



NexentaConnect for VMware Virtual SAN QuickStart Installation Guide 1.0.2 FP1

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Subject: NexentaConnect for VMware Virtual SAN QuickStart
Installation Guide

Software: NexentaConnect for VMware Virtual SAN

Software Version: 1.0.2 FP1

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NexentaConnect Installation QuickStart

About NexentaConnect

NexentaConnect for VMware Virtual SAN is a Nexenta product that provides a user interface to manage file services on top of VMware Virtual SAN.

NexentaConnect for VMware Virtual SAN delivers the following features:

- Network Attached Storage (NAS) for VMware Virtual SAN (NFS and SMB)
- Storage performance and health monitoring
- Storage acceleration and data reduction
- Snapshot services on per share level

System Requirements

Your environment must meet the following system requirements:

Supported Software Versions

Product	Versions supported
NexentaConnect™ for VMware Virtual SAN	1.0.2 FP1
VMware™ vCenter Server	5.5 Update 2b, 6.0
VMware™ ESXi	5.5 Update 2, 6.0
VMware™ Virtual SAN	5.5 (1.0), 6.0
EVO:RAIL	1.x

Installation Tasks

- Meet the prerequisites
- Verify your environment with the pre-installation checklist
- Download the images
- Deploy NexentaConnect Manager
 - Configure a static IP address for NexentaConnect Manager
- Deploy Nexenta IO Engine Image
- Install NexentaConnect for VMware Virtual SAN Web Client Plugin on:
 - Windows (VMware vCenter) or
 - Linux (VCSA)
- Configure NexentaConnect for VMware Virtual SAN components
 - NexentaConnect Manager
 - VMware vCenter
 - Network Settings
- Register NexentaConnect for VMware Virtual SAN

Installing NexentaConnect for VMware Virtual SAN

Pre-Installation Checklist

Before you install NexentaConnect for VMware Virtual SAN, verify that your environment meets the following prerequisites using the checklist below.

Components	
Hardware	
	<p>Meet the VMware VSAN hardware requirements provided in the following links:</p> <ul style="list-style-type: none"> For 6.0 - http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2106708 For 5.5 - http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2058424
	Nexenta recommends to use 10 GbE with Jumbo Frames enabled for connectivity to NFS and SMB clients.
Software	
	<p>Required Components:</p> <ul style="list-style-type: none"> VMware Virtual SAN 5.5 Ux or 6.0 Refer to System Requirements
Infrastructure	
	<p>Required Components</p> <ul style="list-style-type: none"> Provisioned VSAN Datastore DHCP for IO Engine management network
	<p>NexentaConnect Manager may be located anywhere on the management cluster. However, VMware vCenter Server, NexentaConnect Manager, IO Engine Template, and the management port group of Nexenta IO Engine must use the same network. These components communicate with each other to provide monitoring and file services.</p> <p><i>Note:</i> For continuous availability, Nexenta recommends using Static IP address for NFS. Use 9000 MTU for better availability.</p>
	Ensure Active Directory users and groups are set up to be used for SMB shares if SMB shares are planned to be part of a domain.
	Allocate 3GB memory to run NexentaConnect Manager on the management ESXi host.
	Allocate 16GB memory to run Nexenta IO Engine on the VSAN ESXi cluster.
	Enable VMware High Availability on VSAN ESXi cluster.
	Assign a dedicated IP address for File Services (Nexenta IO Engine).
	Synchronize time throughout all infrastructure (Domain Controller, VMware ESXi hosts, and vCenter Server).

Components	
	Ensure that VMware Storage Policies are created.
	Verify that VMware Virtual SAN is successfully deployed. You can verify the deployment by creating a virtual machine in the VMware VSAN datastore.
Other Requirements	
	VMware support license to submit support request, if needed.

Figure 1: Network configuration after installing IO Engine Image and before creating first share.

Note: NC Manager and IO Engine Image (Template) must be on the same network as shown in Figure.

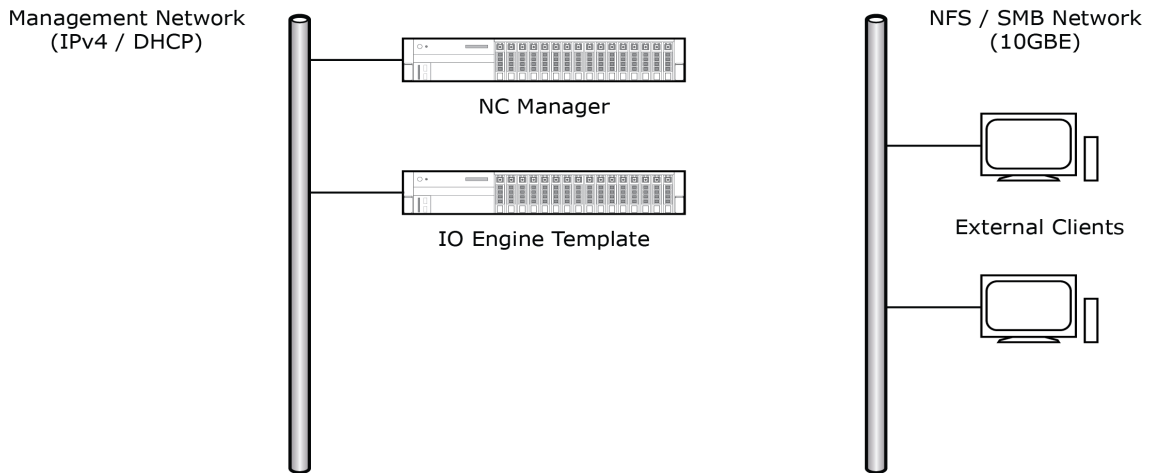
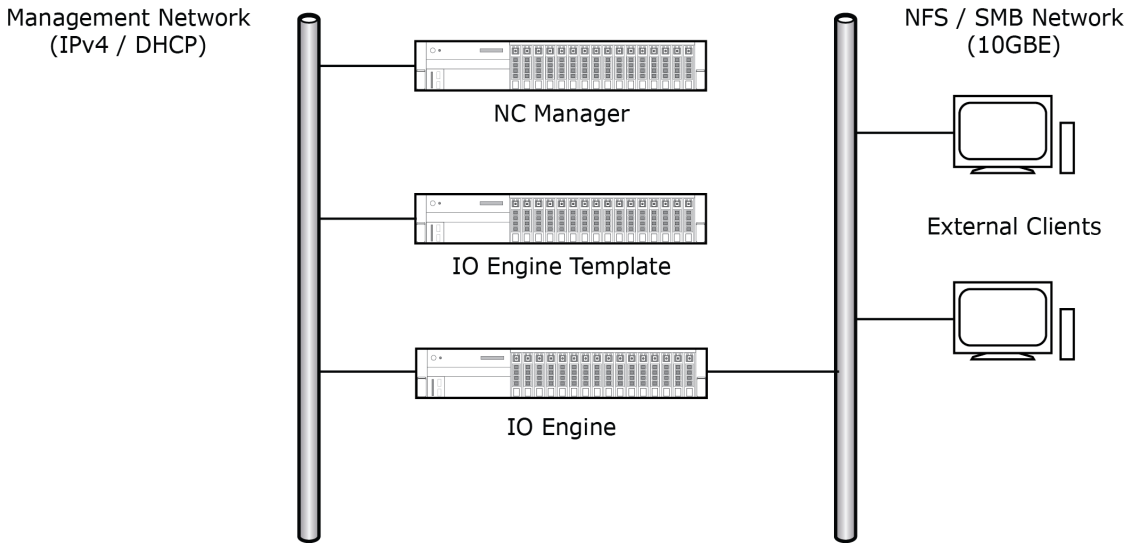


Figure 2: Network configuration after creating first share.

Note: NC Manager, IO Engine template, and IO Engine itself are on the same management network, and a separate network is used between IO Engine and NFS/SMB Clients. The share creation automatically provisions IO Engine and adds/modifies network interfaces.



Installation Files

NexentaConnect for VMware Virtual SAN includes the following:

Installation Files	
NexentaConnect Manager OVF template	Processes all operations that you perform using NexentaConnect for VMware Virtual SAN. Deploy NexentaConnect Manager from the OVF template. See Deploying NexentaConnect Manager
Nexenta IO Engine OVF template	Provides files services to NexentaConnect for VMware Virtual SAN. Deploy Nexenta IO Engine Image from an OVF template. See Deploying Nexenta IO Engine Image
NexentaConnect for VMware vSphere Web Client Plugin	Nexenta provides the following Installer versions: <ul style="list-style-type: none"> • See Installing NexentaConnect for VMware Virtual SAN Web Client Plugin on VMware vCenter (Windows) • See Installing NexentaConnect for VMware vSphere Web Client Plugin on VCSA (Linux)

Installation Steps

NexentaConnect for VMware Virtual SAN installation includes the following tasks:

- [Deploying NexentaConnect Manager](#)
- [Deploying Nexenta IO Engine Image](#)
- [Installing NexentaConnect for VMware Virtual SAN Web Client Plugin on VMware vCenter \(Windows\)](#)
- [Installing NexentaConnect for VMware vSphere Web Client Plugin on VCSA \(Linux\)](#)

Deploying NexentaConnect Manager

- Deploy NC Manager OVF on top of management ESXi cluster.
- Select management port group that has DHCP or setup a static IP via console.
 - ❖ *To deploy NexentaConnect Manager, using VMware vSphere Web Client:*
 1. Select VMware vCenter server where VMware VSAN is installed.
 2. Right-click on the corresponding ESXi server.
 3. Select **Deploy OVF template**.
If prompted, download and install the VMware Client Integration Plugin.
 4. If prompted, in the **Client Integration Access Control** window, click **Allow**.
 5. Browse to the location of the .ovf file or provide a URL.
 6. Review the OVF template details and click **Next**.
 7. Specify a name and location for the virtual machine.
 8. Select a host on which to run the virtual machine.
 9. Specify a datastore on which to store the virtual machine files.
 10. Select a network.
 11. In the Ready to complete screen, click **Finish**.
 12. After the installation completes, right-click on the virtual machine and select **Power On**.
This virtual machine must always be powered on.
 13. Proceed to [Configuring a Static IP Address for NexentaConnect Manager](#).

Configuring a Static IP Address for NexentaConnect Manager

When you power on the NexentaConnect Manager virtual machine, a random IP address is assigned to the virtual machine from the DHCP server. Change the IP address to a static IP address from a desired network.

- ❖ *To configure a static IP address for NexentaConnect Manager, using VMware vSphere Client:*
 1. In the Inventory, select the NexentaConnect Manager virtual machine.

2. Click the **Summary** tab.
3. Click **Launch Console**.
The console opens in a pop-up window.
4. In the **NexentaConnect Post-Install Wizard**, click **Configure Network Interface**.
5. In the **Setup Hostname** dialog box, type the static IP address for NexentaConnect Manager.
6. Assign a network mask address, a gateway, and a domain name server(s).
Consult with your network administrator for the required values.
7. Click **OK**.

Deploying Nexenta IO Engine Image

❖ *To deploy the Nexenta IO Engine Image:*

1. Repeat [Step 1](#) to [Step 11](#) from [Deploying NexentaConnect Manager](#) using the Nexenta IO Engine image.
2. Verify that the newly deployed virtual machine is powered off.

Note: Do not power on the Nexenta IO Engine virtual machine. The machine should be powered off and available for cloning operation.

Installing NexentaConnect for VMware Virtual SAN Web Client Plugin on VMware vCenter (Windows)

The NexentaConnect for VMware Virtual SAN Web Client Plugin must be installed on the Windows server with VMware vCenter installed.

If you want to install NexentaConnect for VMware vSphere Web Client Plugin on the VMware vCenter Server Linux Virtual Appliance (VCSA), see [Installing NexentaConnect for VMware vSphere Web Client plugin on VCSA](#).

❖ *To install NexentaConnect for VMware Virtual SAN on VMware vCenter Server:*

1. On the Microsoft Windows Server, run the installer file using **local or domain administrator account**.
2. In the **Welcome** screen, click **Next**.
3. In the **Custom Setup** screen, click **Next**.
4. Optionally, modify the installation destination.
5. Accept the terms of the License Agreement.
6. In the **NexentaConnect Manager Configuration** screen, type the NexentaConnect Manager IP address.
7. Click **Validate**.

If NexentaConnect Manager is connected, a success message displays.

8. In the **VMware vCenter Credentials** screen, type credentials for a VMware vCenter Server user with administrative prerequisites.
9. Click **Validate**.
If VMware vCenter is connected, a success message displays.
10. In the **Ready to install NexentaConnect for VMware Virtual SAN** screen, click **Install**.
Installation may take some time.
11. After installation completes, click **Finish**.

Installing NexentaConnect for VMware vSphere Web Client Plugin on VCSA (Linux)

Follow the steps to install the Web Client Plugin in VCSA.

- ❖ *To install NexentaConnect for VMware vSphere Web Client Plugin on VCSA:*
 1. Download the NexentaConnect for VMware vSphere Web Client Plugin archive from nexenta.com.
 2. Log in to the VCSA as root using SSH.
 3. Create directory /installer.
 4. Copy the installer archive to the VCSA into this directory.
To copy the archive, you can use WinSCP, if you copy from a Windows machine, or use the `scp` command.
 5. Unpack the installer archive to any folder:
`tar -xvf <archive name>`
 6. Change directory to /installer:
`cd installer`
 7. Use the `installer.sh` script to install NexentaConnect for VMware Virtual SAN:
`./install.sh -action install -vcuser root -nexenta <nc_manager_ip>`
System response:
Picked up JAVA_TOOL_OPTIONS: -Xms16M -Xmx128M
Enter your vCenter[localhost] password:
 8. Type the password for the user you specified in [Step 7](#).
 9. Proceed to [Configuring NexentaConnect for VMware Virtual SAN](#).

Configuring NexentaConnect for VMware Virtual SAN

To start working with the NexentaConnect for VMware Virtual SAN, complete the following tasks:

Configuring NexentaConnect Manager

Configure the NexentaConnect Manager settings to establish communication between NexentaConnect Web Client and NexentaConnect Manager. You can edit these settings later.

❖ *To configure NexentaConnect Management Server Settings:*

1. Log in to the VMware vSphere Web Client.
2. Click **NexentaConnect Settings > NexentaConnect Settings**.
3. Click **Edit**.
4. Fill in the following fields:

Manager IP Address IP address of the NexentaConnect Manager that was deployed with the NexentaConnect for VMware Virtual SAN Plugin. Locate the NexentaConnect Manager on the VMware vCenter server and look up the IP address in the settings.

IO Engine Image Name Template name for the IO Engine. Default is `NexentaConnect IO Image`. If you renamed the template, specify the new name in this field. Otherwise, when you provision the folder for the first time, NexentaConnect Manager is not able to find the template, and the shared folder creation fails.

5. Click **OK**.
6. Click **Validate**.

Configuring VMware vCenter

Specify the VMware vCenter settings to enable communication between VMware vCenter Server and NexentaConnect for VMware Virtual SAN.

❖ *To configure VMware vCenter settings:*

1. Log in to the VMware vSphere Web Client.
2. Click **NexentaConnect Settings > VMware vCenter Settings**.
3. Click **Edit**.
4. Fill the following fields

Protocol Protocol for connection between VMware vCenter Server and NexentaConnect Manager. Default is `https`. Nexenta recommends that you do not change this setting.

IP Address	IP address of the VMware vCenter Server on which VMware VSAN is configured
User Name	VMware vCenter user with administrative privileges
Password	Password for the administrative user

5. Click **OK**.
6. Click **Validate**.

Configuring Network Settings

Before you create any shares, configure network settings to join the Nexenta IO Engine to an Active Directory domain or a workgroup.

❖ *To configure network settings:*

1. Log in to the VMware vSphere Web Client.
2. Click **NexentaConnect Settings > Configure Network**.
3. Select the network type from the following options:
 - **Domain**
 - **Workgroup**
4. If you want to join the Nexenta IO Engine to a **Domain**, fill the following fields:

Domain	Domain name of the Microsoft Windows Active Directory domain server. You must have Active Directory installed and configured.
Domain User	Domain Administrator user
Domain Password	Password for the Domain Administrator user
Name Servers	IP address of the DNS server(s)

5. If you selected to join the Nexenta IO Engine to a **Workgroup**, fill the following fields:

Workgroup	Name of the workgroup
Name Servers	IP address of the DNS server(s)

6. Click **OK**.

Registering NexentaConnect for VMware Virtual SAN

To complete the NexentaConnect for VMware Virtual SAN initial configuration, register the product. If you are using a trial version of the product, the license key is not required. NexentaConnect for VMware Virtual SAN will be fully functional during the trial period.

To get an enterprise license, see nexenta.com/VSAN or contact sales@nexenta.com.

❖ *To register NexentaConnect for VMware Virtual SAN:*

1. Log in to the VMware vSphere Web Client.
2. Click **NexentaConnect Settings > Register NexentaConnect**.
3. Select a NexentaConnect cluster by clicking on the link in the **Status** column.
4. Type the license key.
5. Click **Register**.

Using NexentaConnect for VMware Virtual SAN

After you complete the registration, navigate to the Home page to start using the features of NexentaConnect for VMware Virtual SAN. Refer to NexentaConnect for VMware Virtual SAN User Guide.

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