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Hitachi NAS vSphere APIs for Array Integration Installation Guide

Release 1.0

Hitachi Data Systems

MK-92HNAS029-01

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1

Installing the HNAS VAAI plugin

Install the Hitachi NAS vSphere APIs for Array Integration (HNAS VAAI) plugin when you have virtual machines (VMs) stored on Hitachi NAS Platforms, which are accessible using NFS from the VMware® ESXi™ host.

Installing the HNAS VAAI includes:

- Download the latest HNAS VAAI plugin package, available from the HDS Portal, on the Software Downloads > VMware Adapters page.
- Install the plugin on one or more VMware ESXi hosts using the VMware vSphere® Update Manager™ (VUM) or use the CLI installation.
- Verify the installation was successful.

☐ HNAS VAAI installation prerequisites

☐ Using VMware vSphere Update Manager (VUM)

☐ Installing HNAS VAAI using VUM

☐ Installing HNAS VAAI using CLI

☐ Verifying HNAS VAAI plugin installation

☐ Uninstalling HNAS VAAI

☐ Reference documentation

HNAS VAAI installation prerequisites

- Hitachi NAS File Operating System (NAS File OS) 11.2, or later, with a valid Hitachi NAS File Clone license installed.
- VMware vSphere® v5.x with Update Manager installed (or else use the CLI-based installation).

Note: Only install the HNAS VAAI plugin if you have:

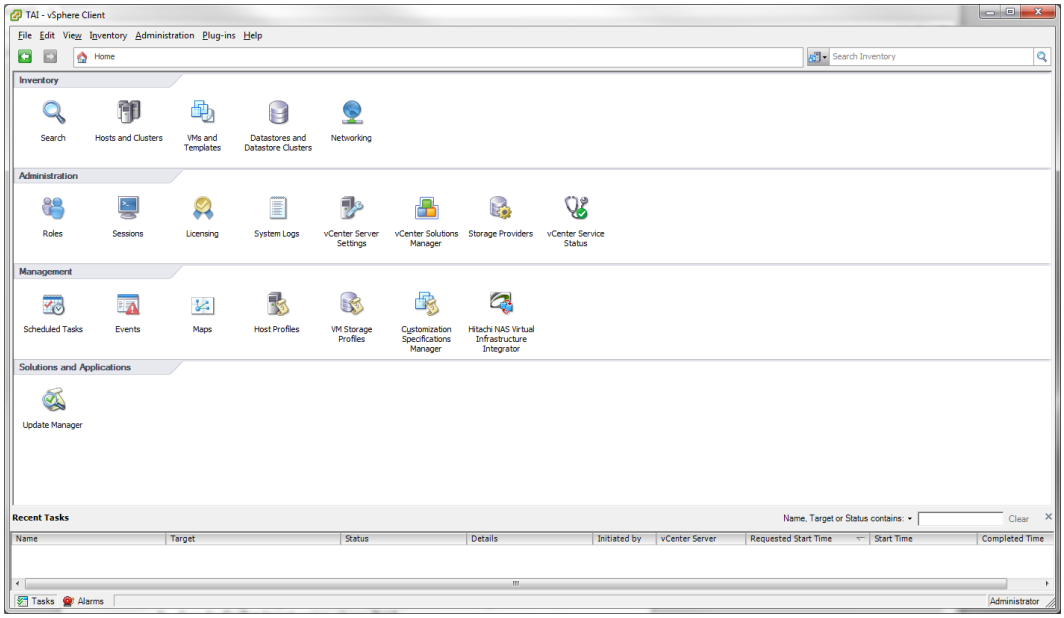
- virtual machines (VMs) stored on Hitachi NAS Platforms, which are accessible using NFS from the VMware ESXi host.
- a valid Hitachi NAS File Clone license installed.

Using VMware vSphere Update Manager (VUM)

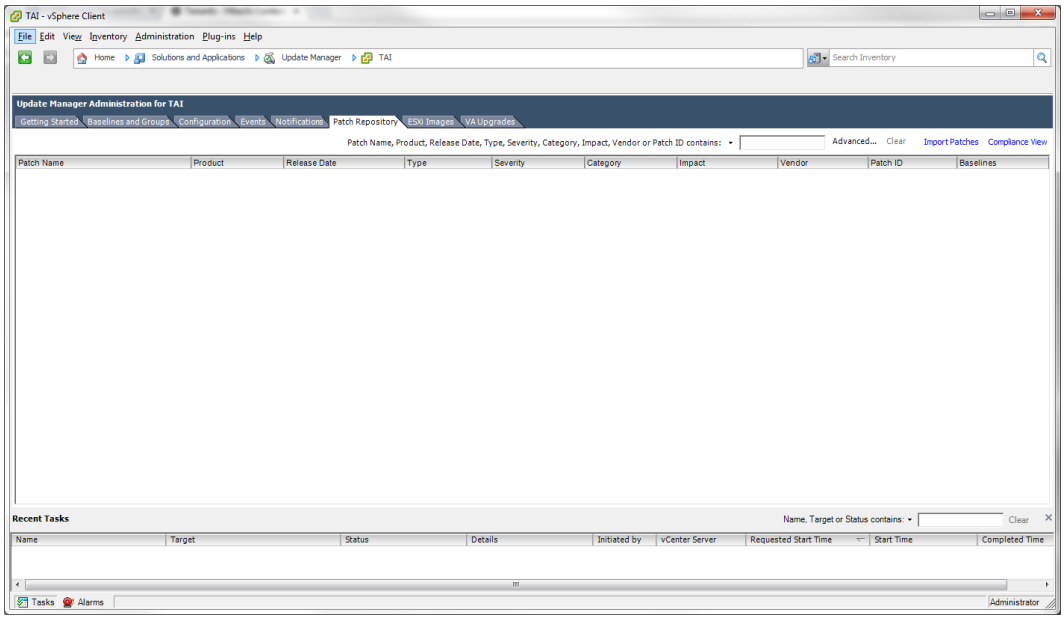
You must first import the HNAS VAAI plugin package to VUM before installing.

Procedure

1. Log in to the vCenter server through a vSphere client.



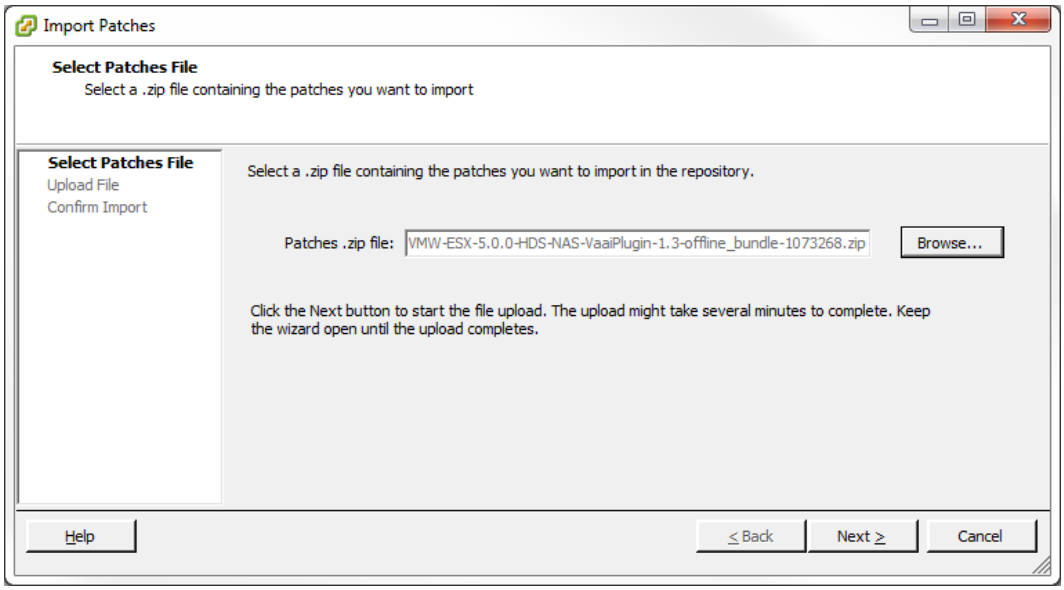
2. From the **Home** page, click **Update Manager** in **Solutions and Applications**, and then select the **Patch Repository** tab.



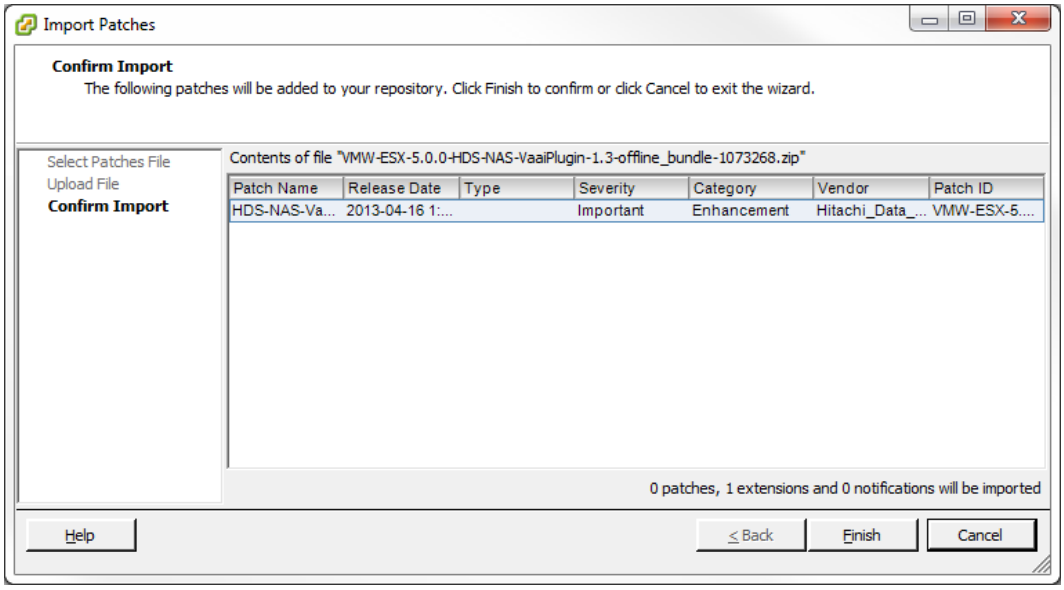
3. On the upper-right corner of the tab, click **Import Patches**.
4. Select the HNAS-VAAI zip package that was previously downloaded, and then click **Next**.

Tip: The VAAI-HNAS zip package that was downloaded from the HDS portal may have a name such as zip-00sa029-01--usah1-xxxxx.zip, depending on the release version. You can rename the package to HDSNASVaaiPlugin.zip to make it easier to find.

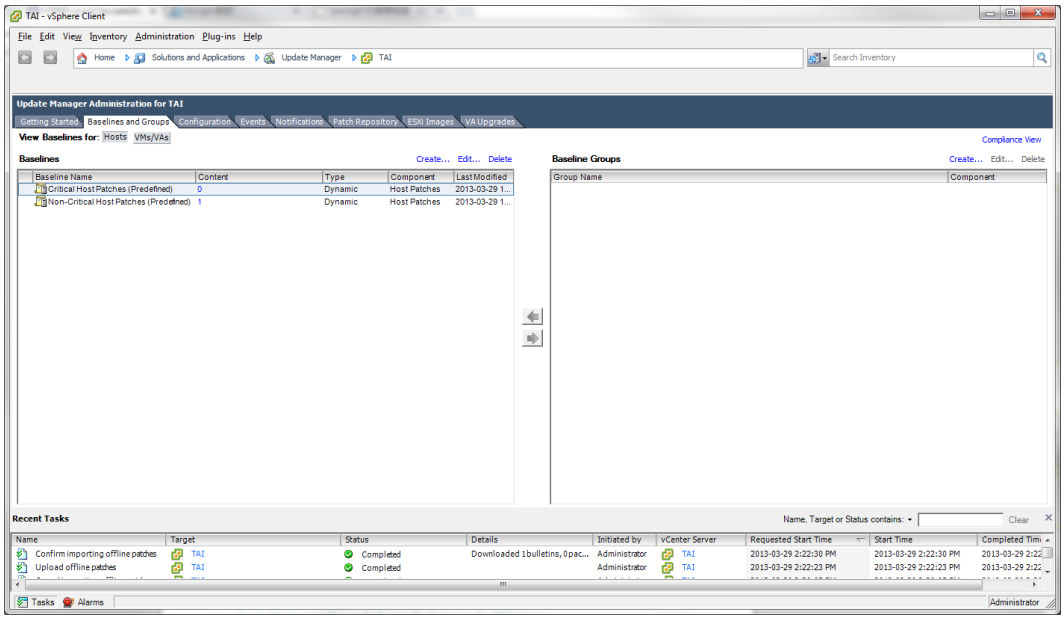
Note: If a security warning displays, click **Ignore** to continue.



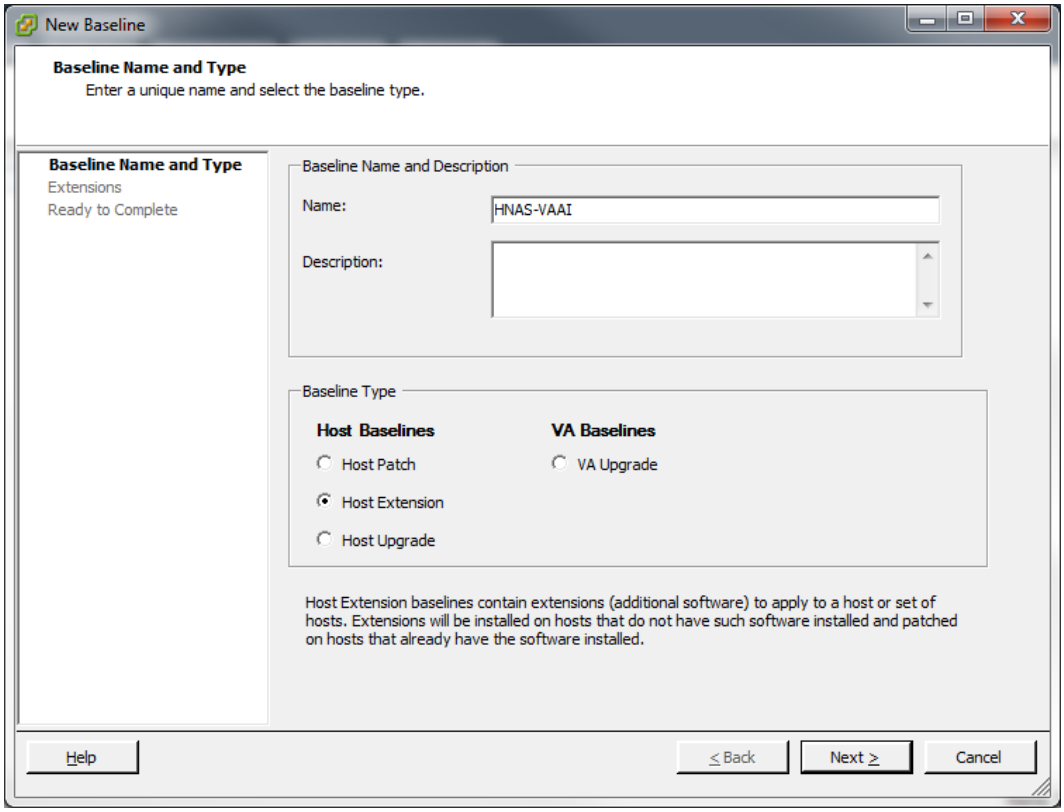
5. Click **Finish** to confirm the import.



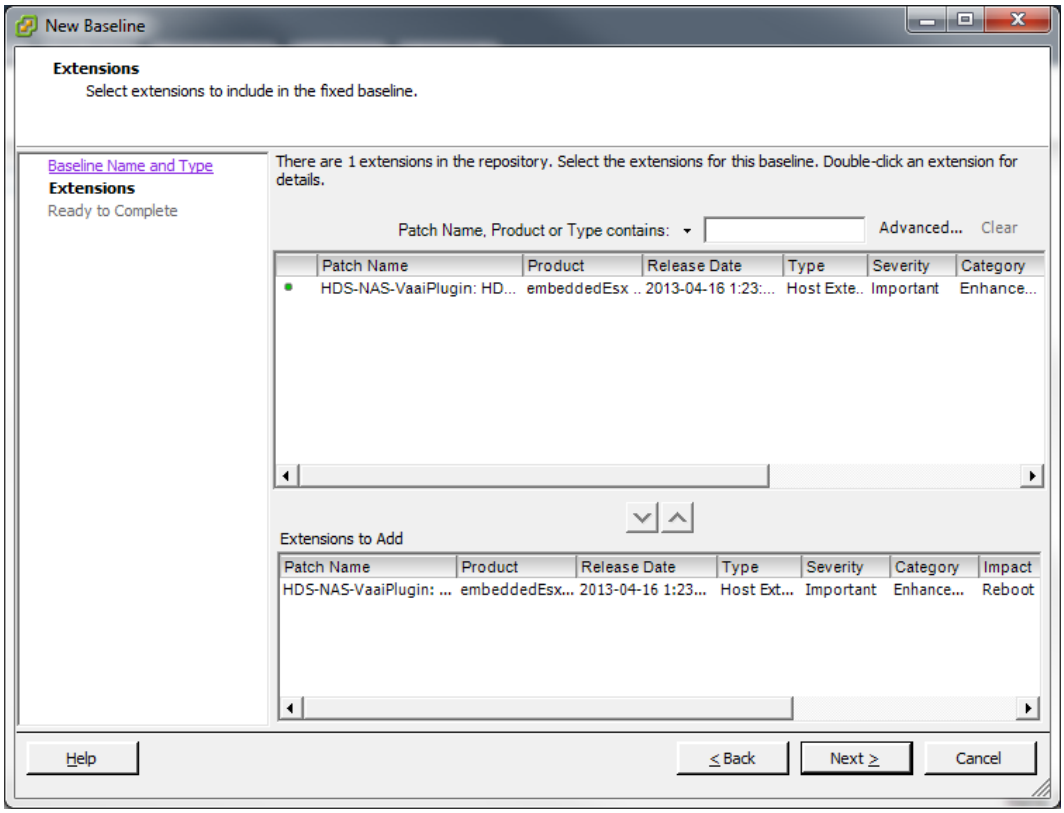
6. Select the **Baselines and Groups** tab, and click **Create** in the **Baselines** pane.



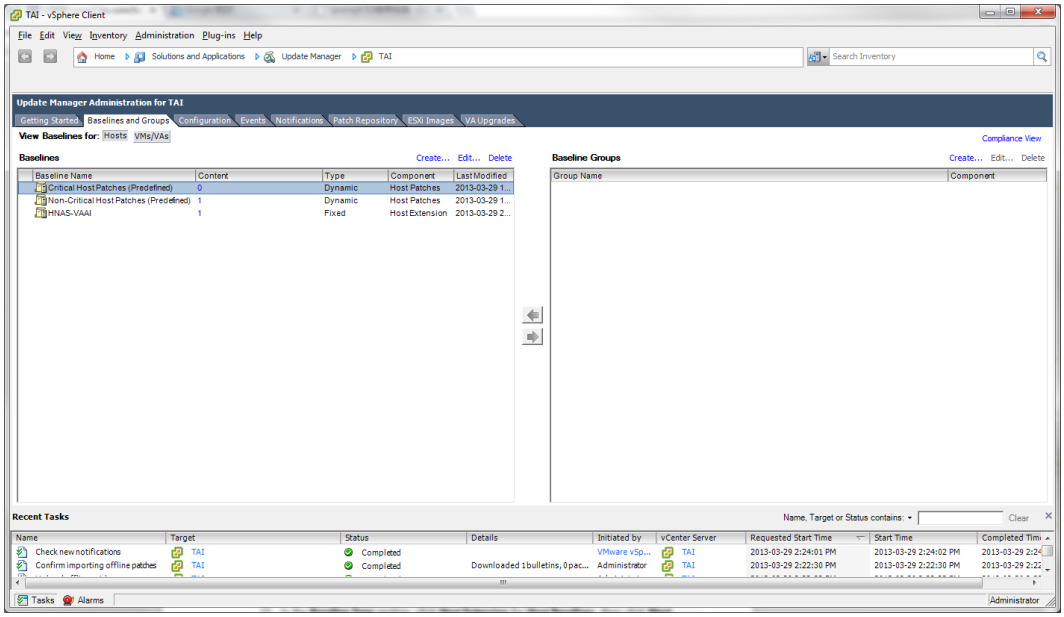
7. Enter a name for your baseline in **Baseline Name and Description**; for example: `HNAS-VAAI`.
8. In **Baseline type**, select **Host Extension**, and then click **Next**.



9. Select **HDS-NAS-VaaiPlugin** from the extensions list, click the arrow to add the extension, and then click **Next**.



10. Click **Finish**; the **HNAS-VAAI** baseline should appear in the **Baselines** section.

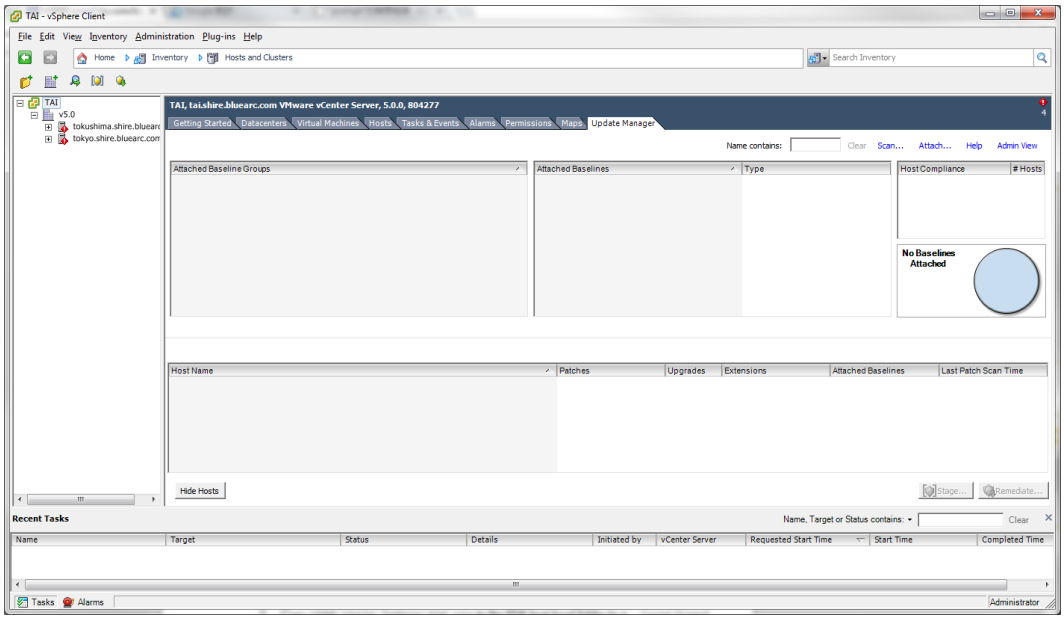


Installing HNAS VAAI using VUM

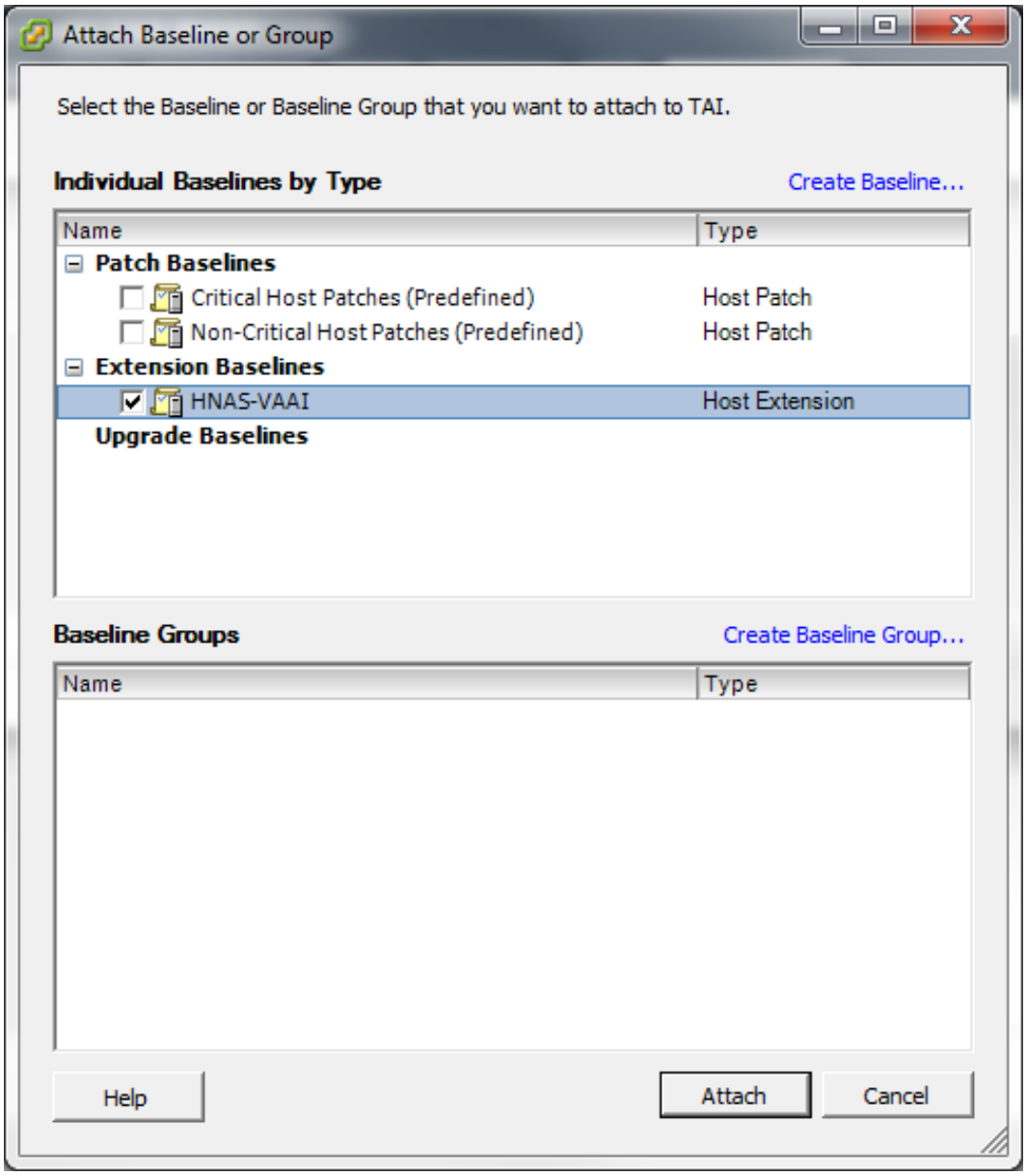
Note: The targeted ESXi host enters a maintenance mode and will reboot during this installation process.

Procedure

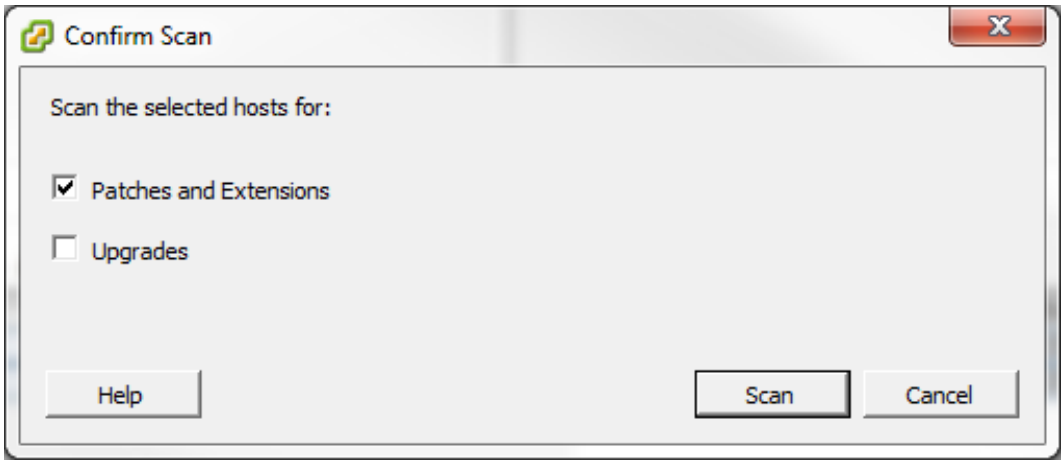
1. From the **Home** page, click **Hosts and Clusters**, select the vCenter icon, and then select the **Update Manager** tab.



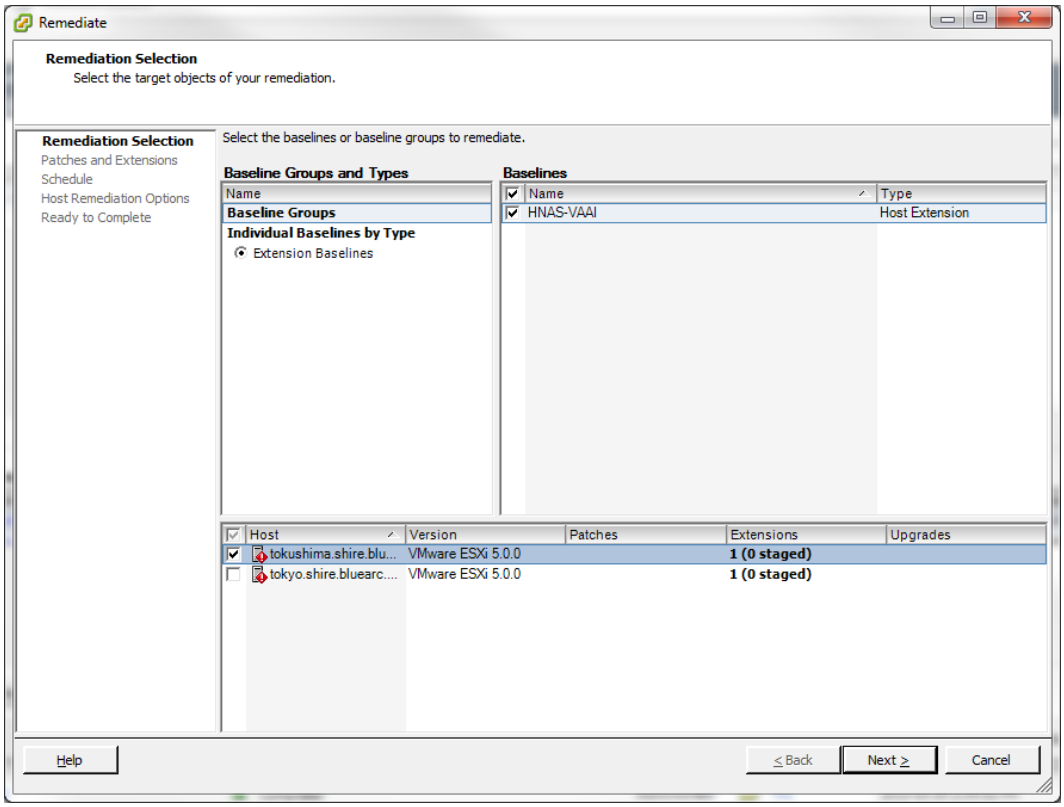
2. On the upper-right corner of the tab, click **Attach**.
3. In the **Extension Baseline** section, select **HNAS-VAAI**, and then click **Attach**.



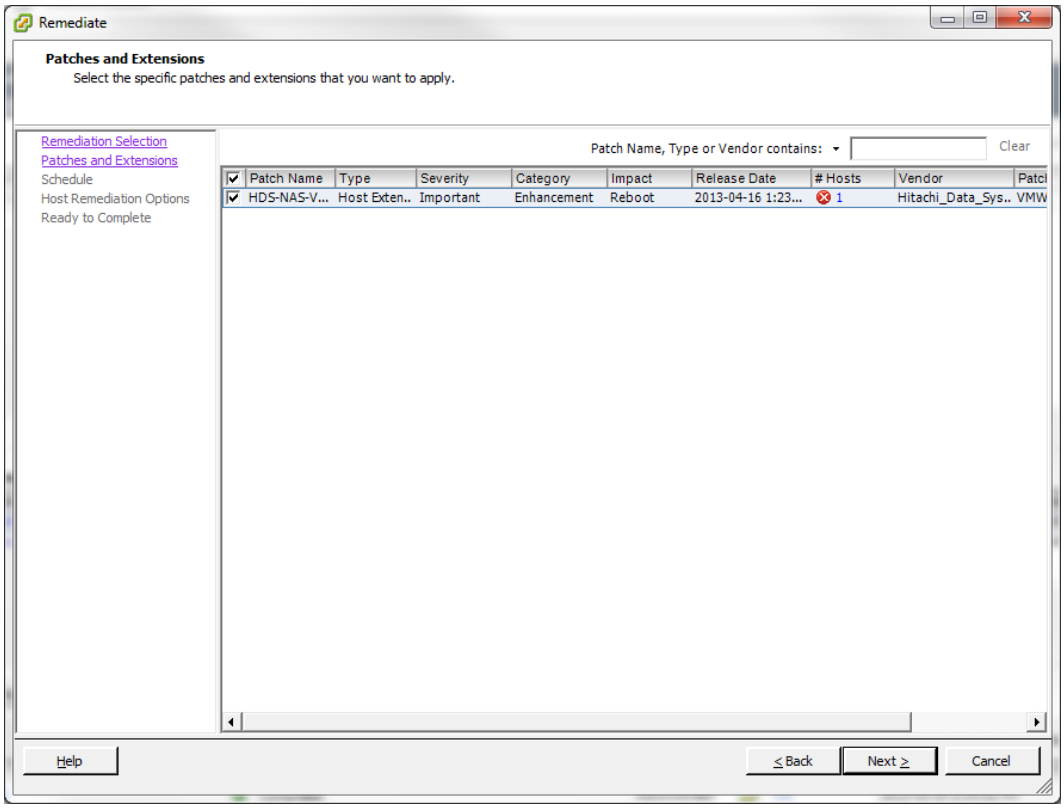
4. On the upper-right corner, click **Scan**.
5. On **Confirm Scan**, fill the check box for **Patches and Extensions**, and then click **Scan**.



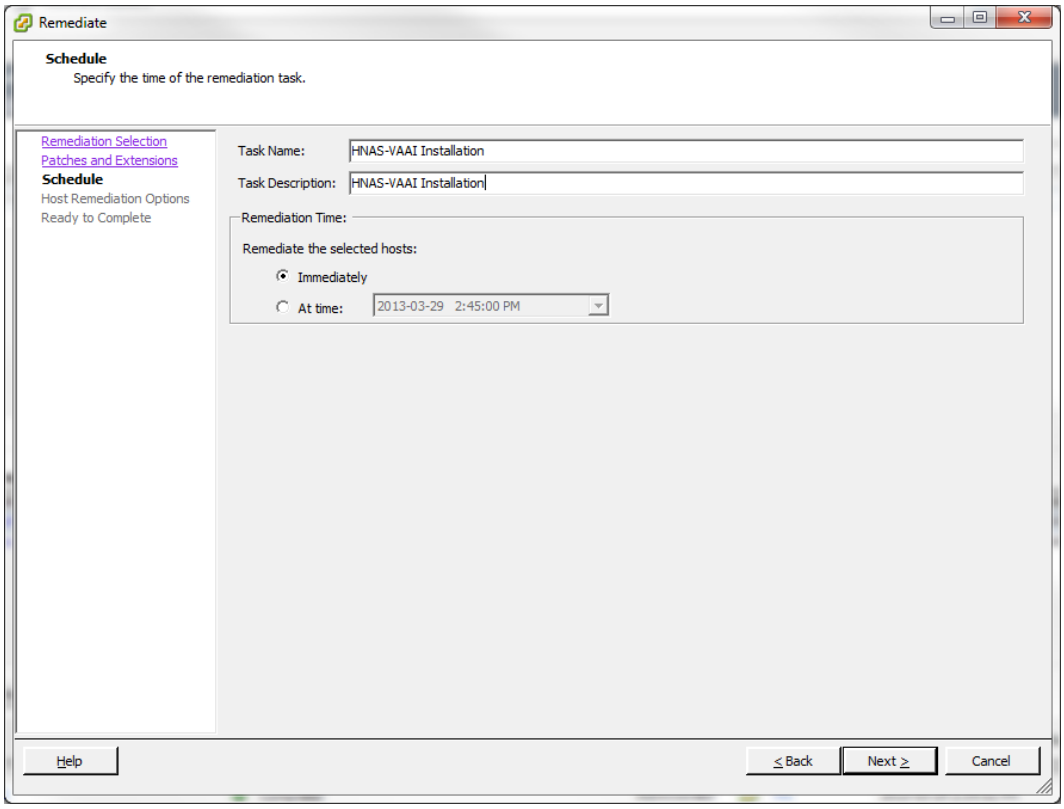
6. Click **Remediate**, select a host that you want to remediate, and then click **Next**.



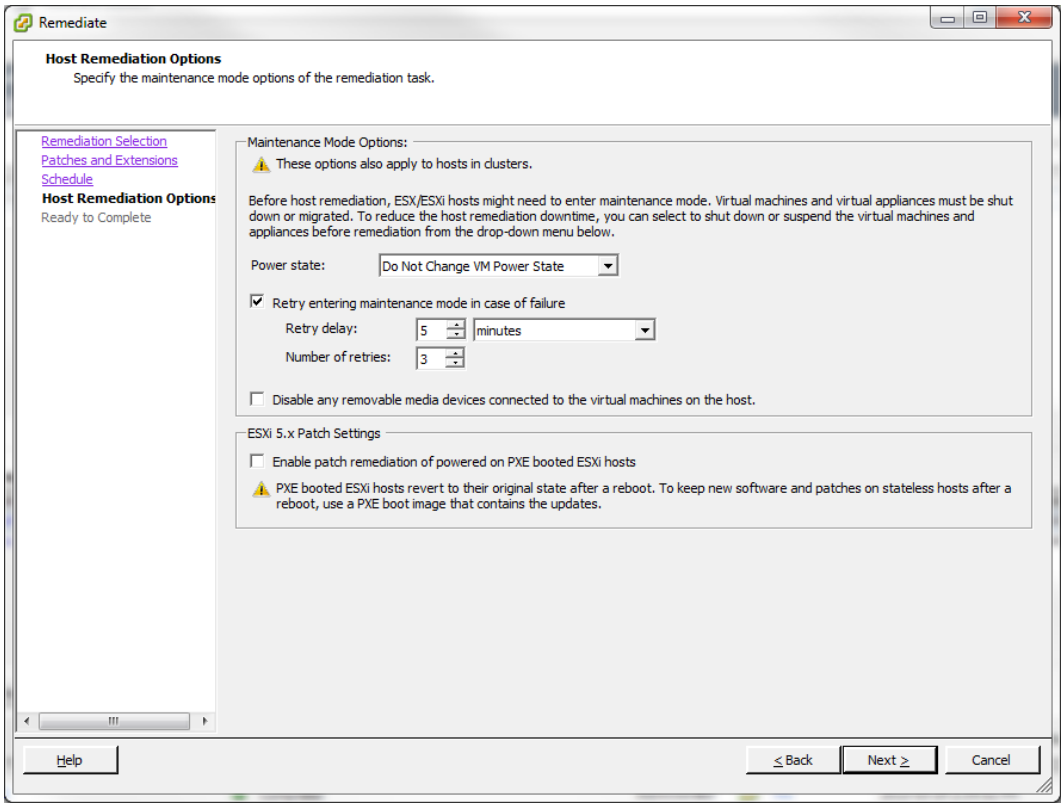
7. Click **Next** to skip the **Patches and Extensions** section.



8. Enter a task name and description, select a remediation time, and then click **Next**.



9. Select the related information, and then click **Next**.



10. Click **Finish** to complete the installation.

Installing HNAS VAAI using CLI

Tip: The VAAI-HNAS zip package that is downloaded from the HDS portal may have a name such as zip-00sa029-01--usah1-xxxxx.zip, depending on the release version. You can rename this package to HDSNAS-VaaiPlugin.zip to make it easier to find.

Tip: To put the zip package on the ESXi host, you can use PUTTY Secure Copy (PSCP). For example, you can use the following command:

```
./pscp HDSNAS-VaaiPlugin.zip root@ESXinode1.world.local:/tmp
```

Procedure

1. From the VMware ESXi CLI, enter `esxcli software vib install -d` *`local_path`* to install the plugin on the host.

   local_path is the path to the offline bundle (`.zip`), which must be available on the ESXi host.

   local_path example:

```
~ # esxcli software vib install -d /tmp/HDSNAS-VaaiPlugin.zip
Installation Result
   Message: The update completed successfully, but the
system needs to be rebooted for the changes to be effective.
   Reboot Required: true
   VIBs Installed: Hitachi_Data_Systems_bootbank_vmware-esx-
HDSNAS-VaaiPlugin
   VIBs Removed:
   VIBs Skipped:
```

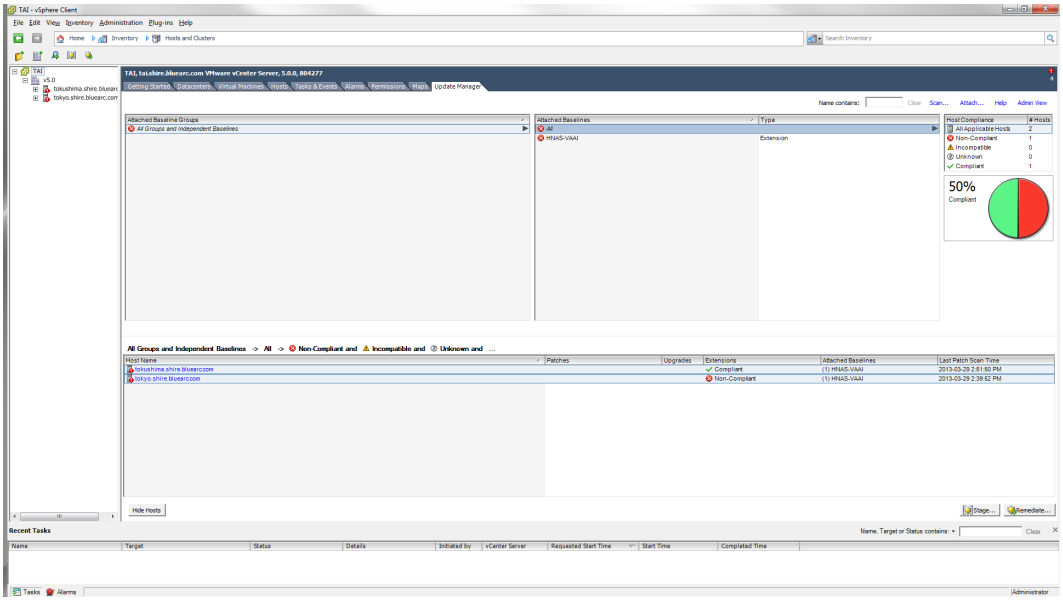
2. Reboot the ESXi host to complete the installation.

Verifying HNAS VAAI plugin installation

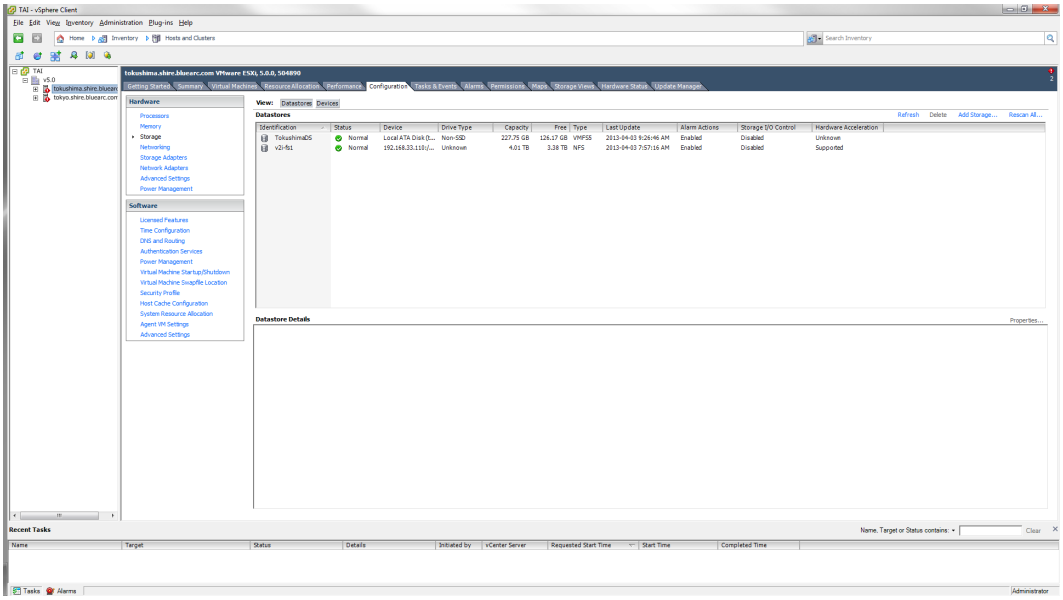
Procedure

1. To verify the HNAS VAAI plugin installation:

   - If you installed the plugin using the Update Manager, go to **Home > Update Manager**, and locate the **Extensions** column. If `Compliant` lists, then the HNAS VAAI plugin installed correctly.



- If you installed using the CLI, go to **Home > Inventory > Hosts and Clusters > Configuration > Storage**, and locate the **Hardware Acceleration** column. If `Supported` lists for a datastore that you know to be an HNAS file system, then the HNAS VAAI plugin installed correctly.



From the VMware ESXi CLI, enter `esxcli software vib list | grep -i Hitachi` and `esxcli software vib get --vibname=vmware-esx-HDS-NAS-VaaiPlugin` to verify that the plugin successfully installed on the host. For example:

```
~ # esxcli software vib list | grep -i Hitachi
vmware-esx-HDS-NAS-VaaiPlugin  1.3
Hitachi_Data_Systems  VMwareAccepted  2013-04-16
```

```
~ # esxcli software vib  get --vibname=vmware-esx-HDS-NAS-
VaaiPlugin
Hitachi_Data_Systems_bootbank_vmware-esx-HDS-NAS-
VaaiPlugin_1.3
   Name: vmware-esx-HDS-NAS-VaaiPlugin
   Version: 1.3
   Type: bootbank
   Vendor: Hitachi_Data_Systems
   Acceptance Level: VMwareAccepted
   Summary: HDS-NAS-VaaiPlugin: NAS-VAAI Plug-in for
VMware ESXi
   Description: NAS-VAAI Plugin for Hitachi NAS Platform
   Release Date: 2013-04-16
   Depends:
   Conflicts:
   Replaces:
   Provides:
   Maintenance Mode Required: False
   Hardware Platforms Required:
   Live Install Allowed: False
   Live Remove Allowed: False
   Stateless Ready: False
   Overlay: False
   Tags:
   Payloads: vmware-esx-HDS-
```

Uninstalling HNAS VAAI

Procedure

1. Using the VMware ESXi CLI on the host, enter `esxcli software vib remove --vibname=vmware-esx-HDS-NAS-VaaiPlugin` to uninstall HNAS VAAI.
   Example output:

   ```
   ~ # esxcli software vib remove --vibname=vmware-esx-HDS-NAS-
   VaaiPlugin
   Removal Result
      Message: The update completed successfully, but the
   system needs to be rebooted for the changes to be effective.
      Reboot Required: true
      VIBs Installed:
      VIBs Removed: Hitachi_Data_Systems_bootbank_vmware-esx-
   HDS-NAS-VaaiPlugin_1.3
      VIBs Skipped:
   ~ #
   ```
2. Reboot the ESXi host to complete the uninstallation.

Reference documentation

For more information about VMware vSphere Storage, see:

- *vSphere Storage ESXi 5.1 vCenter Server 5.1*

http://pubs.vmware.com/vsphere-51/topic/com.vmware.ICbase/PDF/vsphere-esxi-vcenter-server-51-storage-guide.pdf

- *vSphere Storage ESXi 5.0 vCenter Server 5.0*
  http://pubs.vmware.com/vsphere-50/topic/com.vmware.ICbase/PDF/vsphere-esxi-vcenter-server-50-storage-guide.pdf
- VMware Knowledge Base "vStorage APIs for Array Integration FAQ" article:
  http://kb.vmware.com/selfservice/documentLinkInt.do;jsessionid=E80922302F50FE1DE939310F7A4C7FB9?micrositeID=null&externalID=1021976

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