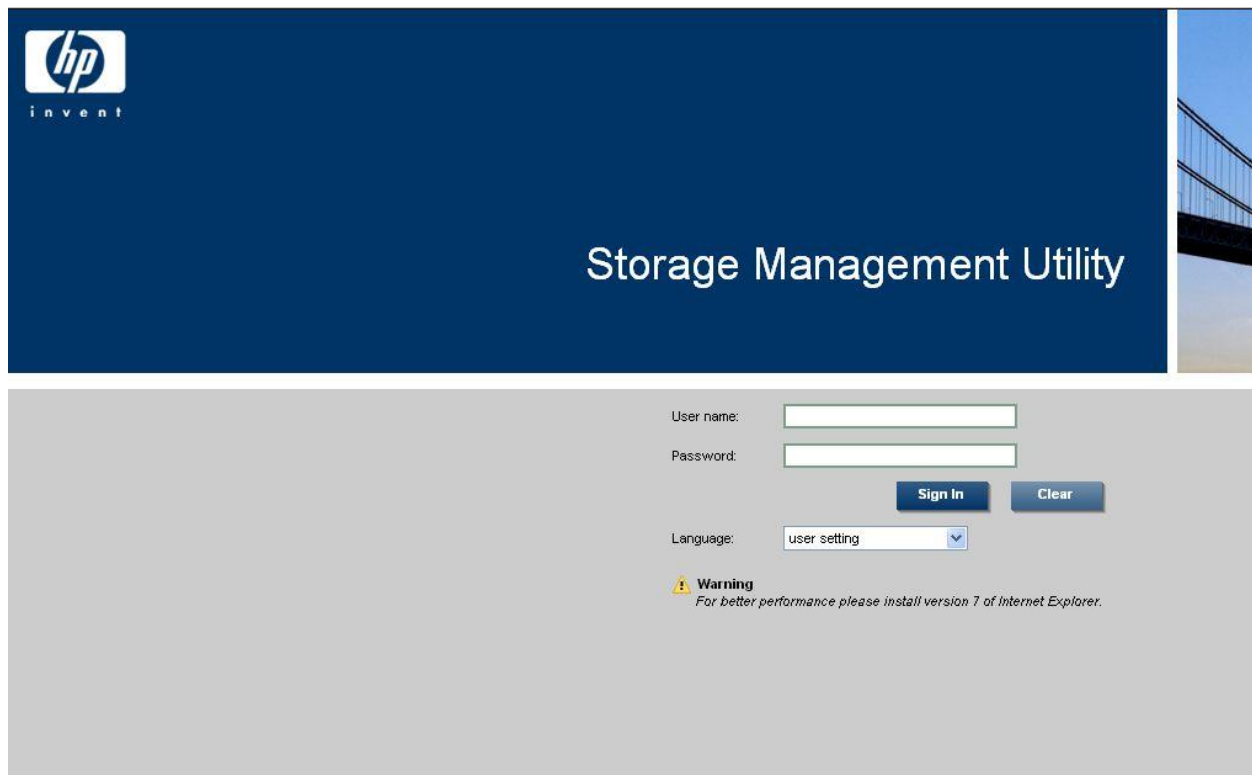# HP MSA 2300 Series Configuration Guide

1. Logon to console
2. Configure system settings
3. Create Vdisks
4. Create Volumes
5. Assign volumes to Hosts
6. Create Global Spares
7. Rename Host

Login to console:

The MSA series will have 1 or 2 console ports. The ports will come with default IP address of 10.0.0.2 and 10.0.0.3. Once you enter in the IP address to your web browser you will see the screen below.
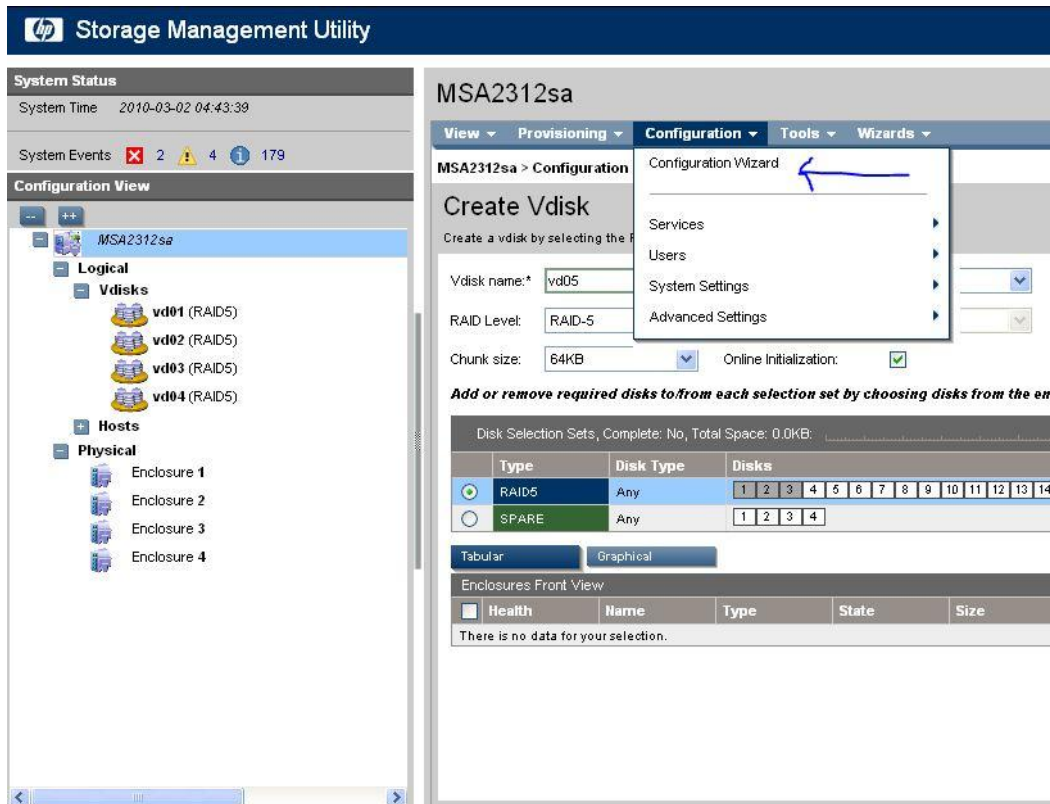

Once at the logon screen you can login using the default factory credentials below.
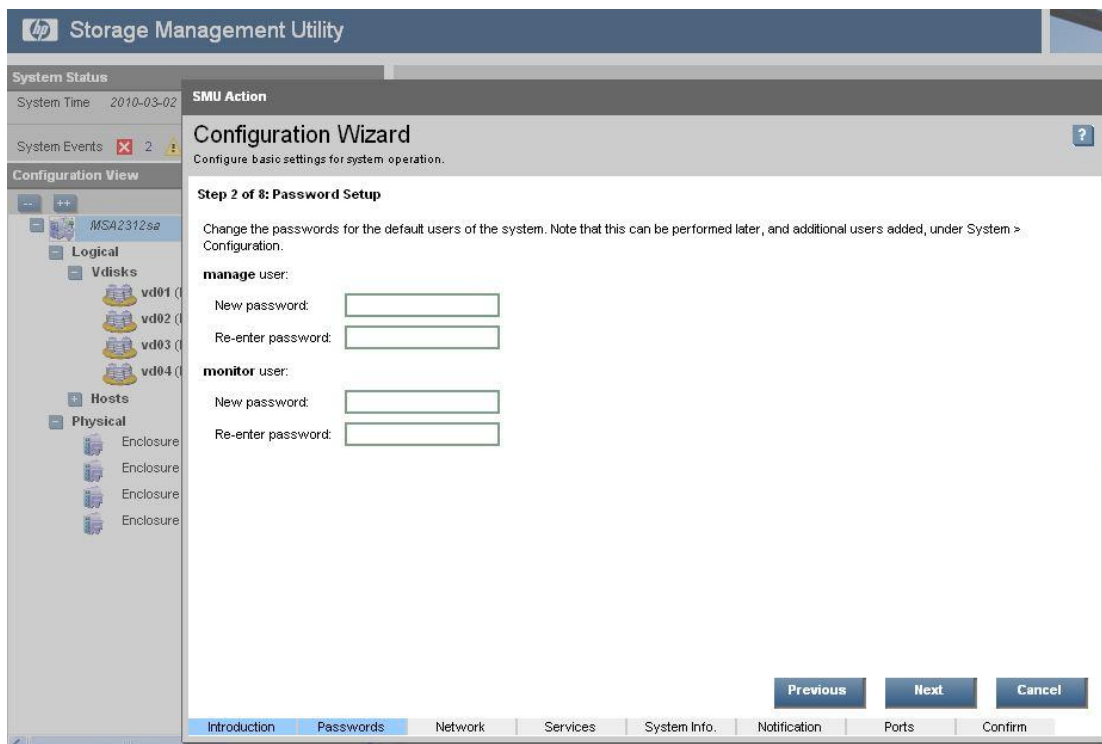
User – manage

Password - !manage
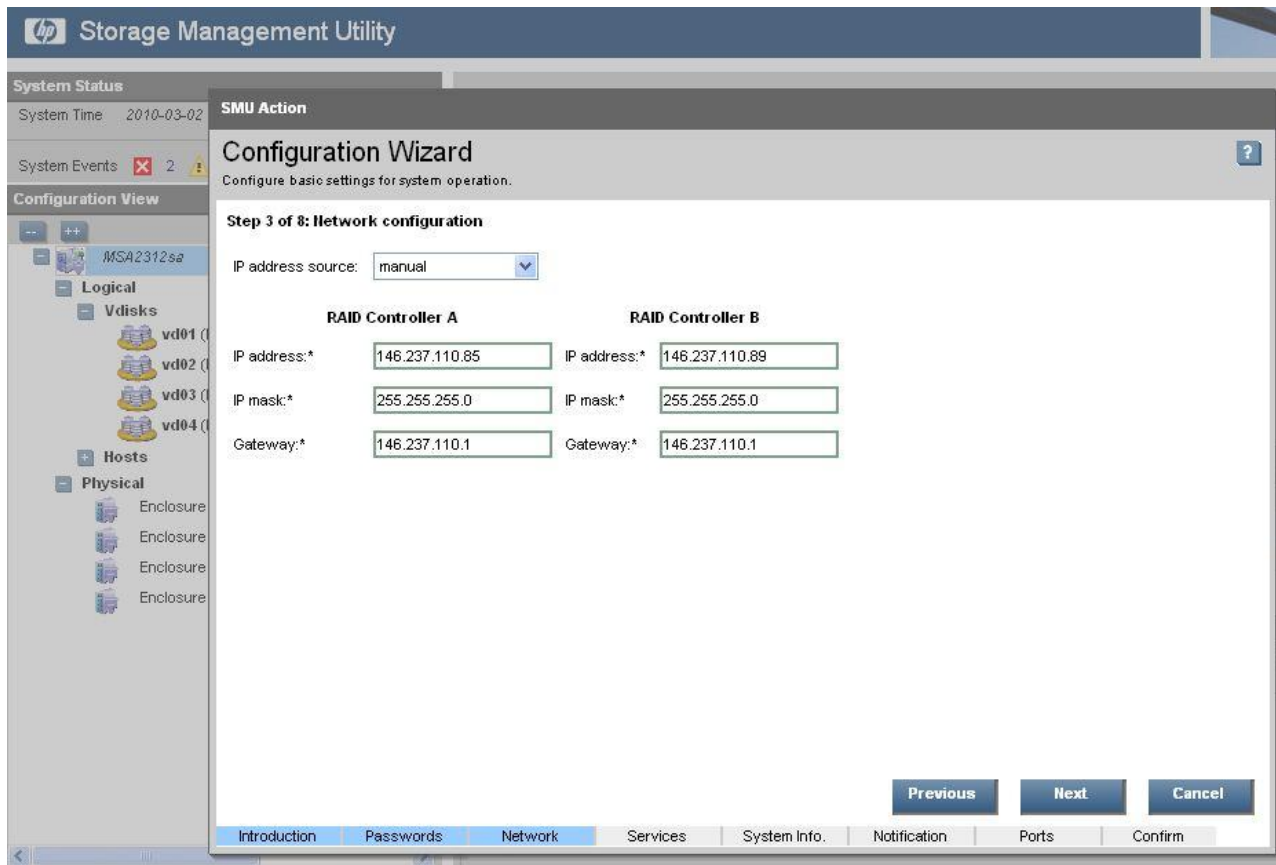
Configure system settings

You will need to configure system settings to set the IP address of the console ports, change passwords, setup error reporting and services running on the array.
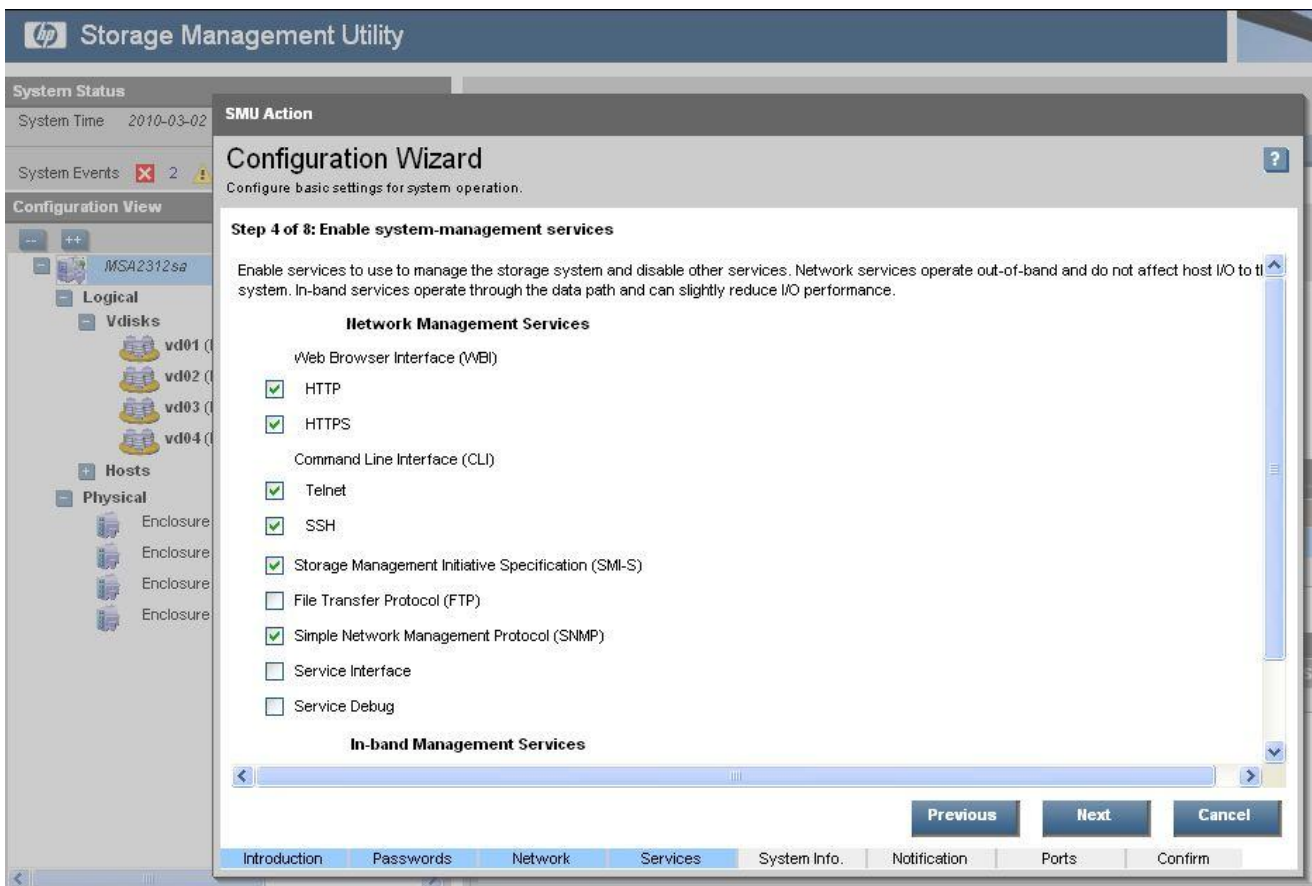

From the screen above select the Configuration Wizard from "Configuration" menu at the top of screen.

The screen above will allow you to change the passwords for the account you are logged in with.

The 3rd screen on the configuration wizard allows you to set the IP address for the controllers available in the device.
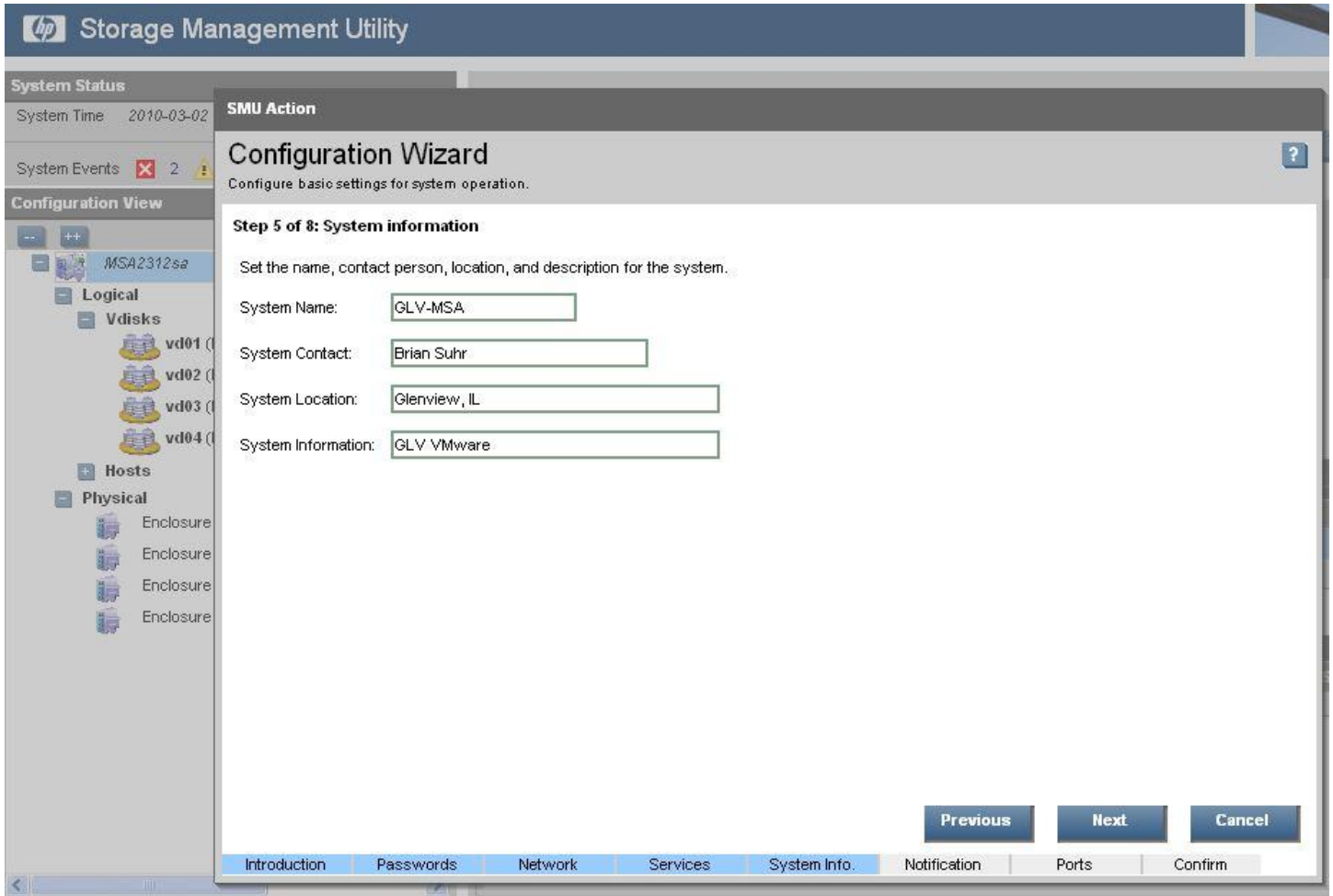

The screen above screen will allow you to enable/disable system services.

Web browser settings allow you to select how secure you want the connection to be.

CLI – gives you the option to allow Telnet & SSH connections for command line configurations.

The remaining options are std. support protocols.

Step 5 allows you to specify system name, contact and location of the Storage Device.
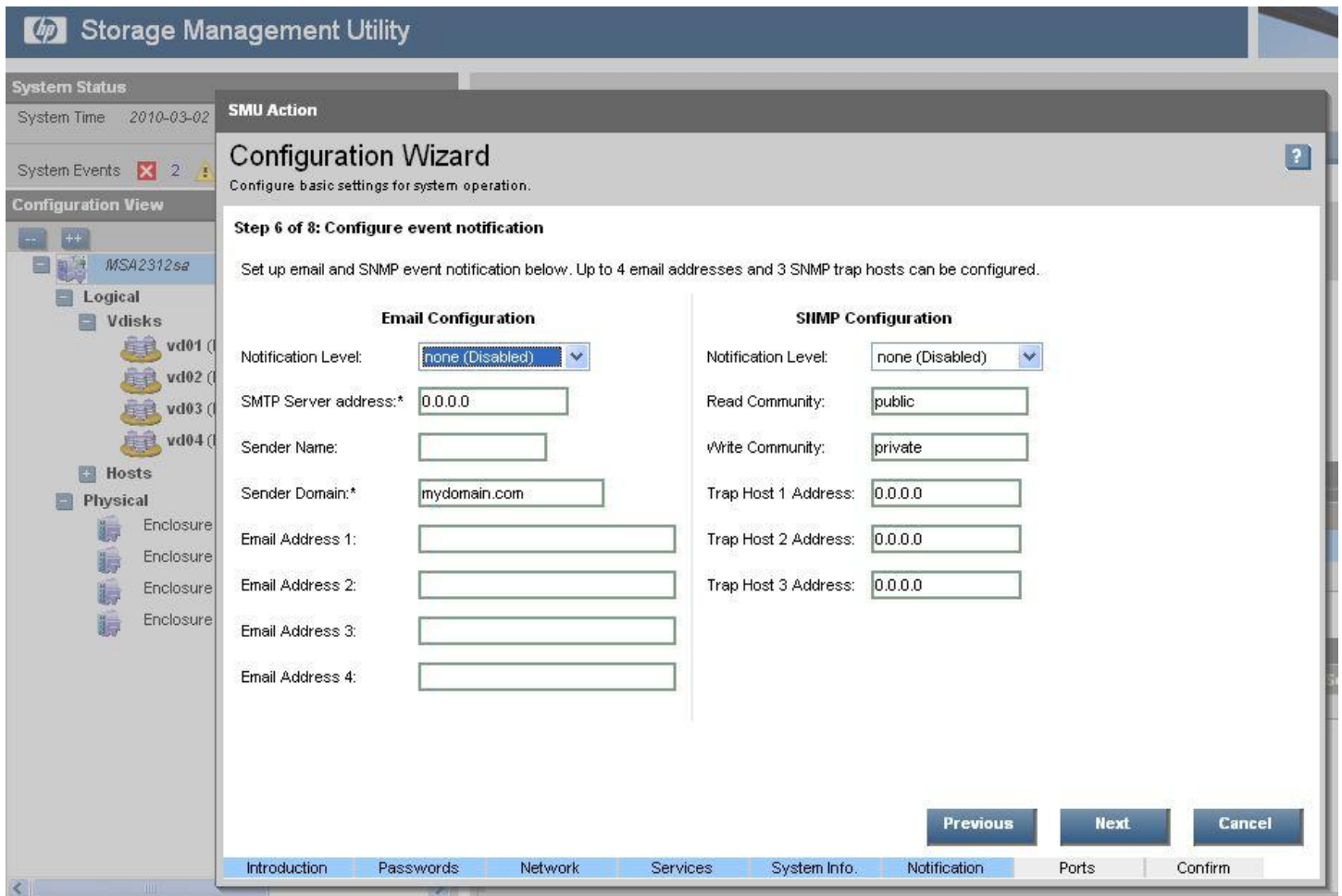
Step 6 allows you to enable Email alerting and SNMP configuration. These will allow the device to send out notifications.

SMTP server – This is the mail server that will relay the messages.

Email Address 1-4 fields are used for address that you want the notifications sent out to. If you need more than 4 you should create and use a Distribution list.
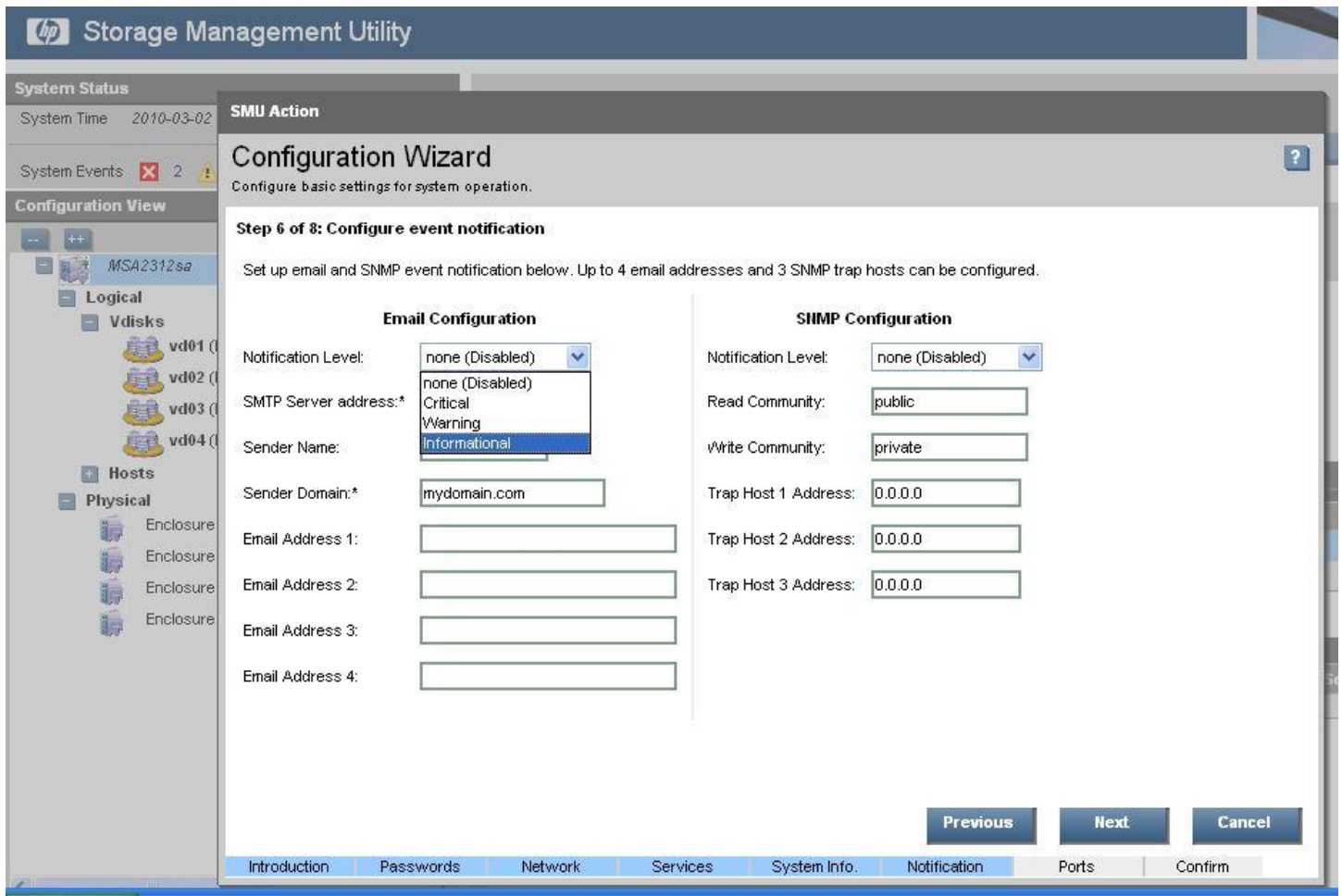
You have several levels of Notification settings that are available.

Critical – This will only send out notifications on critical warnings.

Warning – This level will send out notices on both Critical and Warning level errors.

Informational – This selection will send out notices for all events on the system.

To turn off notification you will want to select "none (Disabled)" and no events will be sent.
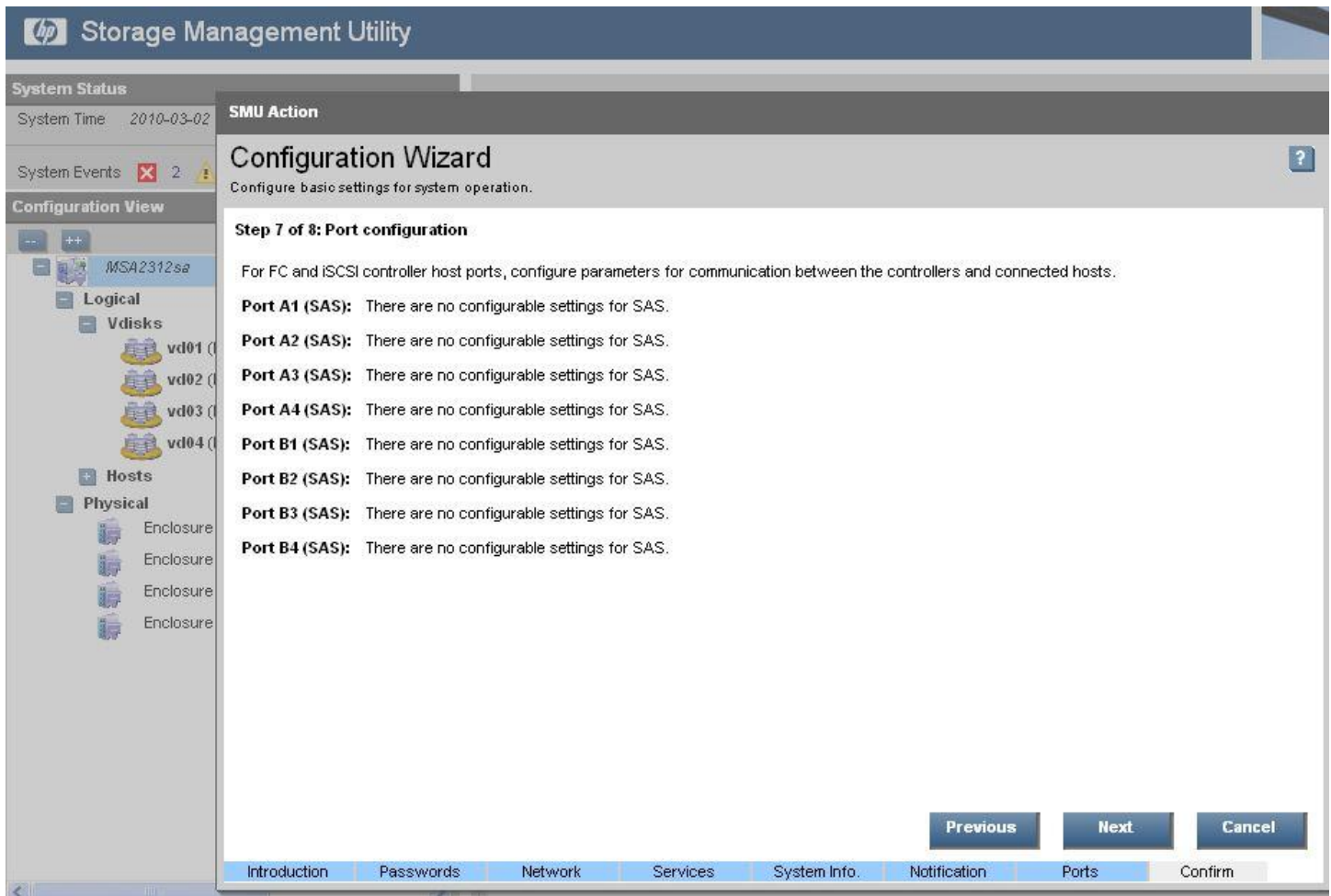
Step 7 is for configuring parameters of Fiber Channel and iSCSI ports. Since the device used for this document creating used SAS disks there was nothing to configure on this stage.

Creating Vdisks:

To create new Vdisks refer to the screen above and the directions below.

1. Click on Vdisks from the Tree view on the left side.
2. On left side of screen click on Provisioning from top menu and select "Create Vdisk".
3. Refer to image below for remaining steps.

You will now be presented with a screen similar to the one above. In the lower part you will be present with all disks that are unassigned.

1. Enter in your Vdisk name
2. Select your RAID level. (This will be based on your intended use.)
3. You can also select Chunk size.
4. The assign to section will Auto assign to a controller or you can specify A or B controllers directly.
5. Online initialization will you to begin working with the disk upon creation. If unchecked you must wait until it completes before starting to use.
6. Next you will need to select which disks will be part of your Vdisk from the lower section. Note the Name section shows you what Chassis and Disk number you are selecting. (Example: Disk-2.5 is the 5th disk in chassis 2)
7. When selecting the disks you will want to try and spread the disks out across multiple chassis's if you have more than one chassis. This will allow you more stability in the event that there s a chassis failure.
8. Spare selection: If you specify a spare disk from this screen it will be tied to only this Vdisk. Later in this document you will be able to configure a Global Spare. Global spares will provide protection to all Vdisks in the storage configuration.
9. Once you apply the settings your Vdisk will be created and will start the initialization. This process takes about 16 hours with 450 GB disks. Larger sized disks will take longer.
10. You are best to create all your Vdisks at once and let them initialize as it will only be 16 hours. If you do them and then wait it will take 16 hours each time.

HP Storage Management Utility

System Status
System Time   2010-03-02 04:37:41

System Events   ❌ 2   ⚠ 4   ℹ 179

Configuration View

- MSA2312sa
  - Logical
    - Vdisks
      - **vd01** *(RAID5)*
      - **vd02** (RAID5)
      - **vd03** (RAID5)
      - **vd04** (RAID5)
    - Hosts
  - Physical
    - Enclosure 1
    - Enclosure 2
    - Enclosure 3
    - Enclosure 4

vd01 (RAID5)

View ▾   Provisioning ▾   Configuration ▾   Tools ▾   ● Rectangle

vd01 (RAID5) > View > Overview

Vdisk Overview

Details about a specific vdisk
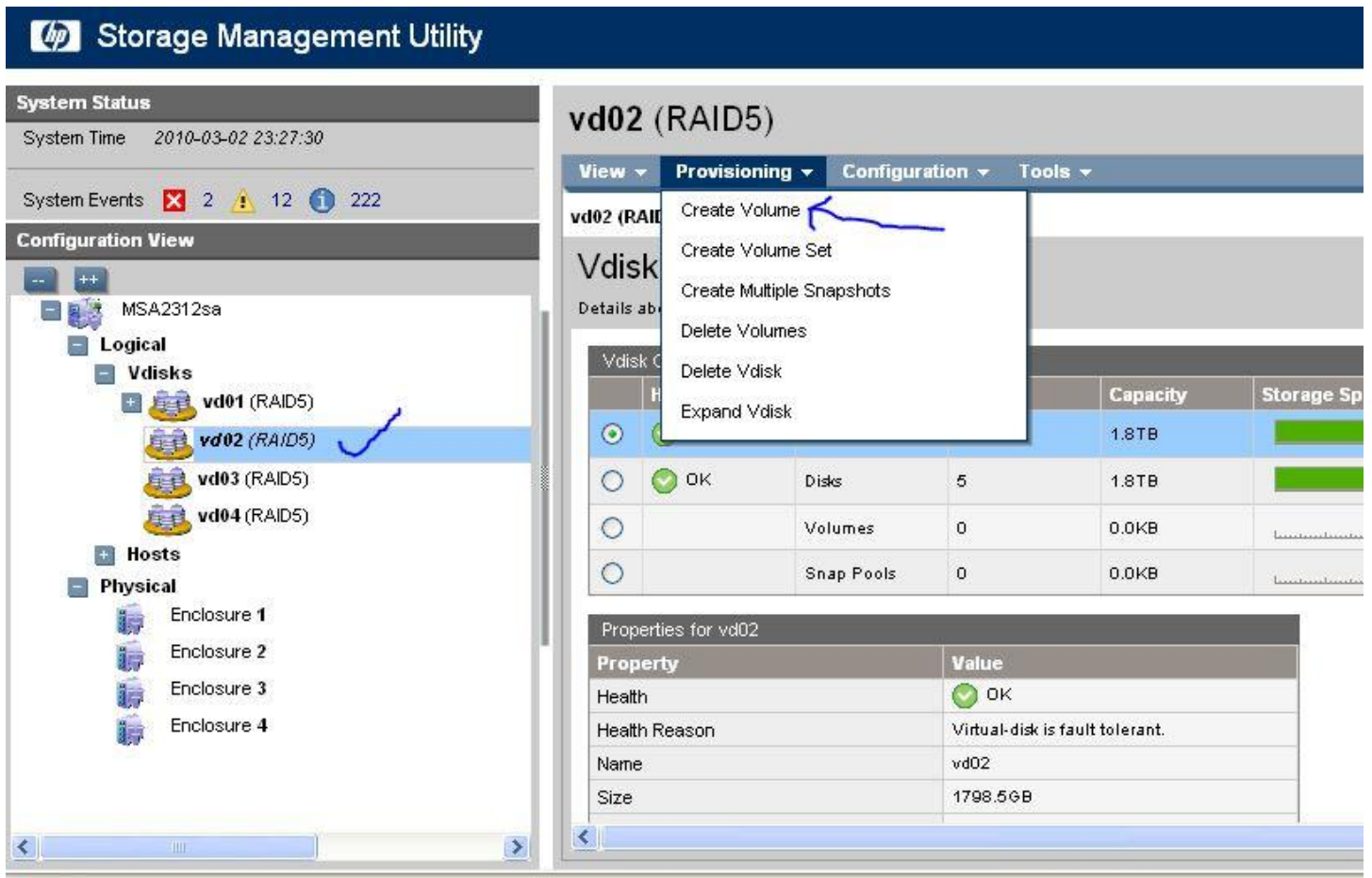
| | | Snap Pools | 0 | 0.0KB | |

Properties for vd01

Property	Value
Health	✓ OK
Health Reason	Virtual-disk is fault tolerant.
Name	vd01
Size	1798.5GB
Free	1798.5GB
Current Owner	A
Preferred Owner	A
Serial Number	00c0ffda174f00001f1f8c4b00000000
RAID	RAID5
Disks	5
Spares	0
Chunk Size	64k
Created	2010-03-01 20:10:07
Minimum Disk Size	449.6GB
Status	FTOL
Current Job	Initialize (72%) ▬▬▬▬▬

To find out the progress on the disk initialization process, refer to the screen above and you are able to view the "Current Job" status.
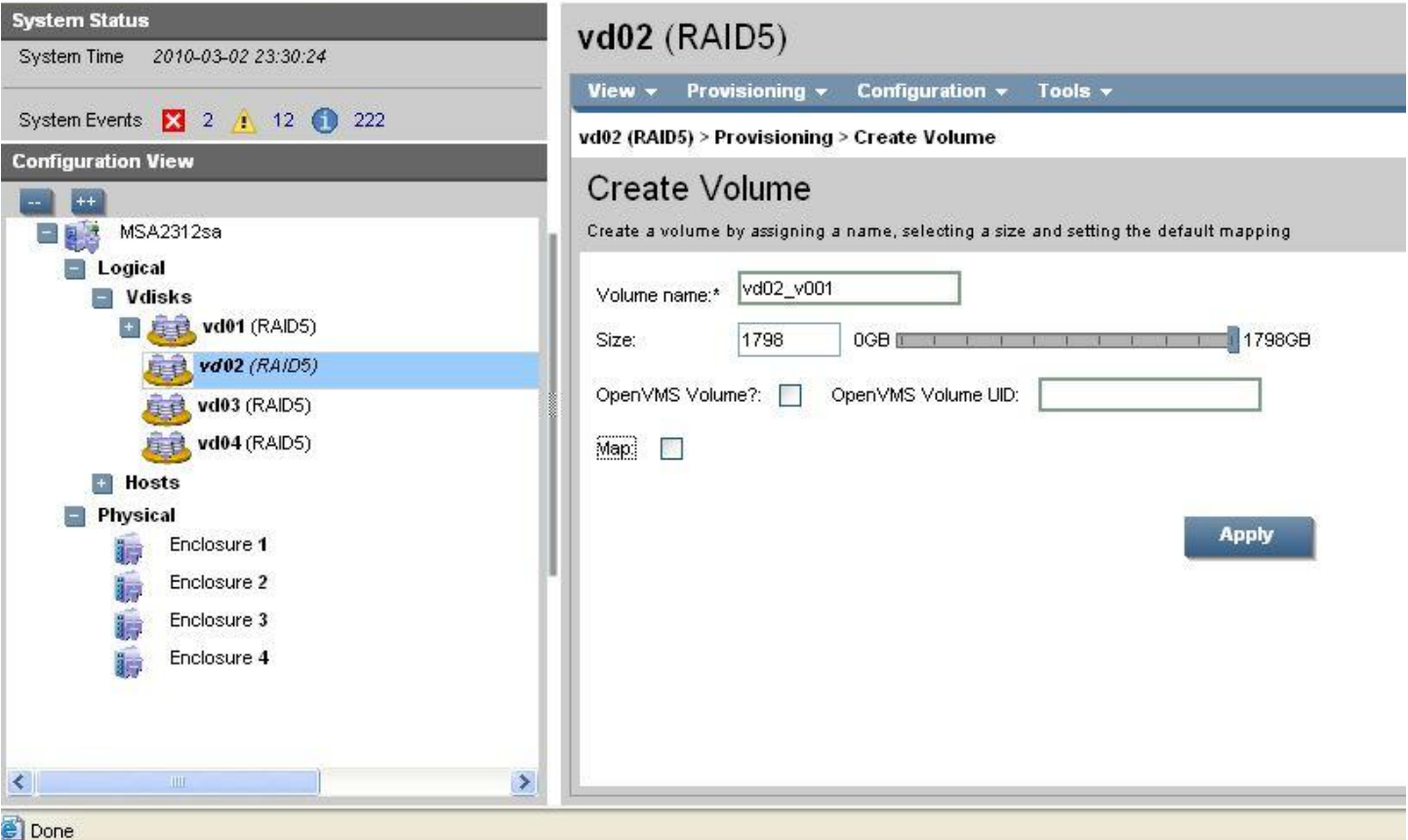
Create Volumes:

Next step is to create volumes on the Vdisks that you already created. Think of a Volume is similar to a LUN/Partition on the disk. So you could create a large volume and then slice it up into several smaller volumes.

1. Click on the Vdisk you wish to create the volume on from the Tree in the left volume.
2. From the Provisioning menu at the top of the left screen choose "Create Volume"
3. You will then be presented with a screen similar to the next image below.

Once you clicked on "Create Volume" you are presented with the options listed above.

1. Enter in your Volume name.
2. Adjust the size that you want for this volume. It will default to the max available space on the Vdisk.
3. The OpenVMS options would only be used if you are connecting the storage to a VMS computer.
4. Do not check the "Map" option for now. In the next section you will learn how to map to hosts.
5. Click the "Apply" button to create the volume.

Host Mapping: (Assigning Volumes)

Now that you have created Vdisks and Volumes on the disks you will now need to assign the Volumes to your hosts. You are able to manually add Hosts to the console. The system is very good at auto finding new hosts.

1. You will want to select the Volume from the tree that you wish to assign Hosts to.
2. Then select "Explicit Mappings" from the "Provisioning" menu on the left side menu.
3.

Volume **vd02_v001** (1798.5GB)

View ▾   Provisioning ▾   Configuration ▾   Tools ▾

Volume vd02_v001 (1798.5GB) > Provisioning > Explicit Mappings

Explicit Volume Mappings

Modify the volume mappings to specific hosts by using the default map or explicit map settings

	Type	Host ID	Name	Ports	LUN	Access
○	Default	500605B0019C88F0				not-mapped
○	Explicit	500605B0019CE3D0	GLVVM001a	A1,A2,A3,A4,B1,B2,B3,B4	2	read-write
○	Default	500605B0019C88F4				not-mapped
⊙	Explicit	500605B0019CE3D4	GLVVM001b	A1,A2,A3,A4,B1,B2,B3,B4	2	read-write

Map: ☑   (Clear to remove existing mapping)

LUN:* 2   Access: read-write ▾

Select ports from the view or list below:

Graphical   Tabular

Apply

You will now be presented with the Explicit Volume Mappings screen.

1. From the top table you will need to select the Host that you wish to map to the Volume.
2. You will need to check the Map box.
3. In the LUN field enter the name that you wish to use
4. Choose the Access level. Default is read-write
5. Then select which ports on each Storage Processor you wish to map to. Default is all ports on all processors.

Creating Global Spares:

Global spares are extra disks that can be used as spares for failed drives for any Vdisk in any enclosure. The other way to handle spares would be to specify a Spare that is dedicated to a specific Vdisk.

To start click on the storage enclosure at the top of the Tree View on the left. Refer to picture above and then select Manage Global Spares from the Provisioning menu.

MSA2312sa

View ▾   Provisioning ▾   Configuration ▾   Tools ▾   Wizards ▾

MSA2312sa > Provisioning > Manage Global Spares

Manage Global Spares

Add or remove disks from the selection set to define the global spares

Disk Sets, Total Space: 900.2GB: 900.2GB

	Type	Disk Type	Disks	Size	Complete
⊙	GLOBAL SP	All	1 2 3 4 5 6 7 8	900.00GB	☑

Tabular   Graphical

Enclosures Front View

	Health	Name	Type	State	Size	Enclosure	Serial Number	Status
☑	✔ OK	Disk-1.1	SAS	GLOBAL SP	450.0GB	Enclosure-1	JMX33G8C	OK
☑	✔ OK	Disk-2.1	SAS	GLOBAL SP	450.0GB	Enclosure-2	3QQ293HE00009013SLKZ	OK

Modify Spares

You will now see the Manage Global Spares page.

You will now be presented with any unassigned disks. To enable them as Global Spares all you need to do is select them and choose Modify Spares.

Rename Host:

To make it easier to identify your hosts you can give them custom names.

To do this you will select the host connection that you wish to change from the left column.

Then from the provisioning menu choose Rename Host

You are now able to type in a more suitable name to help with identifying which host you are working with.

Profile option is how you choose between Standard, HP-UX and Open VMS options.

After renaming the host interface you can see from the summary that you now have a friendly name and the host can still be referenced by the Host ID.