Hitachi Protection Platform S-Series Software Installation Instructions

This guide provides instructions for the necessary steps to perform a fresh installation of the Hitachi Data Protection platform software on an S-Series system. This document is intended for Hitachi Vantara support personnel and others who assist in installing, maintaining, and managing the Protection Platform S-Series system in the backup and restore environment.

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Preface

These instructions provide the steps necessary to perform a fresh installation of the data protection software on an Hitachi Protection Platform S-Series system.

Intended audience

This document is intended for Hitachi Customer Service and Support personnel and others installing the Hitachi Protection Platform S-Series system in the backup and restore environment.

Release notes

Read the release notes before installing and using this product. They may contain requirements or restrictions that are not fully described in this document and updates or corrections to this document.

Document Conventions

This document uses the following symbols to draw attention to important safety and operational information.

Symbol	Meaning	Description
	Tip	Tips provide helpful information, guidelines, or suggestions for performing tasks more effectively.
	Note	Notes emphasize or supplement important points of the main text.
	Caution	Cautions indicate that failure to take a specified action could result in damage to the software or hardware.

The following typographic conventions are used in this document.

Convention	Description
Bold	Indicates text on a window, other than the window title, including menus, menu options, buttons, fields, and labels. Example: Click **OK**.
Italic	Indicates a variable, which is a placeholder for actual text provided by you or the system. Example: copy *source-file target-file* Angled brackets (< >) are also used to indicate variables.
screen/code	Indicates text that is displayed on screen or entered by you. Example: `# pairdisplay -g oradb`
< > angled brackets	Indicates a variable, which is a placeholder for actual text provided by you or the system. Example: `# pairdisplay -g <group>` Italic font is also used to indicate variables.
[ ] square brackets	Indicates optional values. Example: [a | b] indicates that you can choose a, b, or nothing.
{ } braces	Indicates required or expected values. Example: { a | b } indicates that you must choose either a or b.
| vertical bar	Indicates that you have a choice between two or more options or arguments. Examples: [a | b] indicates that you can choose a, b, or nothing. { a | b } indicates that you must choose either a or b.
underline	Indicates the default value. Example: [<u>a</u> | b]

Help and Related Documents

The Console Manager online help provides some additional information about using your S-Series system.

You can access the S-Series end user documentation by clicking the Help tab then clicking Product Documentation. Search for Hitachi Protection Platform or HPP.

Help Screen

If you are having problems not addressed by the help online, click the Customer Support link for assistance.

Comments

Please send us your comments on this document: doc.comments@HitachiVantara.com. Include the document title, number, and revision, and refer to specific sections and paragraphs whenever possible.

Thank you! (All comments become the property of Hitachi Vantara.)

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Installing S-Series Software

All HPP software must be installed by a Hitachi Vantara Customer Support Engineer. Please engage Hitachi Vantara Global Support by opening a new Service Request within Support Connect at https://support.HitachiVantara.com.

These instructions provide the steps necessary to perform a fresh installation of the data protection software on a Hitachi Protection Platform S-Series system. This procedure requires the applicable data protection software via the network or on a USB flash drive or DVD, a Data Protection license, a monitor and a keyboard with the appropriate cables, or a Windows-based laptop to communicate with the S-Series system.

Product Description

Hardware Requirements

An Hitachi Protection Platform S-Series system consisting of:

- An S-Series D51B-2U, HP ProLiant Gen8p or Gen7, or a CR220S processor node
- Hitachi Virtual Storage Platform (VSP) G200/G400/G600/G800 disk storage arrays, Hitachi Unified Storage (HUS) arrays, or Adaptable Modular Storage (AMS) arrays
- Ethernet or Fibre Channel switches

Software Requirements

- Latest Hitachi Protection Platform S-Series Version 8.*x*

Key Features

The Hitachi Protection Platform S-Series provides enterprise-class backup, restore, and deduplication for efficient storage of backups. The system emulates Fibre Channel tape drives and simultaneously supports disk-to-disk backups using Veritas OpenStorage (OST) protocol over TCP/IP and Fibre Channel. Data may be replicated over IP networks to disaster recovery centers to eliminate the transport of data via tape. Storage capacity and processing power can be expanded modularly. The key features include:

- Virtual Tape Library
- Delta Differencing Deduplication Technology
- Tape Image Replication
- Veritas NetBackup™ OpenStorage Technology
- Compression
- Data Erasure
- Support Portal

Before You Begin

Hitachi Protection Platform S-Series systems are factory-configured for your environment based on the configuration worksheet created at the time of your order.

You must connect a laptop or a monitor and keyboard to communicate with the S-Series system.

Follow these steps to connect a laptop or a monitor and keyboard with your S-Series system to respond to the installation program prompts.

In a multinode environment, you must follow this procedure for each S-Series system.

To connect a monitor and a keyboard

1. Connect a monitor using the VGA monitor cable to the video port on the node.
2. Connect a keyboard to a USB port on the node.

To connect a laptop

1. Use a serial port adapter to connect to the serial management port (far left) on the node to the serial port on your laptop.

⚠	Note	You can use PuTTy to communicate with the node to provide installation inputs.

2. Start a new serial communication session with the node using the terminal emulation application on your laptop (Start > All Programs: PyTTy) for Windows 7 or (Start > Programs > Accessories > Communications > HyperTerminal) for other Windows applications.
3. The *Connect To* screen is displayed. Select **COM1** in the "Connect using" drop down menu and click **OK**.
4. Enter the name of the connection on the *Connection Description* screen and click **OK**.
5. Configure the settings on the *COM1 Properties* screen as follows and click **OK** (see Figure 1):

   Speed (Baud rate): **115200**
   Bits: **8**
   Parity: **NONE**
   STOP: **1**
   FLOW: **X-ON/X-OFF**

   You may need to reconfigure these settings each time you connect a laptop to the node you are configuring if you are unable to save the session.

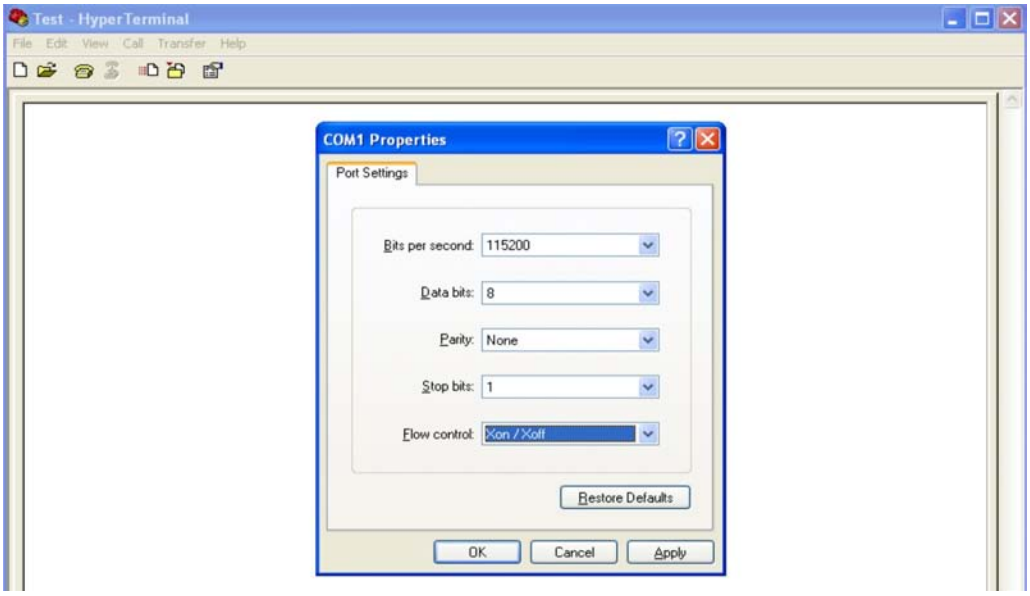

Figure 1: COM1 Properties Screen

Data Protection Platform Software Installation

The installation from the USB/DVD takes approximately 40 minutes but varies depending on the environment and number of nodes in the cluster.

1. Insert the installation USB flash drive into one of node0's USB ports or the installation DVD into the DVD drive, and power on or reboot the node by pressing the power button.

   The node boots from the USB/DVD and the console displays the data protection platform installation screen.

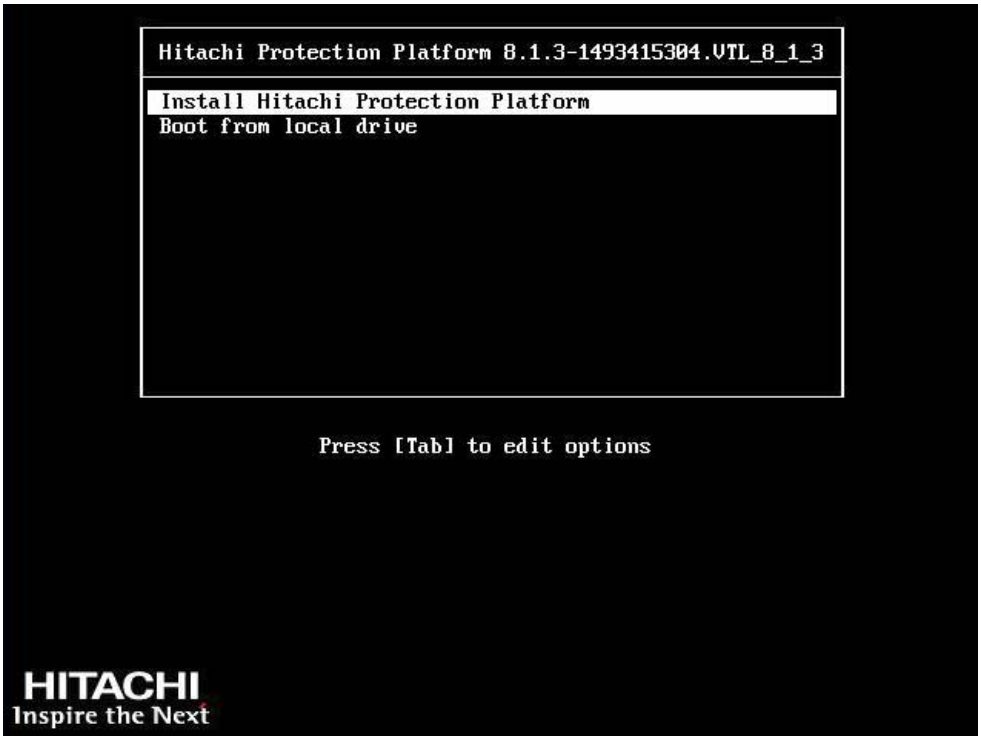

Figure 2: Sample Boot Screen

2. Press Enter to start the installation. The system copies the data off of the USB drive or DVD. When the software installation is complete, remove the USB flash drive. A DVD self-ejects. The system reboots.

   The installation starts and a sample screen indicates progress, as follows:

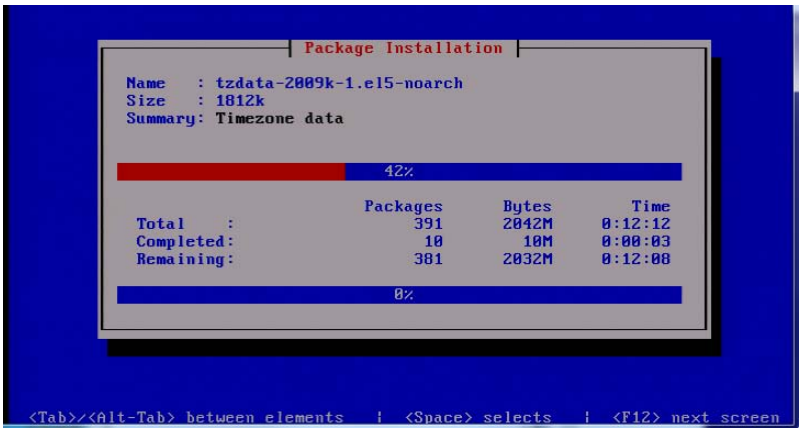

Figure 3: Sample S-Series Installation Screen

Upon completion of the software install, the system reboots.

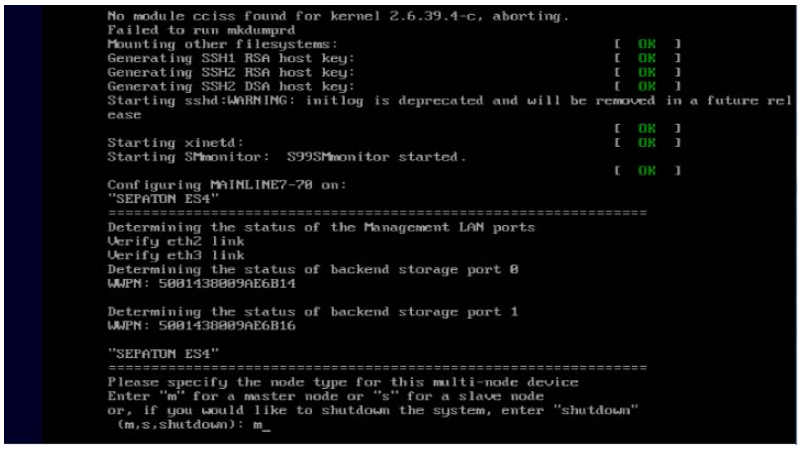

Figure 4: Enter M for Node0

3. You are prompted to enter **M** to configure the node as the master node (node0), or to enter S to configure the node as a slave node (node1 to *n)*.
4. The configuration program prompts you for network settings information.

   Table 1 lists the configuration program prompts and provides sample entries. Replace any values cited below with your site-specific values. The values shown are sample values only.

Table 1: Node0 Network Configuration Information

Prompt		Sample Entry
a.	Public network Host Name:	myhost **Note**: The terms “Node0” or “BostonNode0” are invalid host names. Do not use underscores in data protection host names; for example, myhost is a valid host name, but my_host is an invalid host name.
b.	Public network Domain Name:	mycompany.com
c.	IP address type (dhcp | static [default]):	static
d.	Public network IP address:	192.168.100.100
e.	Public network mask:	255.255.255.0
f.	Public network Gateway address:	192.168.100.1
g.	IP address of DNS server 0:	192.168.1.2
h.	IP address of DNS server 1:	192.168.1.3

5. The parameters you entered in the previous steps are displayed and you are asked to confirm them (y|n).
   a. Enter **y** (yes) if the parameters are correct.
   b. Enter **n** (no) if you need to change parameters. The configuration program restarts from Step 4 above. All previous answers are cleared.

   ```
   Host Name=myhost
   Domain Name=Hitachi.com
   Boot Protocol=static
   IP Address=192.168.100.100
   Network Mask=255.255.255.0
   Gateway Address=192.168.100.1
   DNS_Server0=192.168.1.2
   DNS_Server1=192.168.1.3

   Are these parameters correct? (y|n)
   ```

   After you confirm that your parameters are correct, the data protection software installs on the node's local hard drives.

   When the installation is complete, the following message is displayed:

   ```
   vtl start (master node): SUCCESS
   ```

   The installation activity is logged to:

   ```
   /var/log/vtl_init.log
   ```

6. You can now disconnect the laptop or the monitor and keyboard from the S-Series system.

   After the system becomes available, a single-node S-Series is ready to be configured through the data protection platform's user interface. Proceed to "Logging into the Console Manager".

   In a multinode configuration, continue configuring the remaining nodes as described in Step 1 of this section. Upon completion, proceed to "Logging into the Console Manager".

Logging into the Console Manager

Follow these steps to log into the Console Manager:

1. Launch a new Web browser window using your public network. The Console Manager supports the following browser versions and later releases:
   - Internet Explorer 11
   - Firefox 3.6
2. Access the Console Manager by entering the following for the URL:

   https://<S-Series ip_address>

⚠	Note	This is a secure connection. Be sure to use “https://”.

The Console Manager *Login* screen is displayed (Figure 5).

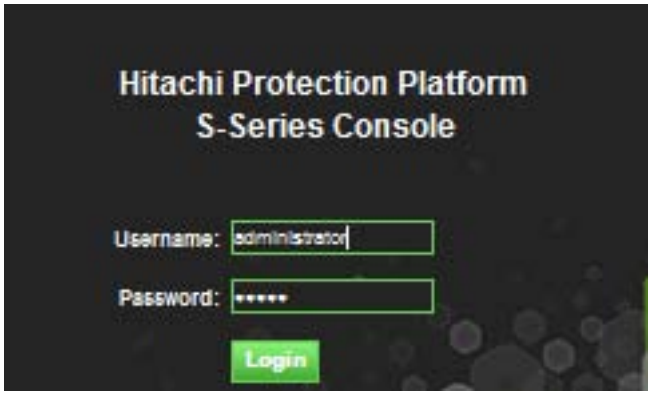

Figure 5: Console Manager Login Screen

3. Enter the login information.

   User name: **administrator**
   Password: **admin**

   The End User License Agreement (EULA) screen is displayed when you log in to the Console Manager for the first time.

4. Read the EULA and click the button to **Accept** the license agreement; the *Dashboard* screen is displayed. The license agreement is also published as an appendix in the S-Series User Manual.

   You must now install a license as described in the following section.

Installing a License

⚠	Note	If you need to add additional features, contact Customer support for a new license and simply install it over the existing one.

To enable S-Series features you must install the Hitachi-provided license file. This file must be accessible via your network for this installation process.

Follow these steps to install or update your system license:

1. Log into the Console Manager as administrator and navigate to the *Chassis Status* screen (**System > Chassis: MAINTENANCE TASKS: Install License**) as shown in Figure 6.

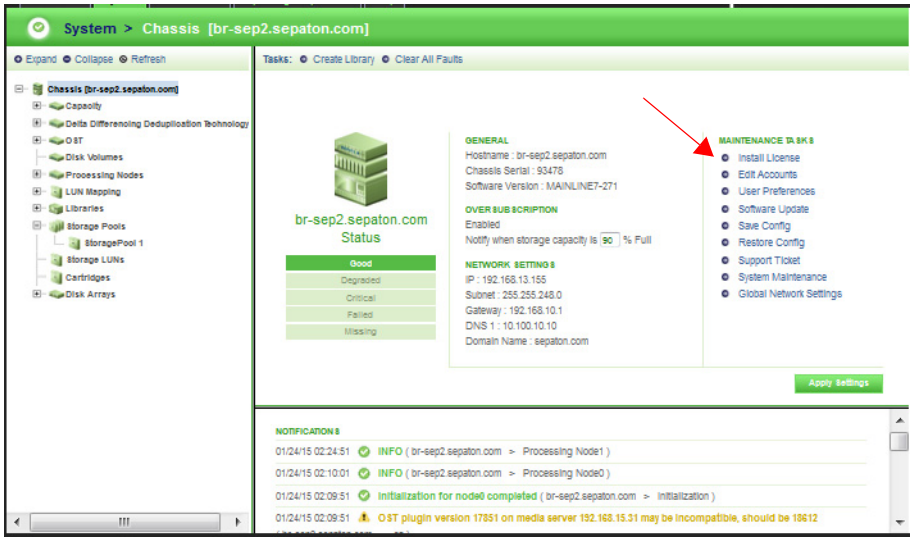

Figure 6: Install License

2. Click **Install License**. The *Install License* wizard is displayed (Figure 7).

Figure 7: Install License - Step 1

3. Click **Browse** and locate the license file in your network.
4. Click **Next Step** to complete the installation process. The system automatically reboots.

The Console Manager validates the license file contents prior to its installation. If you did not select a valid Hitachi license file, the Console Manager warns you of this condition and allows you to retry.

The system takes a couple of minutes to upload the license file and appears inactive at this time. *Do not interrupt this process.*

A series of alert notifications report when the database initialization has completed as well as when initialization has completed for all nodes in the system (Figure 8).

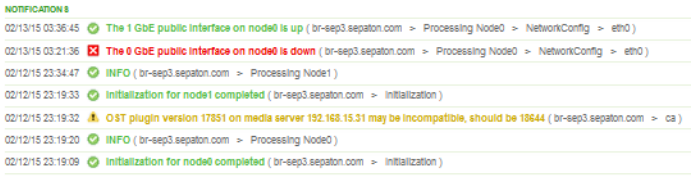

Figure 8: Sample Notifications

If the system has not completed the restart process before you attempt activity in the browser, a “Failed to connect” or “Cannot communicate with chassis” message appears on the screen. Wait a few more minutes and try to connect again.

Mounting Backend Storage

Before you can begin using your S-Series for backups, restores, and replication, you must first add backend storage. Complete details are in the section Confirm Storage LUNs in the *Hitachi Protection Platform S-Series User Manual*.

1. A warning message serves as a reminder that you need to configure storage:

Backend storage devices need to be configured - Node 0 entering maintenance mode (vulture.sangate.com > Initialization)

Backend storage devices need to be configured - Node 1 entering maintenance mode (vulture.sangate.com > Initialization)

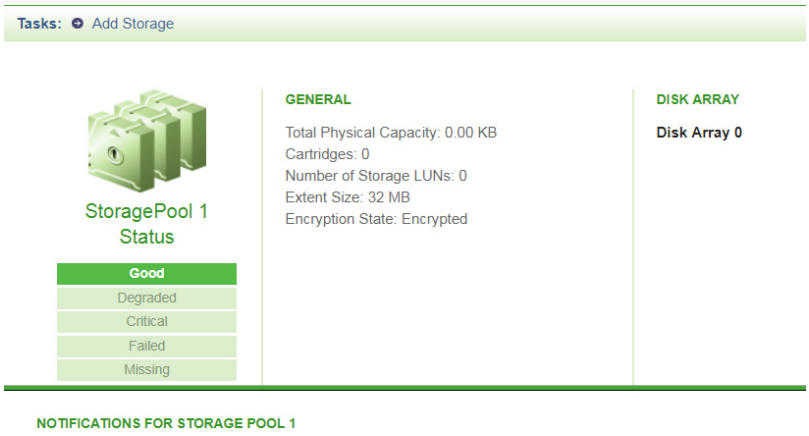

Figure 9: Add Storage Task Screen

2. To mount the backend storage, you must **Add Storage** (System > Chassis > Storage Pools > Storage Pool 1: Add Storage).

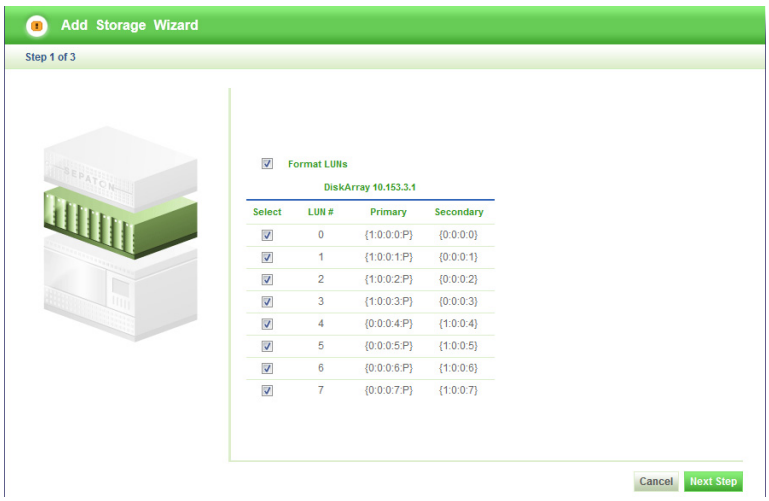

Figure 10: Format LUNs Screen

3. Click **Format LUNs**.

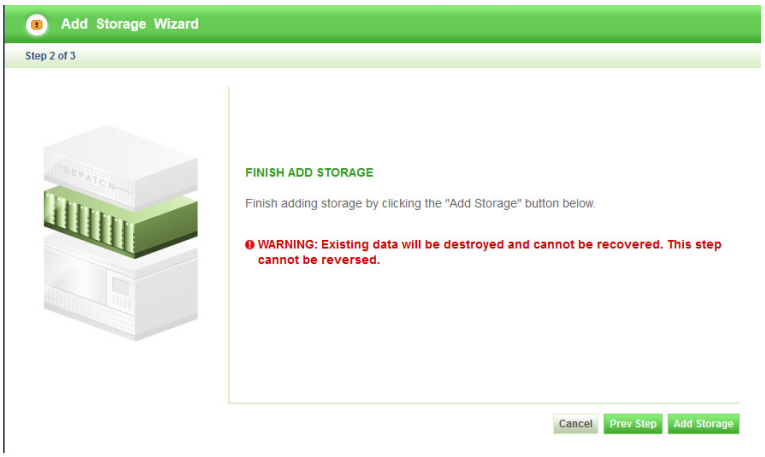

Figure 11: Add Storage Warning Screen

4. Reboot the data protection platform manually (**System > Chassis: MAINTENANCE TASKS: System Maintenance: Restart VTL**).

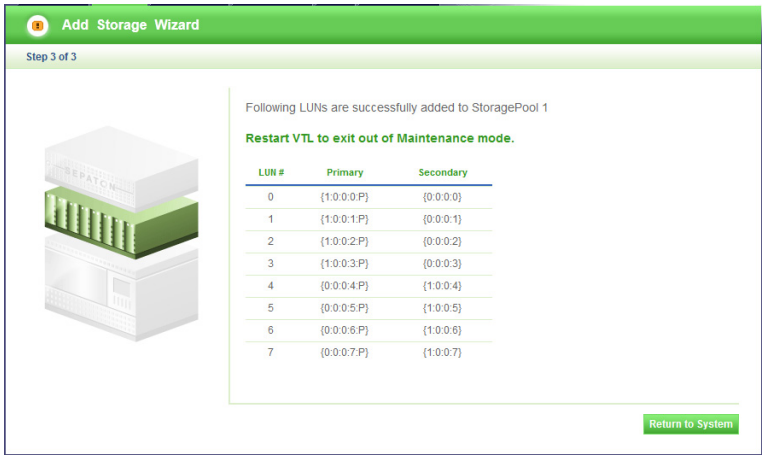

Figure 12: LUNs Successfully Added to Storage Pool 1 Screen

Next Step

After installing your S-Series software, when the system is completely available, you are ready to begin configuring your system. Refer to the *Hitachi Protection Platform S-Series User Manual* for detailed operating instructions.

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