

# Application Note

November 2013

## Installing and Configuring SnapSAN vCenter Plug-in Application



### Summary

This Application Note describes how to install and configure the SnapSAN vCenter Plug-in with a fibre or iSCSI attached SAN Array. This document makes use of the VMware vSphere Client in an ESXi 5.1 environment.

## Required Information, Tools, and Files

Before you begin these procedures, the following information, tools, and files are required.

### Prerequisites

Prior to performing these procedures, ensure that you have the following:

- Overland Storage SnapSAN S3000/S5000 Disk Array must be installed and configured. You can get additional technical support from our website at <http://support.overlandstorage.com>, or by contacting Overland Storage using the information found on the [Contact Us](#) page on our web site.
- This document assumes that the storage pool has already been created. Additional information on binding a pool can be found in the *SnapSAN S3000/S5000 Disk Array User Guide* available at <http://docs.overlandstorage.com/snapsan>.
- The information in this Application Note covers installing and configuring the VMware vCenter Plug-in. For additional details about the SnapSAN vCenter Plug-in, refer to the following *SnapSAN S3000/S5000 VMware vCenter Plug-in User Guide* also available at <http://docs.overlandstorage.com/snapsan>.
- This document assumes that vCenter Server is already installed and running, and that the reader has a general understanding and familiarity with the VMware ESXi environment. Any and all additional information can be attained through the VMware Knowledge Center.
- Your vCenter Server credentials are also part of this requirement and will be used during the installation and configuration of the SnapSAN vCenter Plug-in.

### Versions

The test environment used for illustration in this document uses the following versions:

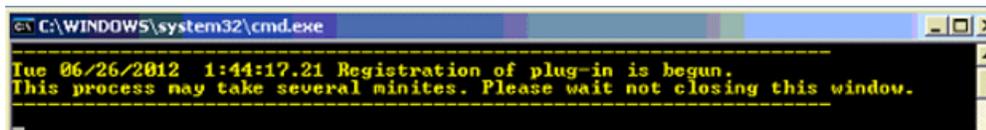
- Java JRE version 7 update 40
- SnapSAN S5000 software version 082R.007
- SnapSAN S5000 firmware version U22R.007
- Overland SnapSAN vCenter Plug-in version 1.2.001
- Emulex LPe11000
- VMware ESXi, 5.1, 799733
- VMware ESXi 5.1 iSCSI Software Adapter
- VMware vCenter Server, 5.1, 799733
- VMware vSphere Web Client 5.1.0, Build 786111

## Installing the vCenter Plug-in

1. From the vCenter plug-in installation package, double-click the installation **setup file**.
2. When the **Installation Wizard** is launched, click **Next** and follow these steps:
  - a. Read and accept the **terms** of the license agreement, and continue.
  - b. Browse the **installation path** and click **Next**.
  - c. Provide the **Port Numbers** (1, 2, 3 and 4) you want to use for the plug-in, and click **Next**.
  - d. Provide the vCenter Server **IP Address**, and click **Next**.

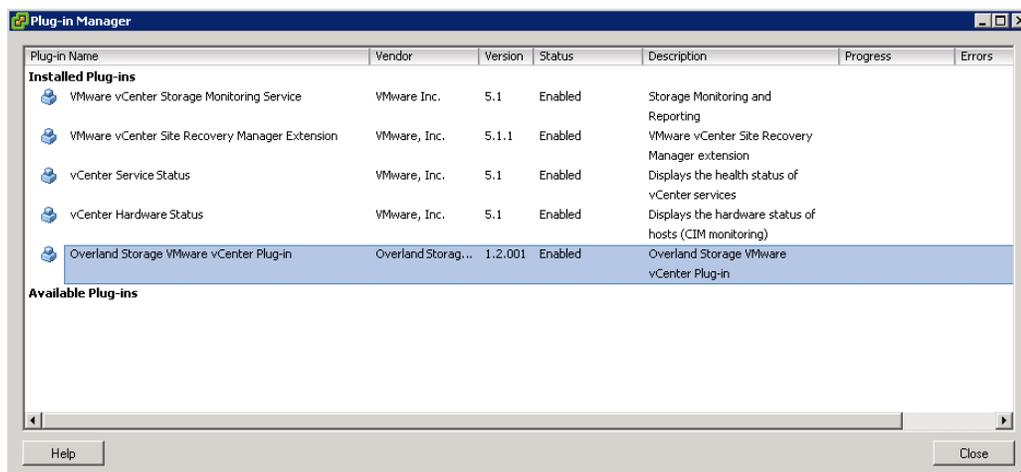
- e. Provide the **credentials** required to connect to the vCenter Server, and click **Next**. The following command prompt pops-up and the plug-in registration for the VMware vCenter Server starts.

NOTE: Do not close the command prompt when it appears.



3. Once the plug-in registration completes, when prompted, press **any key** to continue.
4. Click **Finish**.
5. Click **OK**.

The SnapSAN vCenter Plug-in is now installed, as shown in the following image:



## Array Configuration

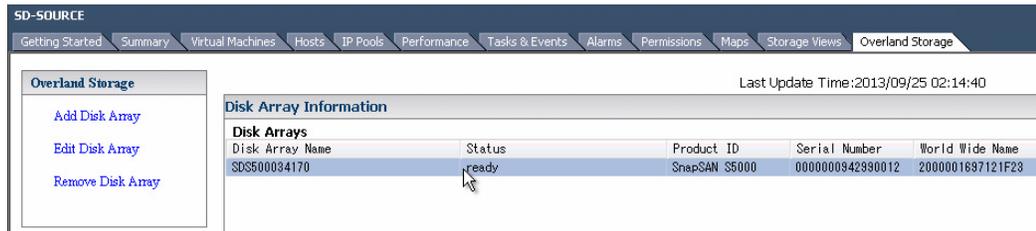
After installing the vCenter plug-in, the next step is to configure the SnapSAN array. Here is an overview of the tasks needed to be performed:

1. Add a disk array.
2. Create and Assign LUNs to a host.
3. Create a new datastore.
4. Expand the created datastore.
5. Assign a raw device mapping to the virtual machine.
6. Verify the datastore details.

### Adding a Disk Array

1. Login to the vSphere Client and navigate to **Home > Hosts and Clusters**.

- From the left pane, select the **Datacenter**, and from the right pane, select the **Overland Storage** tab.

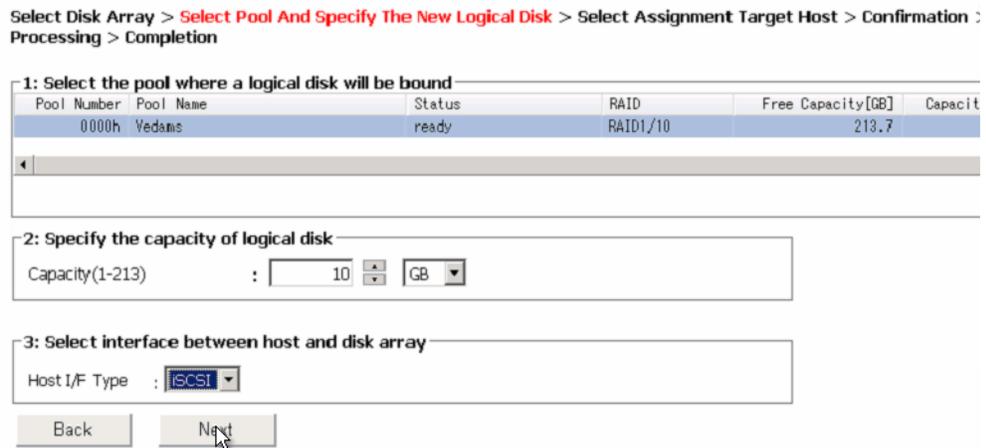


- Click the **Add Disk Array** link and provide the following details:
  - IP Address for connecting
  - User name
  - Password
- Click **Save**.

### Creating and Assigning LUNs to a Host

This section covers how to create and assign LUNs to a host through the vSphere Client console.

- From vSphere Client console, navigate to **Home > Hosts and Clusters**.
- Bind **logical disks** and assign them to a host:
  - From the left pane of the console, click the **Host** to which LUNs will be assigned.
  - Select the **Overland Storage** tab from the right pane.
  - Click **Logical Disk Bind and Assignment**.
  - Select the particular **disk array**, and click **Next**.
- The bound pools in the particular disk array are shown. Configure these three **options**:



- Select the **Pool**.
- Specify the LUN **size** for the logical disk.
- Using the drop-down list, select the interface to be used:
  - iSCSI**
  - FC**

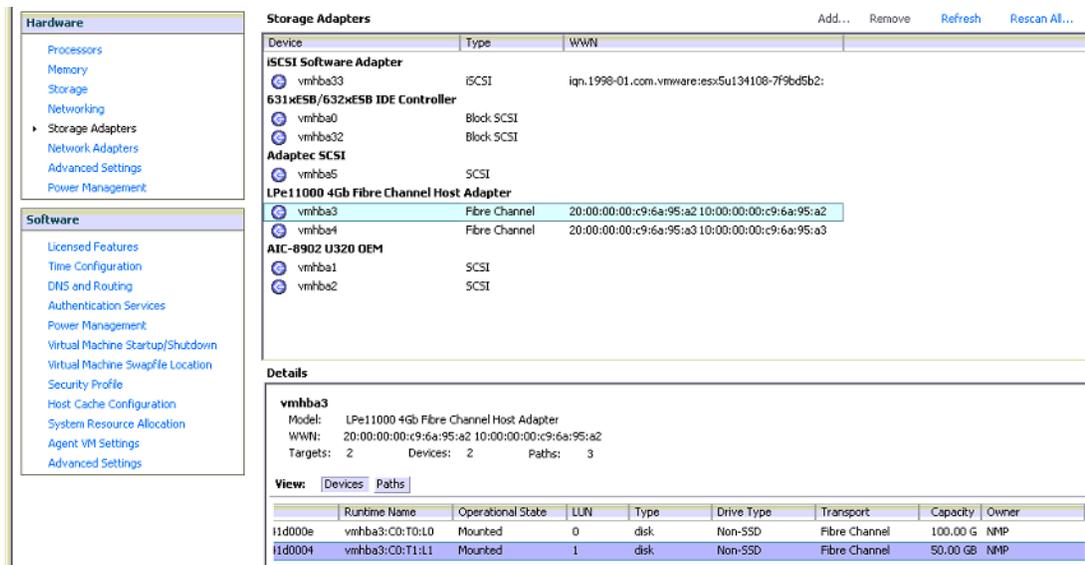
- d. Click **Next** to accept.
4. The selected host as the target is the only option at the next screen. Click **Next** again to start assigning LUNs to a particular host.



5. Click **Set**.

**Verifying if the LUNs are properly assigned to a host:**

1. From vSphere Client console, click the **Configuration** tab.
2. Select the **Storage Adapter** feature from the **Hardware** list.
3. Click **Rescan All** to make the LUN visible to a host.
4. From the **Storage Adapters** device list, select the correct Fibre Channel or iSCSI adapter. You can see the assigned LUN and its details:



**Creating New Datastore**

1. From vSphere Client console, go to **Configuration > Hardware > Storage**.
2. Click the **Add Storage** link.
3. At the **Add Storage** wizard, select **Storage Type > Disk/LUN** and click **Next** to start:
  - a. Select the **LUN** to create a datastore, and click **Next**.

- b. Select the preferred **File System Version**, and click **Next**.
- c. Review the **current disk layout** details, and click **Next**.
- d. Provide the **Datastore Name**, and click **Finish**.

You can see the created datastore under the **Datastore** list with its details below it.

Identification	Status	Device	Drive Type	Capacity	Free	Type	Last Update
datastore1	Normal	Local Adaptec Disk...	Non-SSD	2.04 TB	1.85 TB	VMF55	8/12/2012 9:50:10 PM
Overland-FC-Datastore	Normal	OVERLAND Fibre...	Non-SSD	9.75 GB	8.89 GB	VMF55	8/12/2012 9:50:05 PM
overland-storage-L1	Normal	OVERLAND iSCSI...	Non-SSD	24.75 GB	23.83 GB	VMF55	8/12/2012 9:50:05 PM

**Datastore Details**

**Overland-FC-Datastore** 9.75 GB Capacity

Location: /vmfs/volumes/50282573-8530d760-88da-003048358e55

Hardware Acceleration: Supported 880.00 MB Used

8.89 GB Free

Refresh Storage Capabilities

System Storage Capability: N/A

User-defined Storage Capability: N/A

## Expanding the Datastore

1. From vSphere Client console, select the **host** and click the **Overland Storage** tab.
2. Assign a **logical disk** (approximately 20 GB capacity) to that host.  
Refer to [Creating and Assigning LUNs to a Host](#).
3. From **Configuration > Hardware**, select **Storage Adapter** and click **Rescan All** or **Refresh** to make the LUN visible to the host.
4. Under the **Configuration > Hardware**, select **Storage**.
5. From the **Datastores** list, select the particular **datastore** to be extended.
6. From the **Datastore Details** section, click the **Properties** link.
7. Click **Increase**.
8. Select the **LUN** and click **Next**. Complete the capacity extension as prompted.
9. Click **Finish**.

The datastore is extended. You are moved back to the **Properties** dialog box where you can check the increased capacity of the datastore.

## Assigning a Raw Device Mapping (RDM) to the Virtual Machine

1. From vSphere Client console, navigate to **Home > Host and Clusters**.
2. Select the **host**.
3. Click the **Overland Storage** tab.
4. Assign **logical disk** (approximately 15 GB capacity) to that host.  
Refer to [Creating and Assigning LUNs to a Host](#).
5. From **Configuration > Hardware**, select **Storage Adapter** and click **Rescan All** or **Refresh** to make the LUN visible to the host.
6. From the left-pane, right-click the particular **Virtual Machine** and select **Edit Settings**.
7. Click **Add** to start the **Add Hardware** wizard:
  - a. Select **Raw Device Mappings**, and click **Next**.

- b. Select the **LUN**, and click **Next**.
  - c. Choose a **datastore** on which to store the LUN mapping, and click **Next**.
  - d. Select the **Compatibility Mode** to be applied to the virtual disk, and click **Next**.
  - e. Select the **Virtual Device Node**, and click **Next**.
  - a. Click **Finish**.
8. Click **OK** to assign the LUN as an RDM to the virtual machine.
  9. From the vSphere Client console, select the **Virtual Machine** from the left-pane and click the **Overland Storage** tab.  
You can see the RDM assigned to the virtual machine. If not, click the **Update** link to refresh the details and verify the updated information.

## Verifying the Datastore Details

1. From the vSphere Client console, select the **Host** and click the **Overland Storage** tab.
2. Select **Datastore Information**.
3. At the **Datastore Information** section, select the **datastore** for which the details are to be verified.  
The particular datastore details are displayed.

## Managing the SnapSAN Disk Array

### Editing Disk Array

Perform the following steps to edit a disk array:

1. From vSphere Client console, select **Datacenter**.
2. Click the **Overland Storage** tab.
3. Select the **disk array** of which details are to be modified.
4. Select the **Edit Disk Array** link. Change the user account details as per your requirements and click **Test**.

5. After successful testing, **Save** the disk array **information**.

## Deleting Disk Array

Perform the following steps to delete a disk array:

1. From vSphere Client console, select the **Datacenter**.
2. Click the **Overland Storage** tab.
3. Select the **disk array** to be deleted, and click **Remove Disk Array**.
4. At the confirmation, click **Perform**.

## Uninstall vCenter Plug-in

To uninstall the vCenter plug-in, perform the following steps:

1. Navigate to **Start > Setting > Control Panel**.
2. Double-click the **Add or Remove Programs** feature and then select the program **Overland Storage VMware vCenter Plug-in**.
3. Click **Uninstall**.
4. The un-install process starts. Click **Yes** to confirm.  
Un-registration of the plug-in starts automatically, in the command prompt.

**NOTE:** Do not close the command prompt when it appears.

5. After un-registering the plug-in, hit **any key** to proceed. The un-installation process continues.
6. Once the un-installation is **complete**, click **Finish**.