devices windowpane.

- Click Next> for Step 3.
12 Quick Setup Guide

**Configure a Storageset (Cont’d)**

- Select the capacity for the virtual disk. You can select the maximum capacity or create partitions by selecting only a portion of the available maximum. If you create partitions, complete all steps for this partition; then access the Wizard again, make the same choices and create another partition.

- Click **Next >** for Step 4.

- Click on the box *Save controller configuration to virtual disk.*

- Click **Next >** for Step 5.
• Step 5 recaps your choices; if you are not satisfied, you can return to the applicable Wizard step using the Back button. When you are satisfied with your choices click *Finish*.

• When you return to the Storage Window you see the virtual disk you created illustrated in the *Virtual disks* windowpane. The hourglass on the disk icon indicates the Storageset is being initialized. The drives you used to create the RAIDset are highlighted in the *Devices* windowpane.
Congratulations!

You have now completed all the steps required to create an initial hardware configuration for your controller. For more information about using the SWCC software on the HP–UX host refer to RA8000/ESA12000 HSG80 Solution Software V8.3 for HP–UX Software Installation Guide. For more information about using the SWCC software on the Windows host refer to the Command Console User's Guide.

COMPAQ recommends that you verify and record your configuration for future reference.