Wyse Datacenter Appliance XC for VMware View

Deployment Guide

Dell Wyse Solutions Engineering
November 2014

A Dell Deployment and Configuration Guide

Revisions

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2014–11

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Contents

1 Overview

1.1 Purpose of this document

This document describes:

- Configuration of Nutanix Storage Pool and Containers.
- The tasks to be completed to install VMware vCenter Appliance, VMware View 6.0, and View Composer 6.0.
- Guidance for creating the required SQL Databases.
- The tasks to be performed to install the Server 2012 RDSH Roles and add RDSH Session Hosts to a Farm.
- Configure each of the core components.

1.2 Scope

The objectives of this document are:

- Provide the specific configuration required for a XC720xd View VDI Solution
- Provide the Application and network security recommendations.
- Provide installation guidance for a VMware View Solution leveraging the VMware vCenter Appliance
- Provide guidance on the setup of VMware View RDS Farms.

2 Configuring Nutanix Storage Pool and Containers

To use the cluster storage, you must configure a storage pool and containers within the pool. Create only one pool consisting of all the disks in the cluster. Within the storage pool, we recommend creating multiple containers for a logical distinction between the compute and management storage layers.

1. To configure the storage pool and containers, log in to the Nutanix Web Console. From the **Home** drop-down menu, select **Storage**.

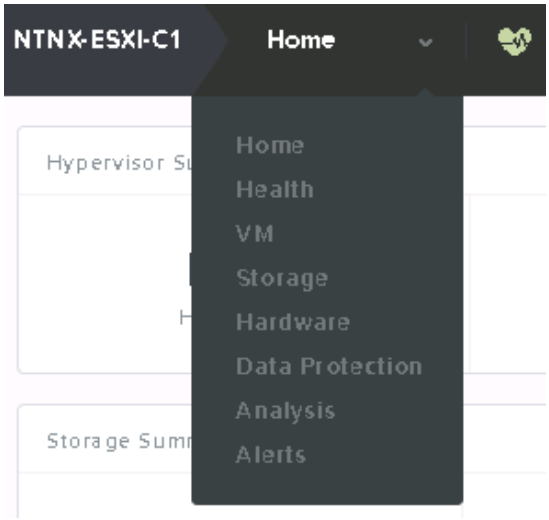

Figure 1 Nutanix Web Console

2. Click the **Create Container** link and click the plus symbol (+) under the **STORAGE POOL** section to create a pool.

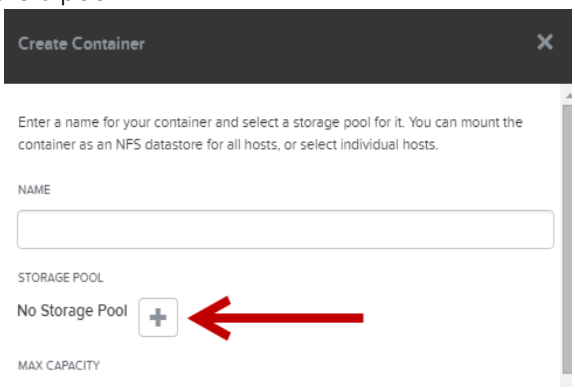

Figure 2 Create Container Wizard

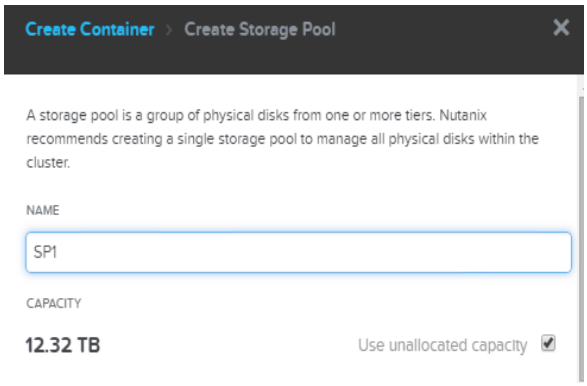

Figure 3 Creating Storage Pool

3. Type a name for the pool (for example, SP1) and use all unallocated disk space. Click **Save**. On the **Create Container** page, to view additional settings, click the **Advanced Settings** button. The recommended settings are as follows:
    - Replication Factor: 2
    - Reserved Capacity: 4096 GB (only for the "Compute" container that contains the persistent virtual desktops)
    - Compression: Disabled
    - Delay: 0 minutes
    - Perf Tier Deduplication: On
    - Capacity Tier Deduplication: On (Post-Process)

4. Type a name for the management container. For example, "`ds_mgmt`, and click **Save**. Click **+ Container** to add another container for the compute or RDSH layer. Use the same advanced settings, type a name (for example, ds_compute or ds_rdsh) and click **Save**. If you are using desktops and RDSH on the same cluster, create an additional container for logical separation.

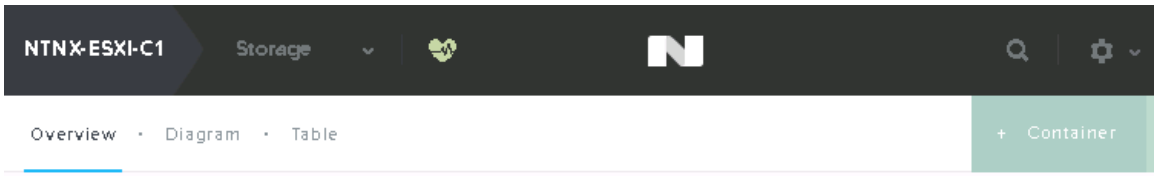

Figure 4 Overview

Hyper-V Hypervisor and SMB Shares

SMB shares are used to store the virtual machine disks and settings files. The cluster name is the "host" portion of the SMB share name. If not created during the Nutanix cluster setup, add a DNS entry for this name and point it to the cluster IP address. The container names that you created earlier are used as the share names. The resulting share name will be `\\{cluster-name}\{container-name}`. For example: `\\cluster\ds_mgmt`.

By default, only the cluster hosts have access to the SMB shares. To change this, you must modify the whitelist on the cluster. At a minimum, the IP address of the System Center VMM host must be added. If you want all management hosts to be able to access, you can specify the network segment as opposed to single IP addresses.

NOTE: The shares must be used only for storing VDI-related components.

To modify the Whitelist, go to the Nutanix Web Console, click the configuration wheel symbol in the upper-right corner, and then click **Filesystem Whitelists**.

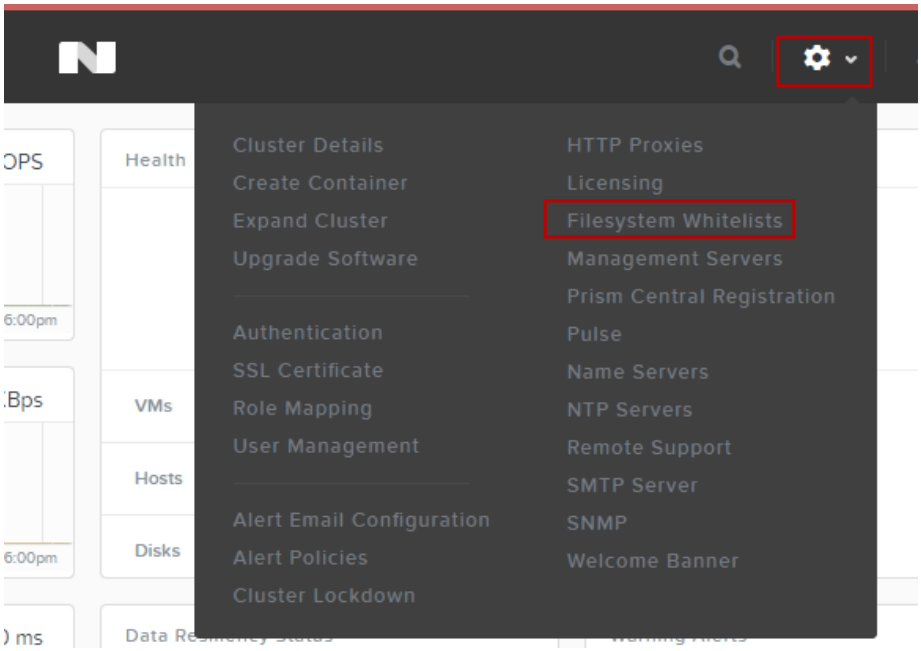

Figure 5 Filesystem Whitelists

Type the desired host IP address or network segment and click **Add**.

3 Installing vCenter Server Appliance

The deployment of desktop pools within VMware View requires that an install of the following VMware components is completed successfully: VMware vCenter Server Appliance, VMware View, and VMware View Composer and an associated SQL server VM. The VMware vCenter VM will be created using the VMware vCenter Server Appliance. The VMware vCenter Server Appliance is a preconfigured Linux-based virtual machine that is optimized for running vCenter Server and associated services. Visit the VMware website for information on downloading version 5.5.0 and licensing.

3.1 Appliance Installation

1. Connect to one of the Nutanix configured ESXi hosts using the VMware vSphere client.
2. In the VMware vSphere client select File and Deploy OVF Template.

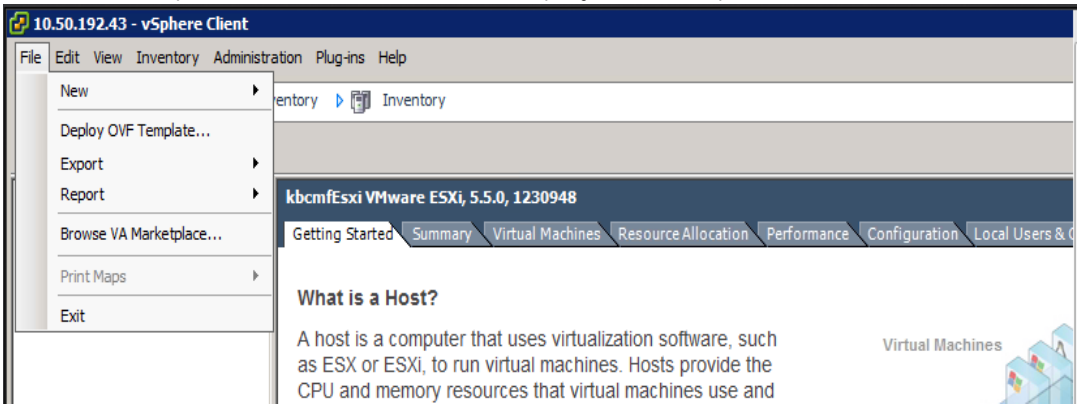

Figure 6 Deploy OVF Template

3. In the OVF deployment wizard, click **Browse** and select the vCenter Appliance OVF template file and click **Next**.

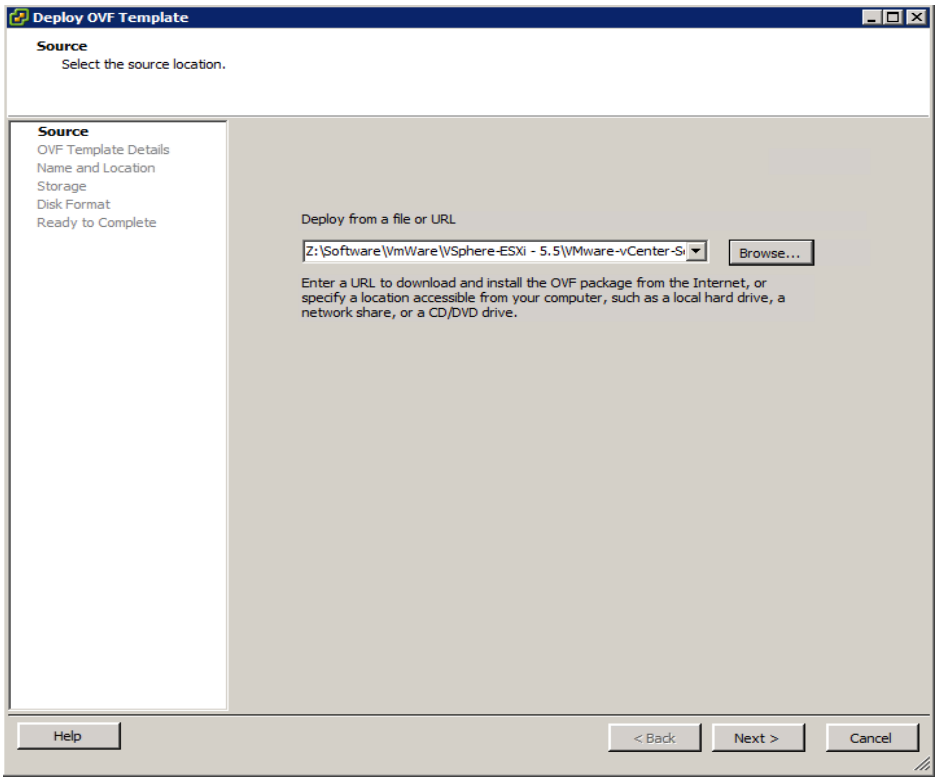

Figure 7 Select OVF Template file.

4. Confirm the template details and click **Next**.

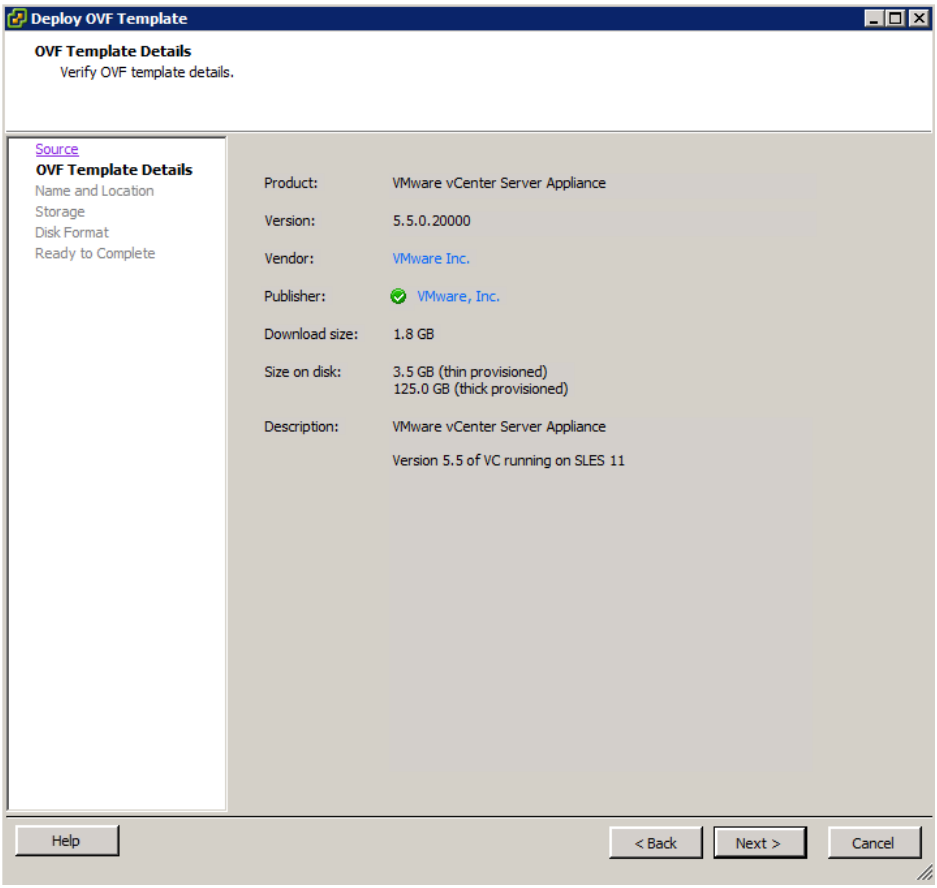

Figure 8 OVF Template Details

5. Specify a name for the vCenter Server Appliance VM and click **Next**.

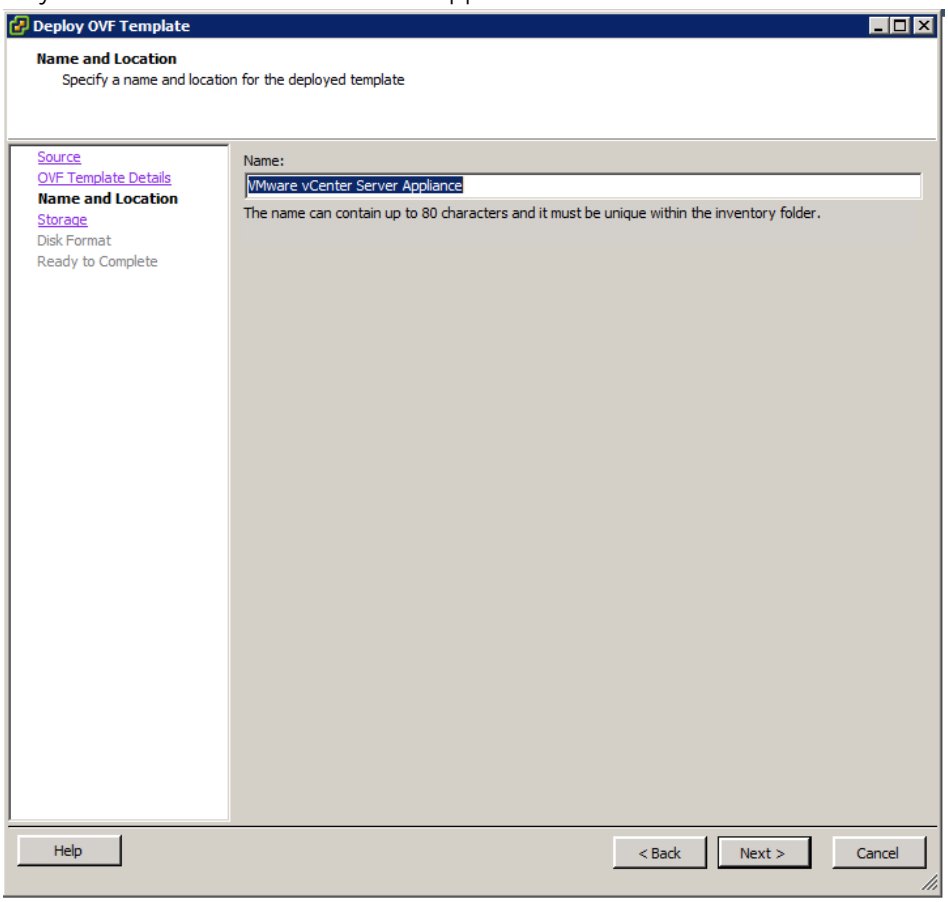

Figure 9 vCenter Appliance Name

6. Select a storage location and click **Next**.

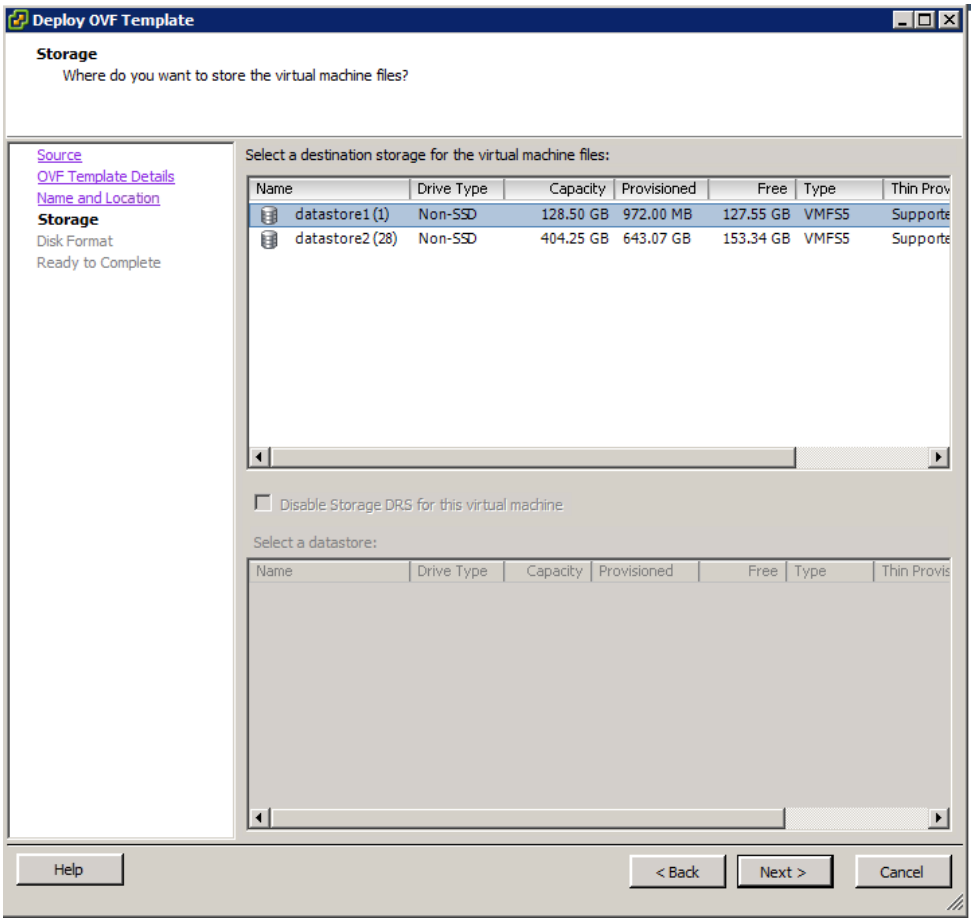

Figure 10 Select Storage

7. Select the required disk format and click **Next**.

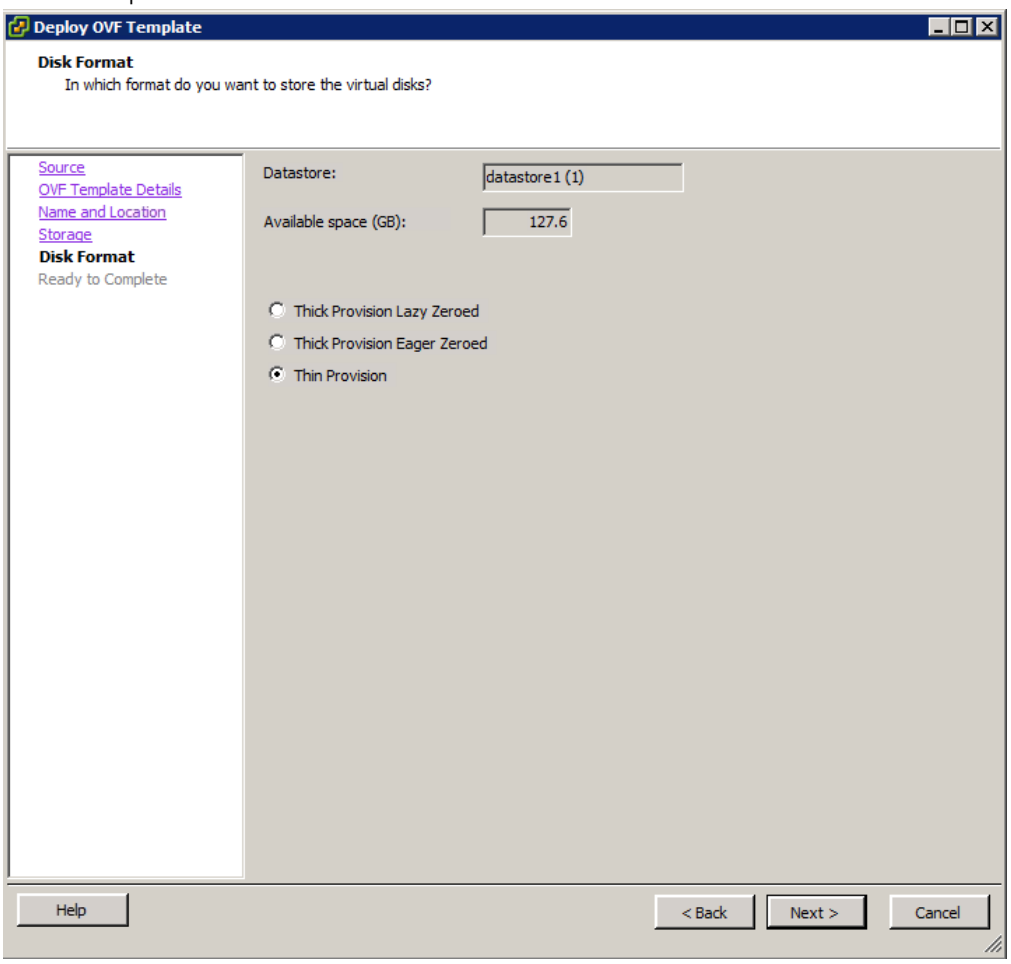

Figure 11 Disk Format

8. Review the settings and click **Finish** to deploy.

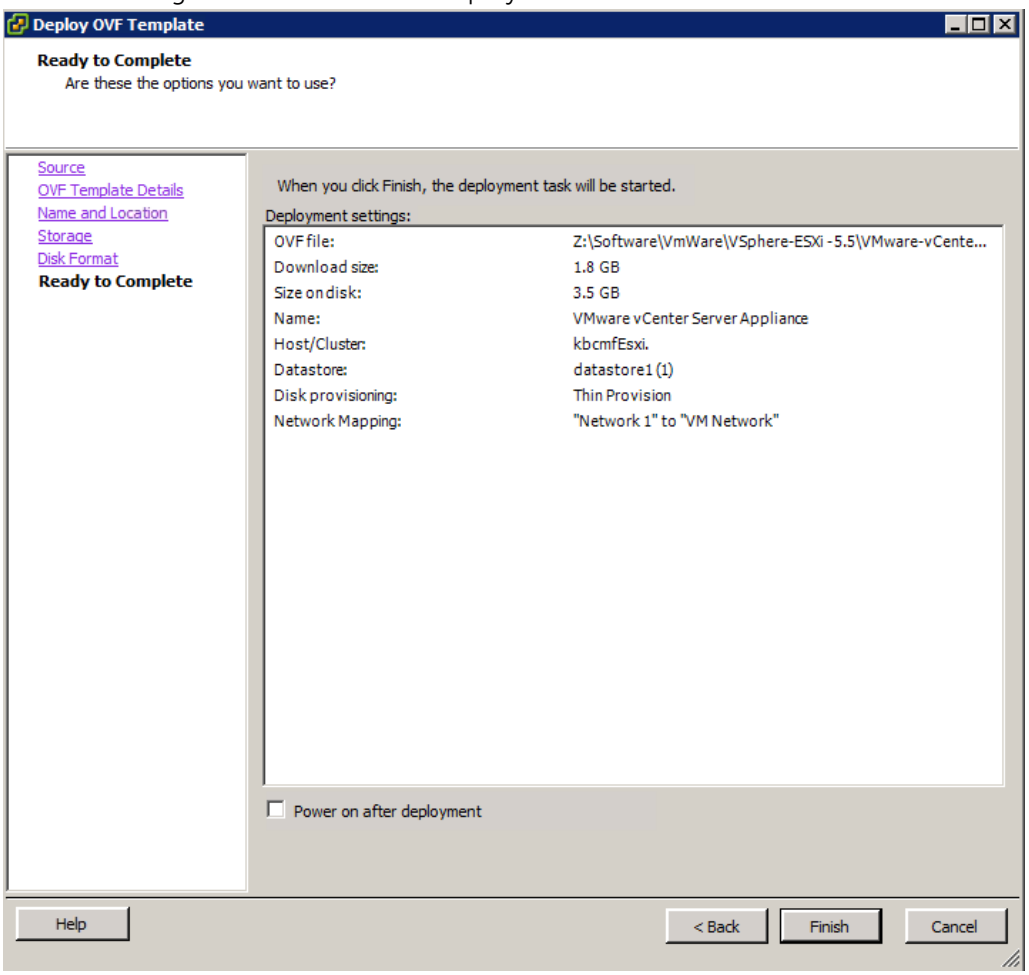

Figure 12 Finish OVF Deployment Wizard

The vCenter Appliance deployment process will now start.

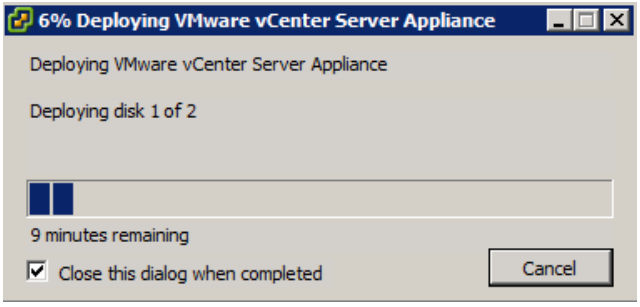

Figure 13 vCenter Appliance Deployment Progress

After deployment, the vCenter Appliance VM will appear listed under the ESXi host in the vSphere Client window.

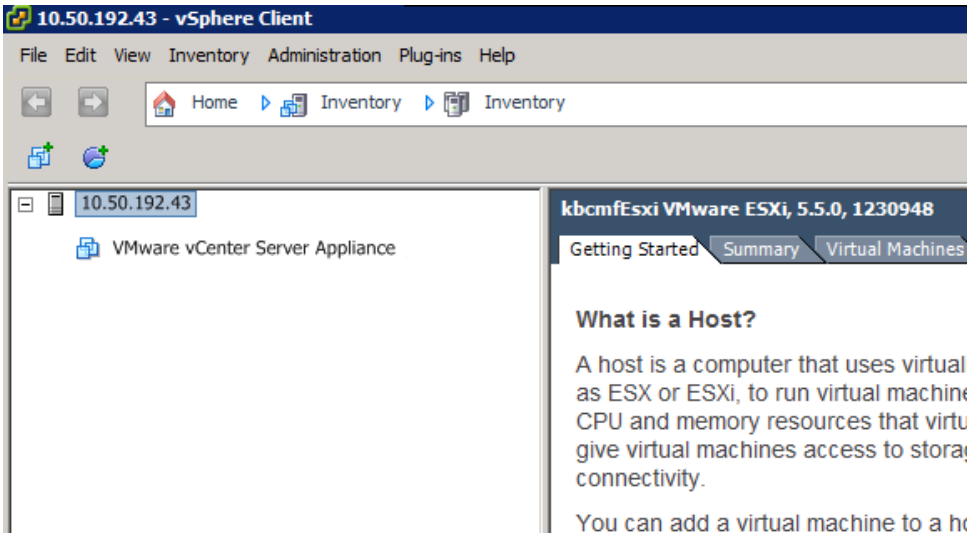

Figure 14 vCenter Appliance

9. Turn on the vCenter Appliance VM and open the **Console** tab to view the on-screen Quick Start Guide.

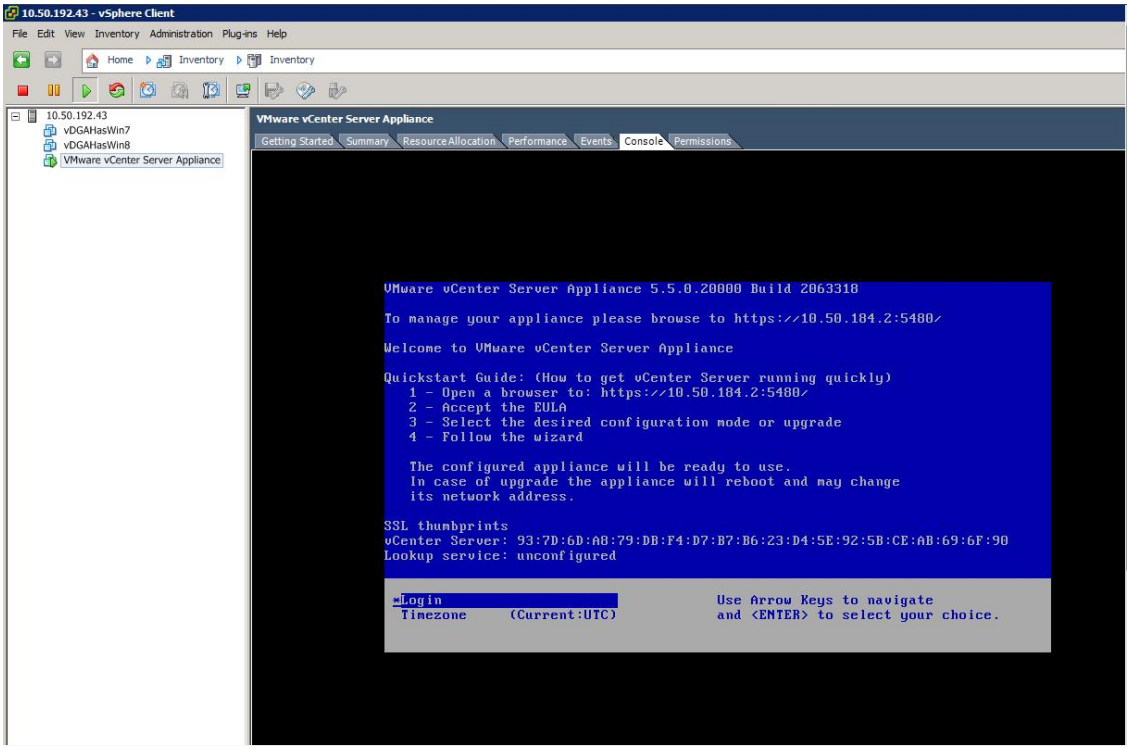

Figure 15 vCenter Appliance VM Powered On

10. Open a web browser window to the URL indicated in the Quick Start Guide and type the user name `root` and password `vmware`, and then click **Login**.

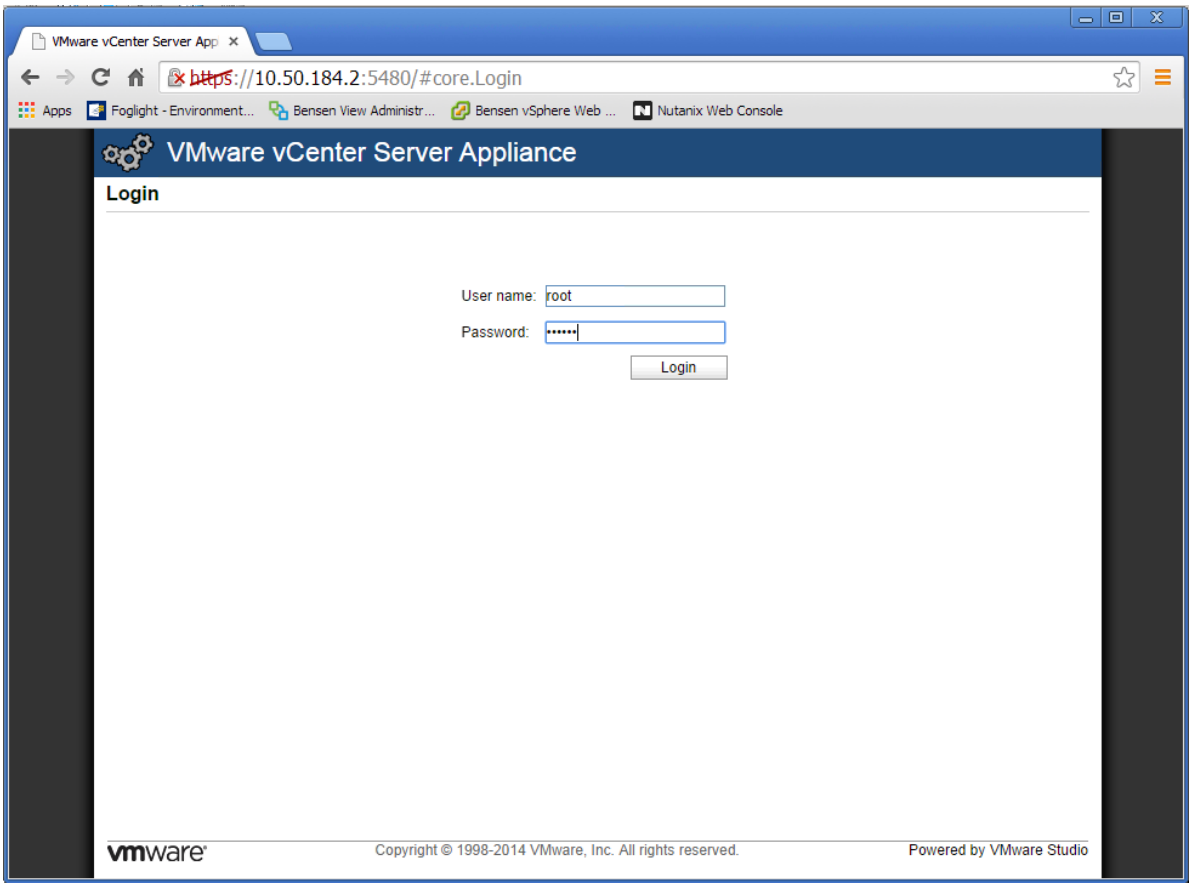

Figure 16 vCenter Appliance login screen

11. Accept the EULA and click **Next**.

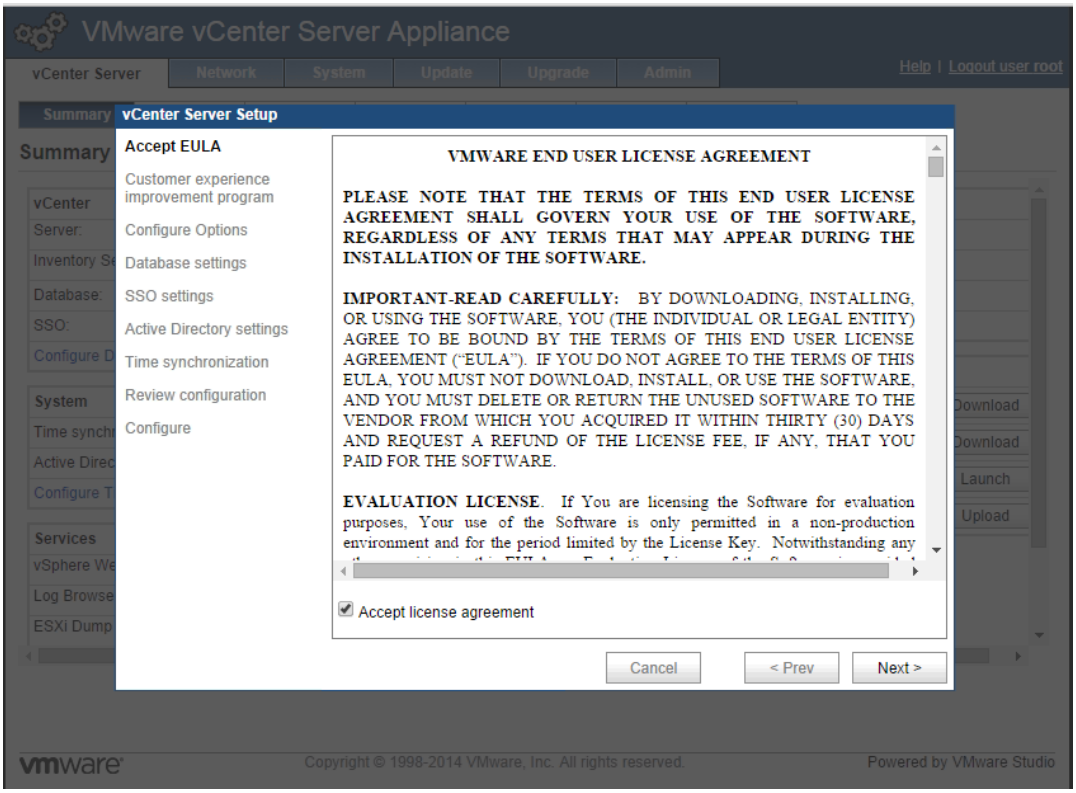

Figure 17 vCenter EULA

12. Click **Next** on the **Customer Experience Improvement Program** screen.

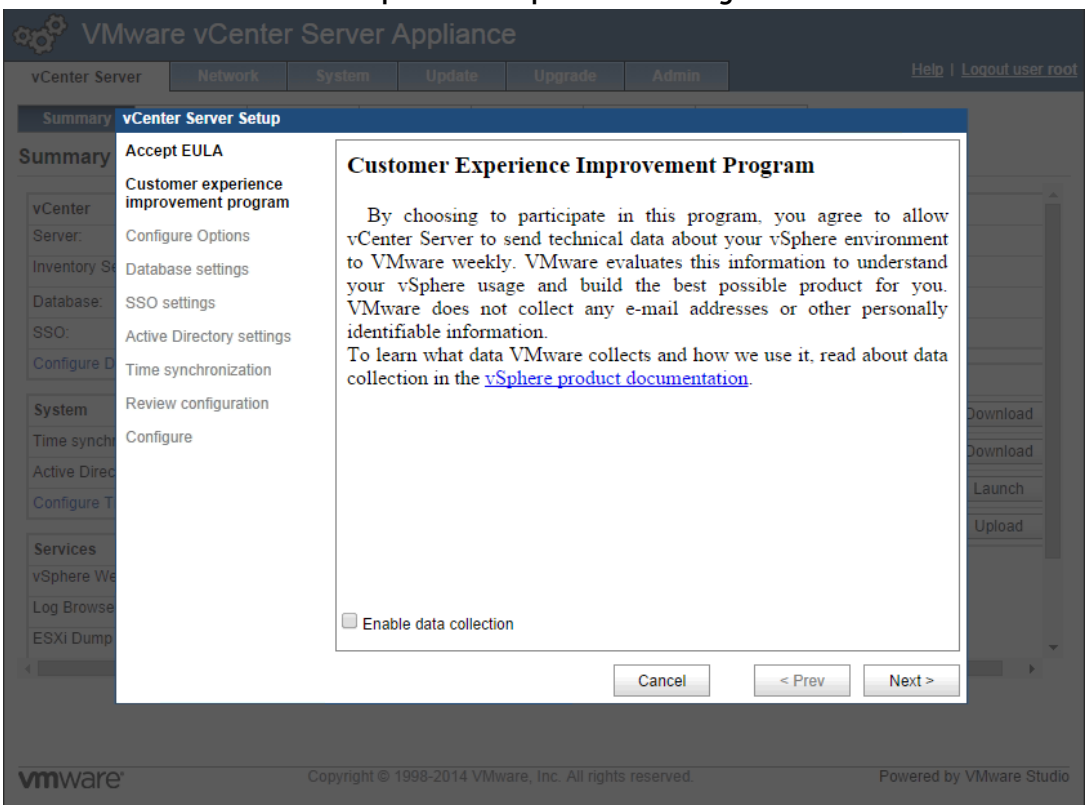

Figure 18 Customer Experience Program

13. If using a static IP address you must close the wizard and set a hostname. In this guide a static IP Address will be used. Click **Cancel** to close the wizard.

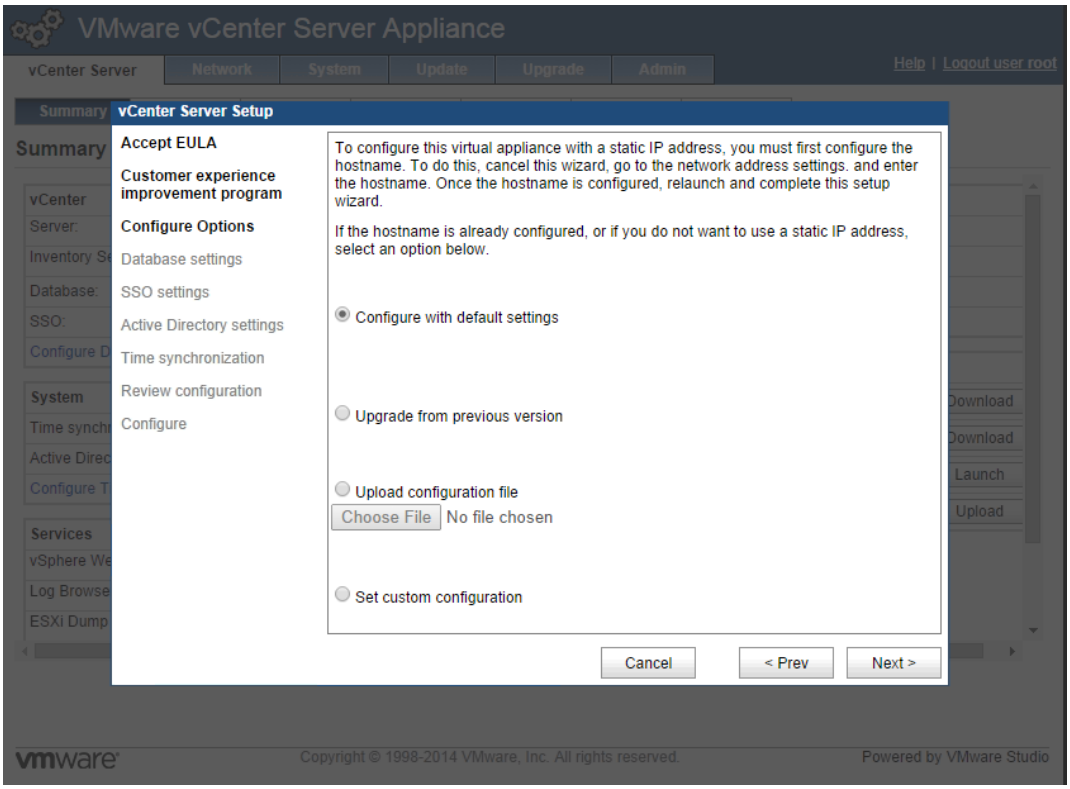

Figure 19 Cancel Wizard

14. Click the **Network** tab, and then select **Static** as the address type from the **IPv4 Address Type** drop-down menu.

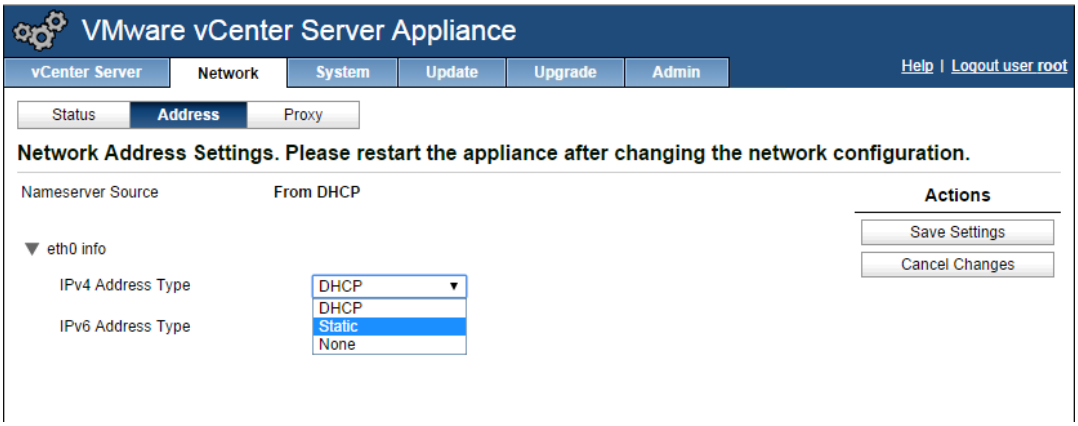

Figure 20 Static IP Address

15. Set the Hostname and IPv4 address settings. Click **Save Settings**.

Note: The fully qualified domain name (FQDN) format must be used for the host name.

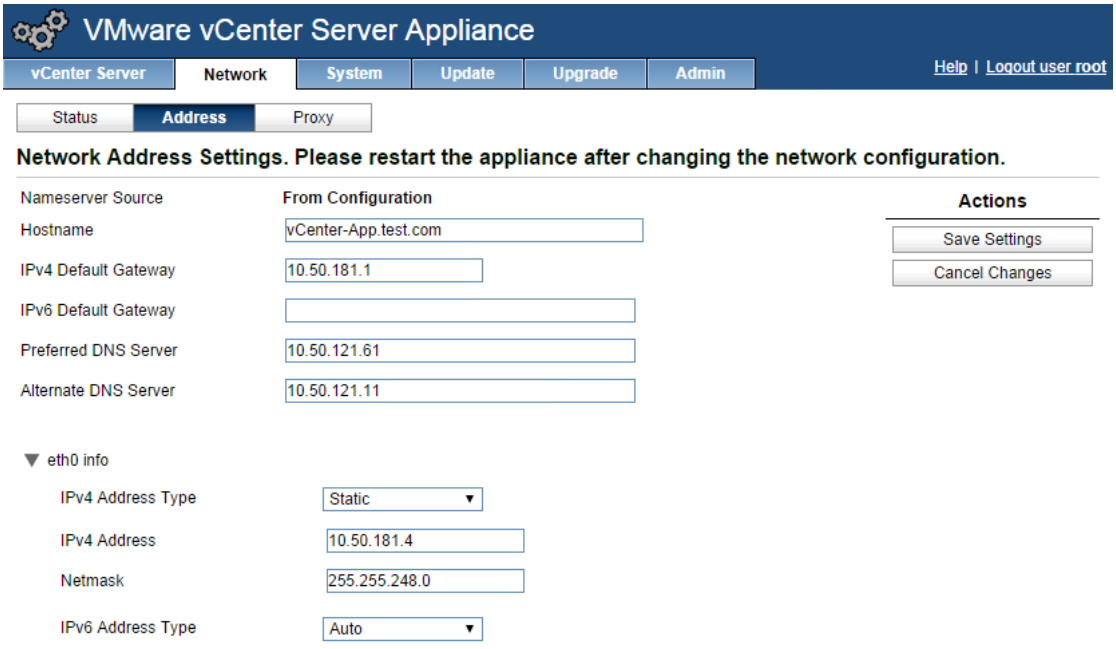

Figure 21 Set IPv4 Settings

16. When the network settings have saved, change the URL on the web browser to the static IP address you just set and log in again by using the login ID 'root' and password 'vmware', and then click the **Network** tab to verify your IPv4 settings.

Note: You may briefly lose connectivity.

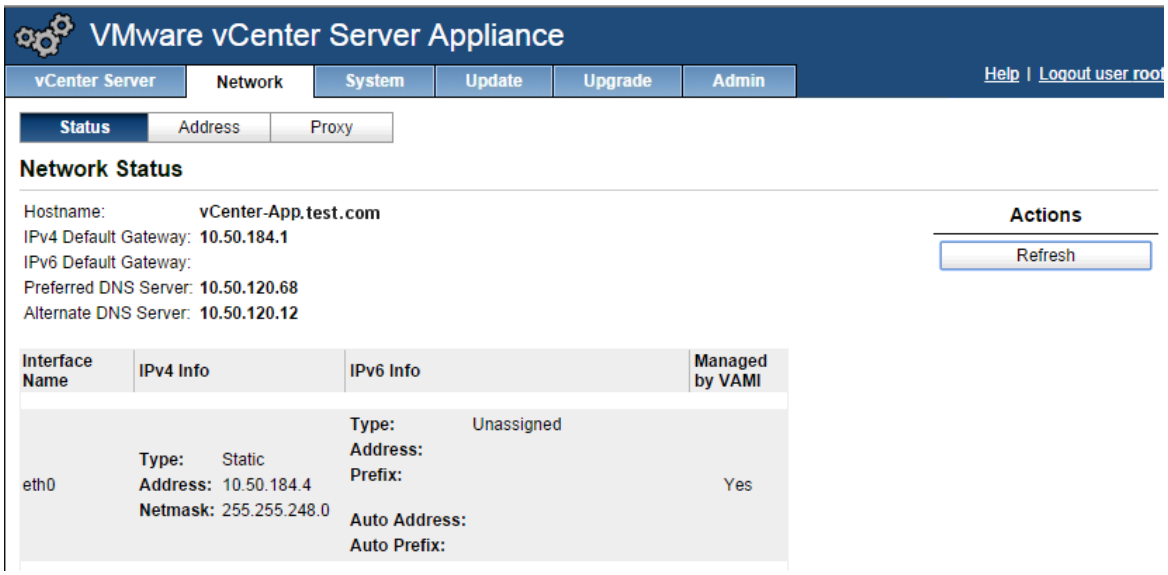

Figure 22 IPv4 Settings

17. Click the **vCenter Server** tab, and under the **Utilities** section, click the **Setup wizard Launch** button to re-open the Setup Wizard.

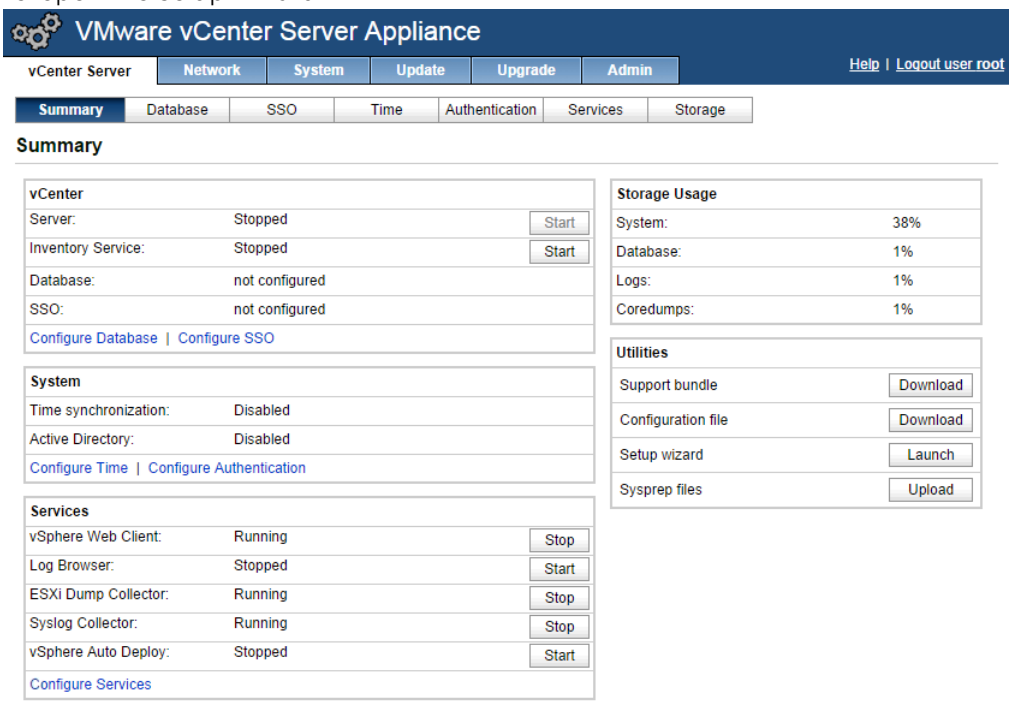

Figure 23 Setup wizard re-launch

18. On the **Customer Experience Improvement Program** window, click **Next**.

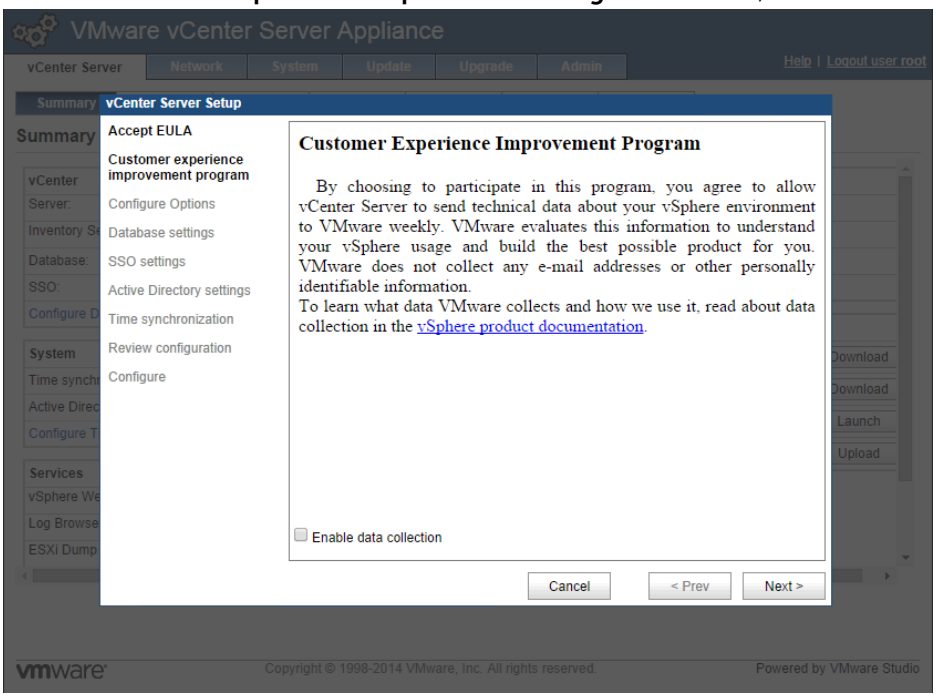

Figure 24 Customer Experience Improvement Program

19. Click **Set custom configuration** and click **Next**.

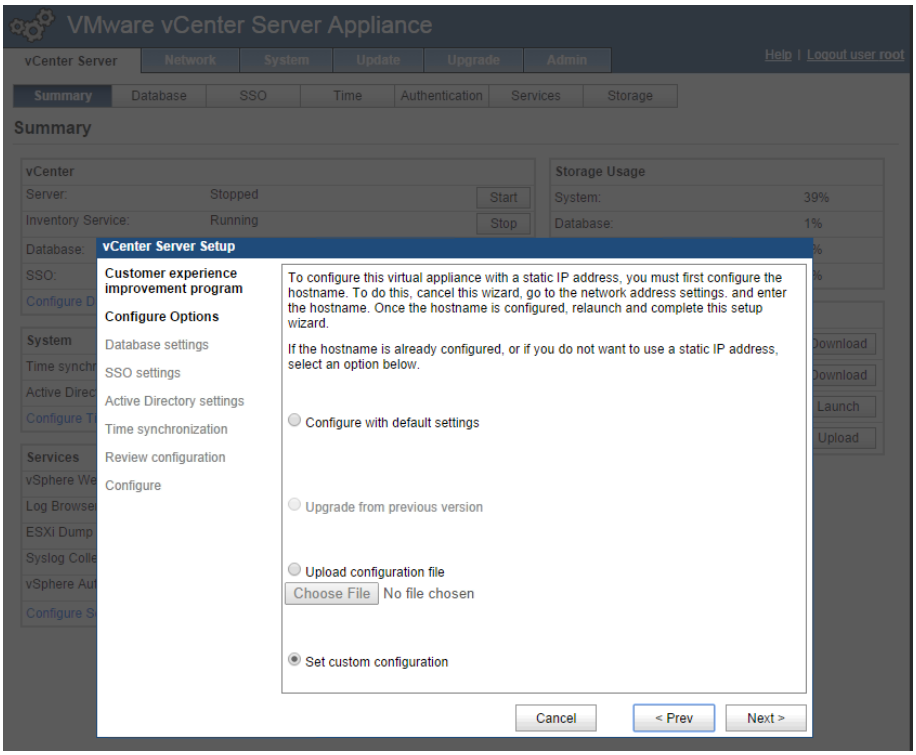

Figure 25 Set Custom Configuration

20. Accept the default database settings and click **Next**.

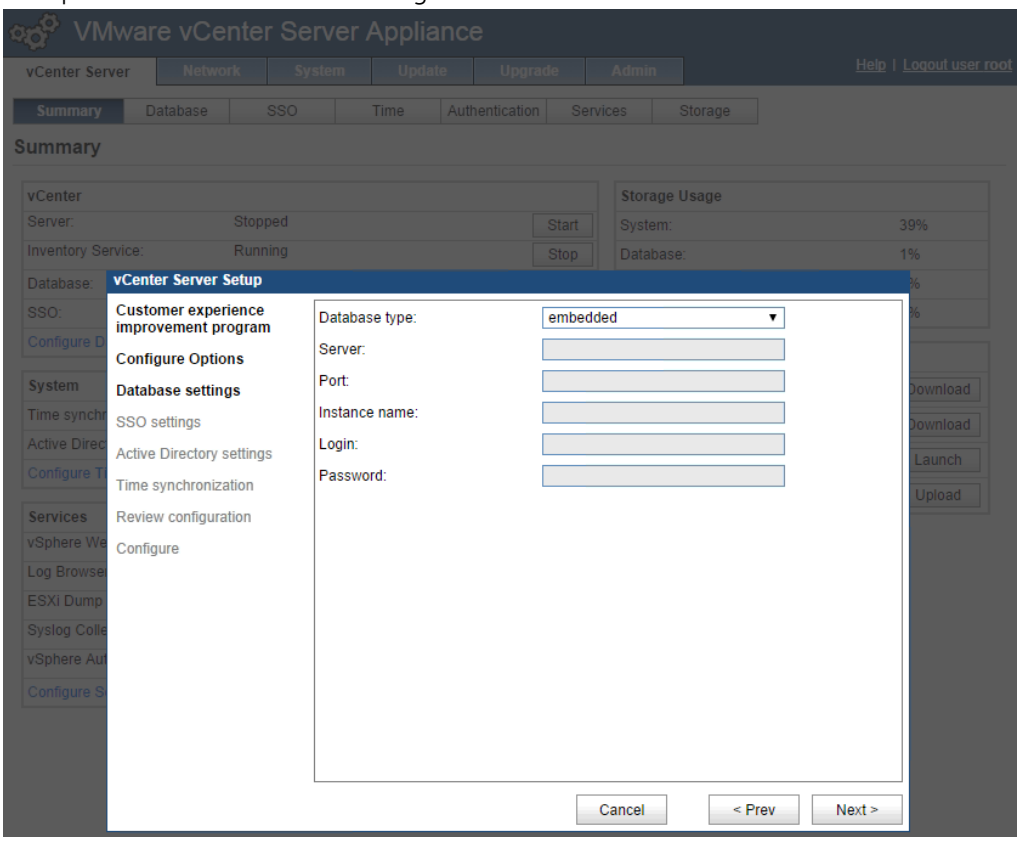

Figure 26 Database Settings

21. From the **SSO deployment type** drop-down menu, select the embedded SSO deployment type and type a password for the administrator@vsphere.local user and click **Next**.

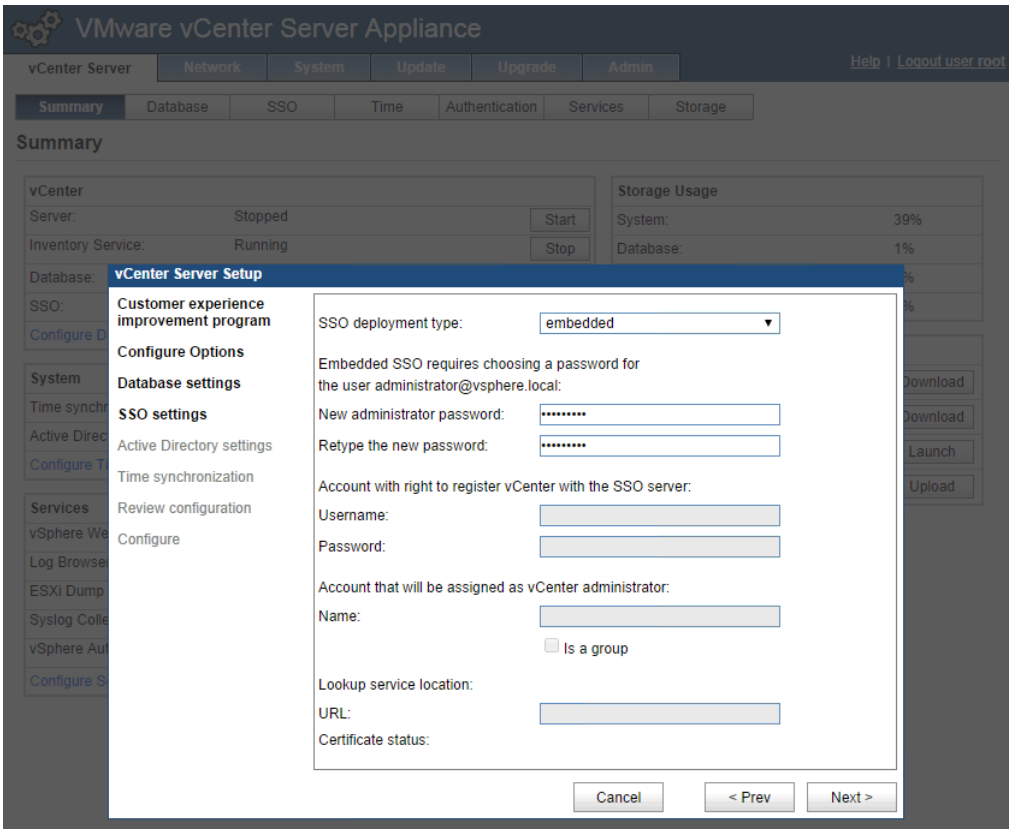

Figure 27 Single Sign On

22. To configure Active Directory authentication select the **Active Directory Enabled** check box and type the domain name to authenticate to, along with an administrative user login and password for that domain. Click **Next**.

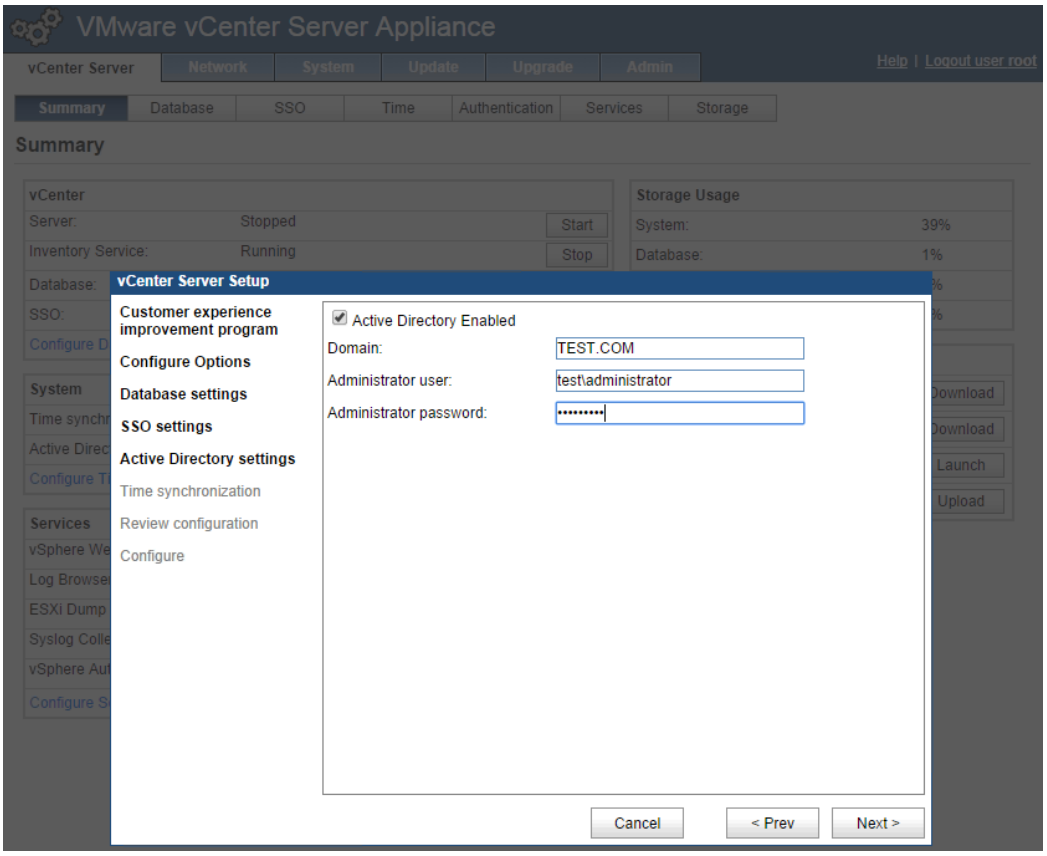

Figure 28 Active Directory

23. Review the configuration settings and click **Start**.

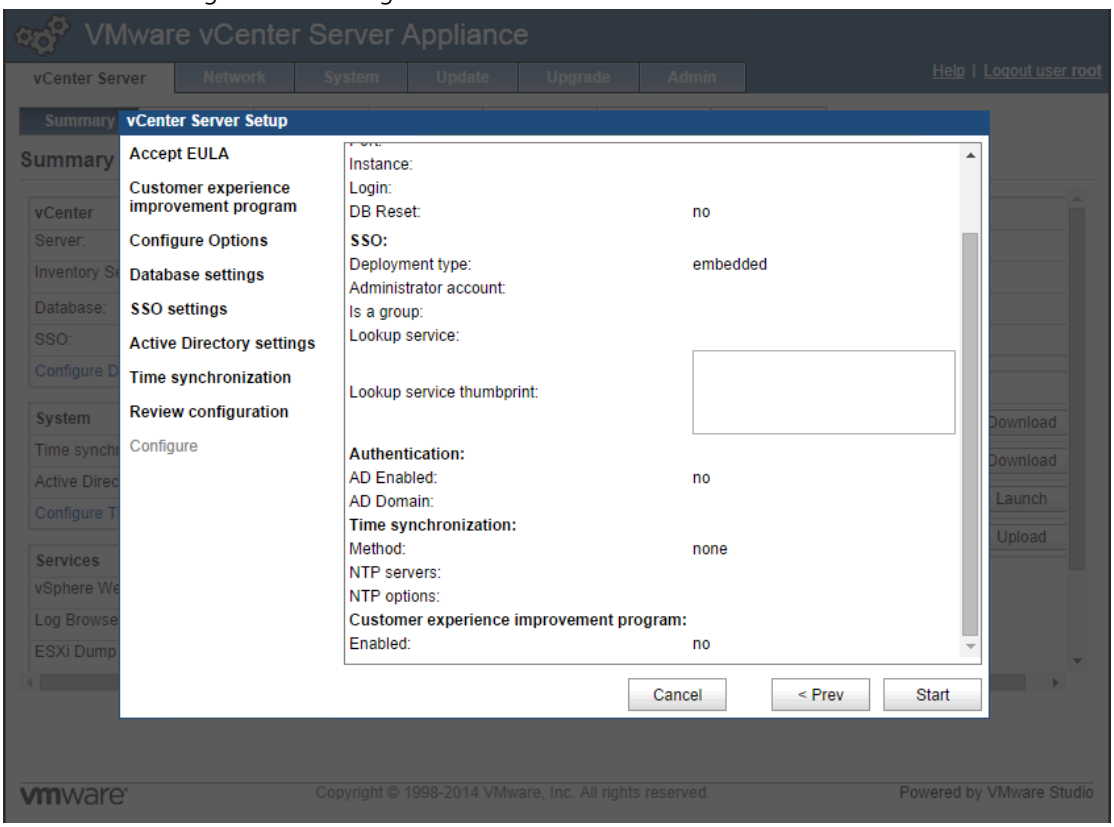

Figure 29 Complete Startup Wizard

24. When the configuration processes are completed, click **Close**.

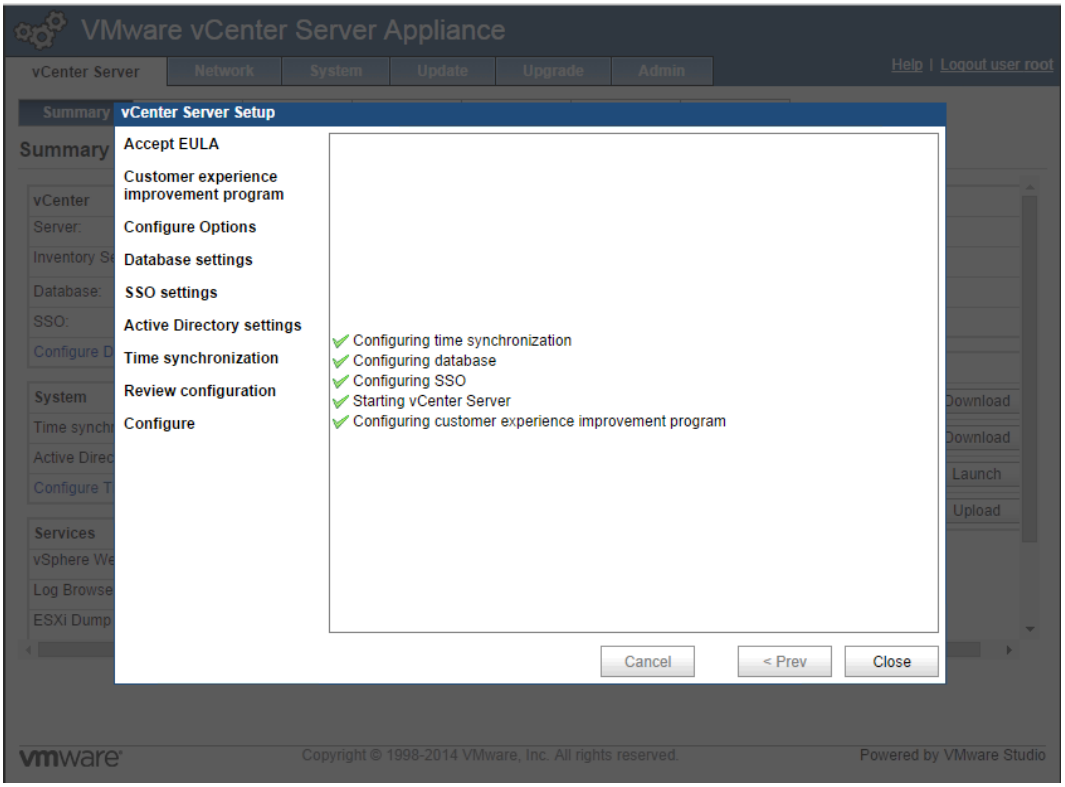

Figure 30 vCenter Setup Complete

3.2 Adding Hosts to vCenter

1. To add the Nutanix configured ESXi hosts to be managed by vCenter, open the vSphere Client and attach to the vCenter Server Appliance, click **Create a datacenter** to add a datacenter, and then name the datacenter.

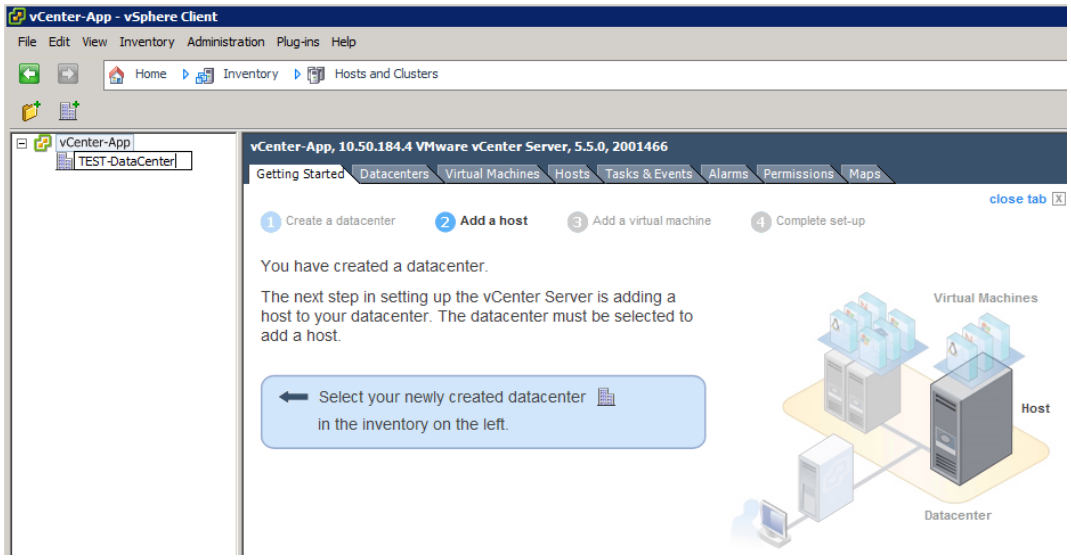

Figure 31 New Datacenter

2. Right-click the datacenter and select **New Cluster**.

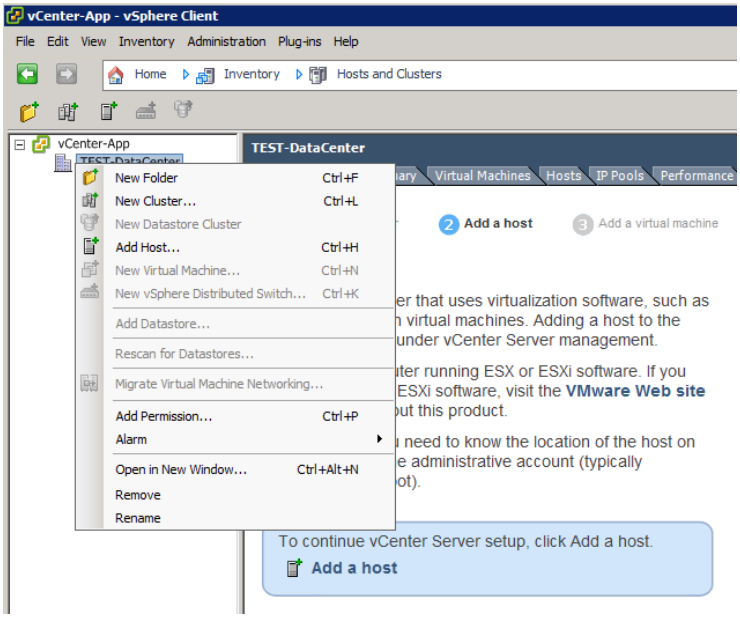

Figure 32 New Cluster

3. In the **Name** box, type a cluster name. vSphere HA or DRS may be enabled at this point, if required. Click **Next**.

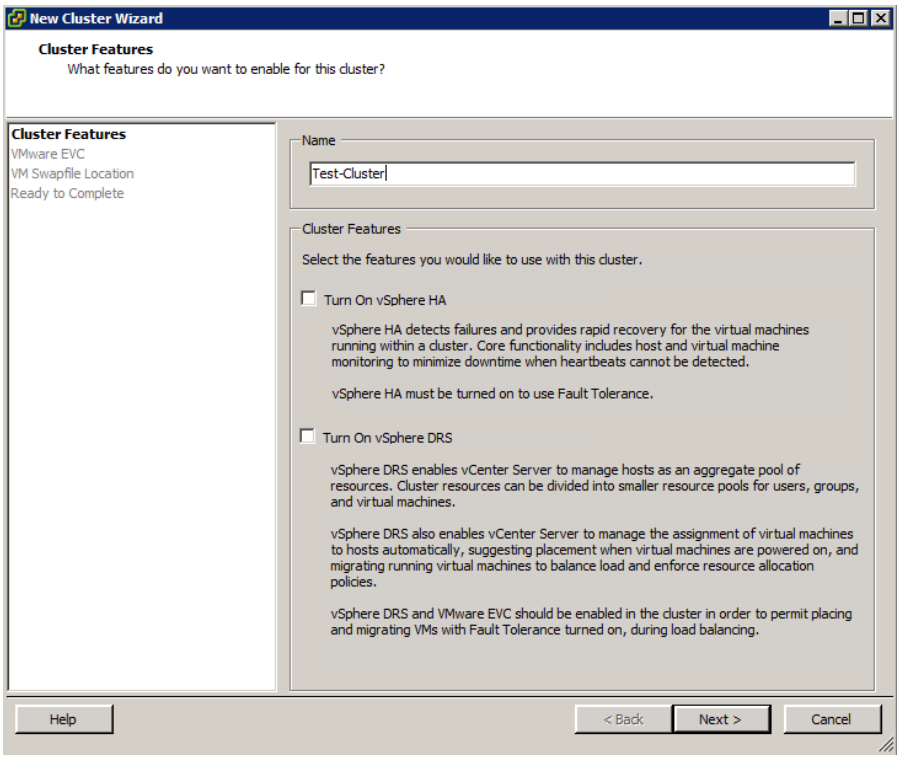

Figure 33 New Cluster Wizard

4. Configure Enhanced vMotion, if required, and then click **Next**.

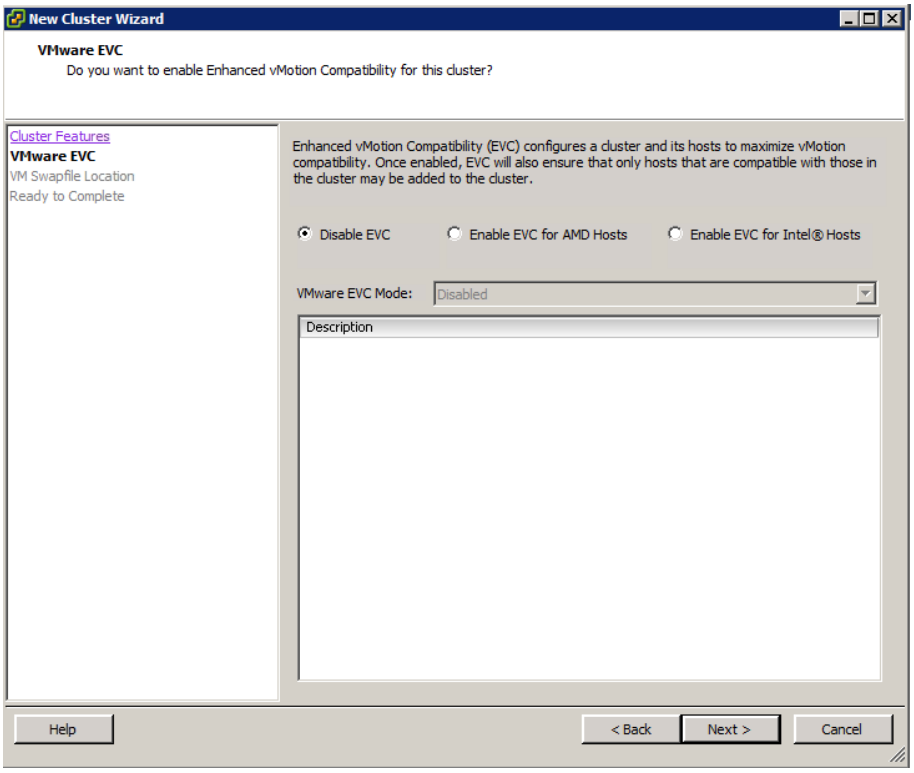

Figure 34 Enhanced vMotion

5. Set the VM Swapfile policy, if required, and click **Next**.

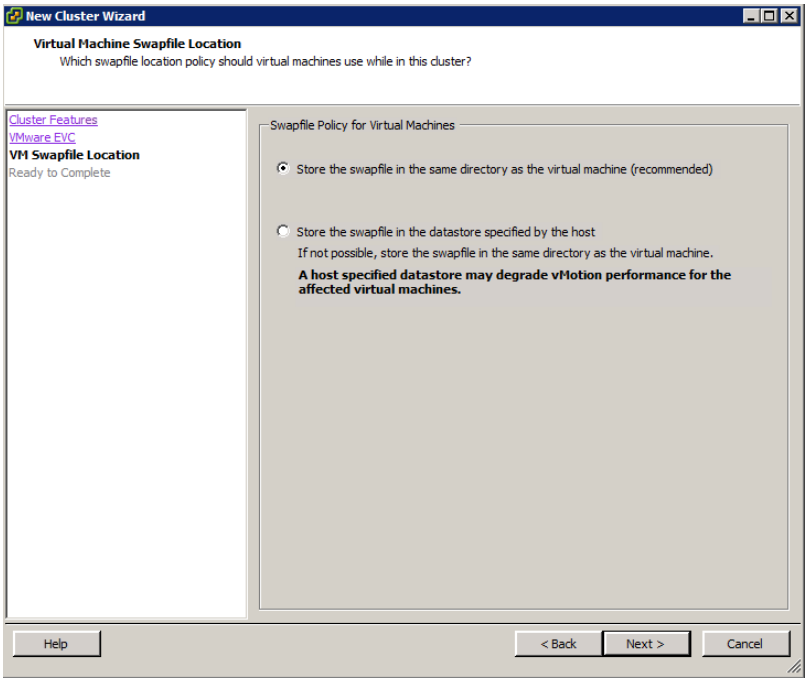

Figure 35 Swapfile Policy

6. Review and click **Finish** to complete the cluster setup.

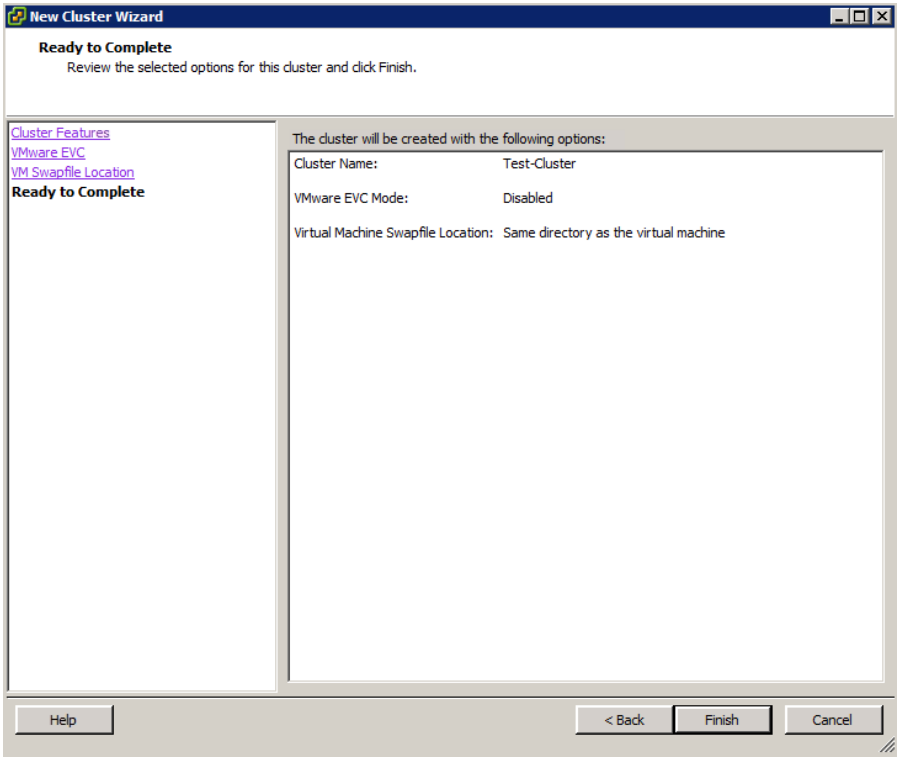

Figure 36 Complete Cluster Setup

7. Click the newly created cluster and click **Add a host**, enter the ESXi host FQDN or IP address, ESXi host user name, and password in the wizard, and then click **Next**.

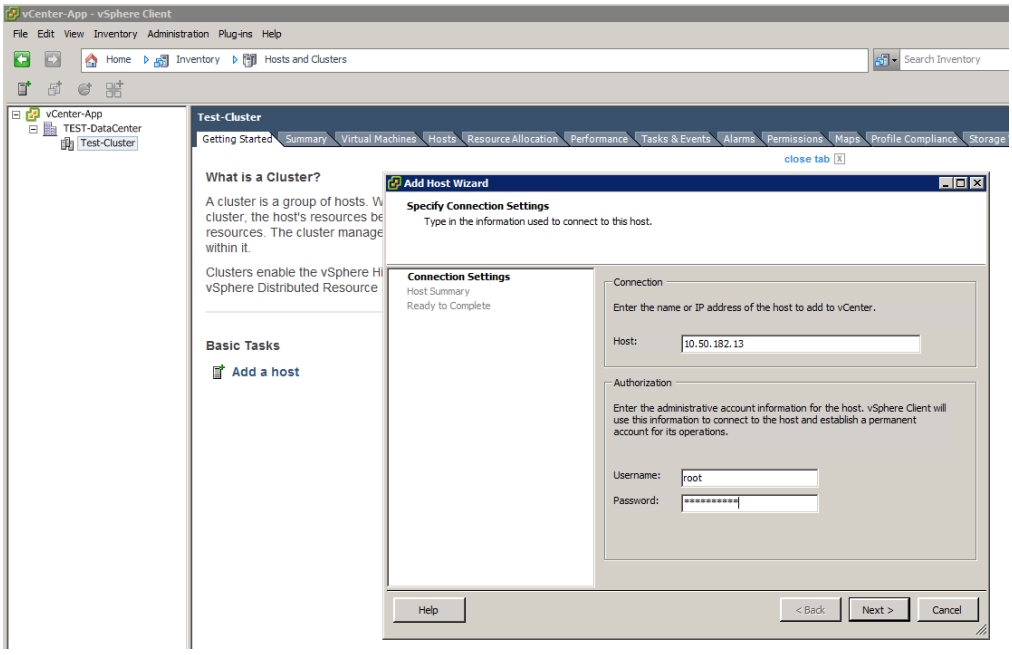

Figure 37 Add A Host

8. Review the host summary and click **Next**.

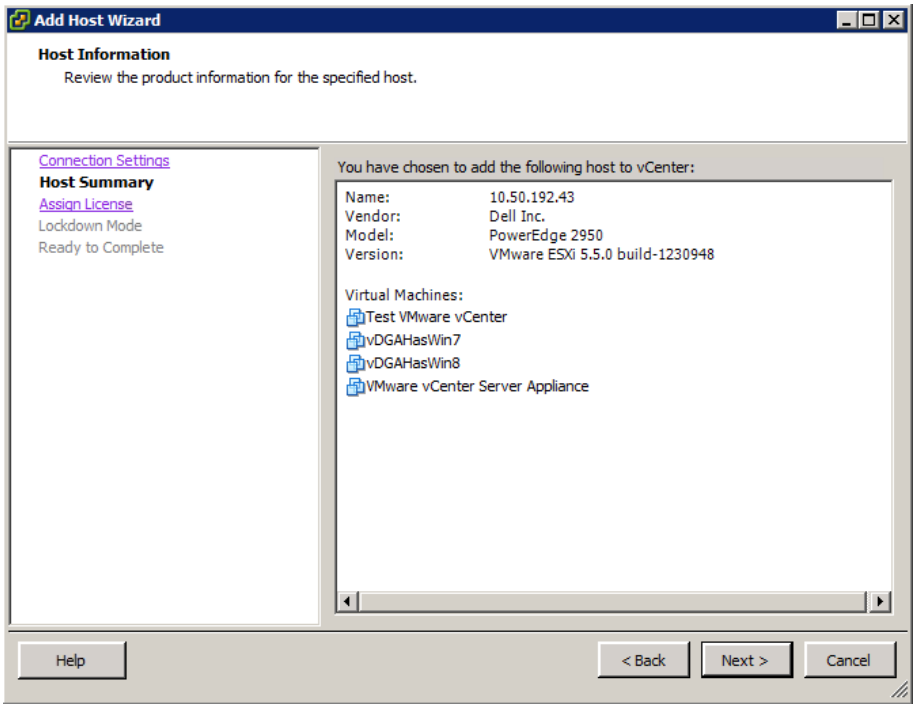

Figure 38 Host Summary

9. Assign a license key, if required, and then click **Next**.

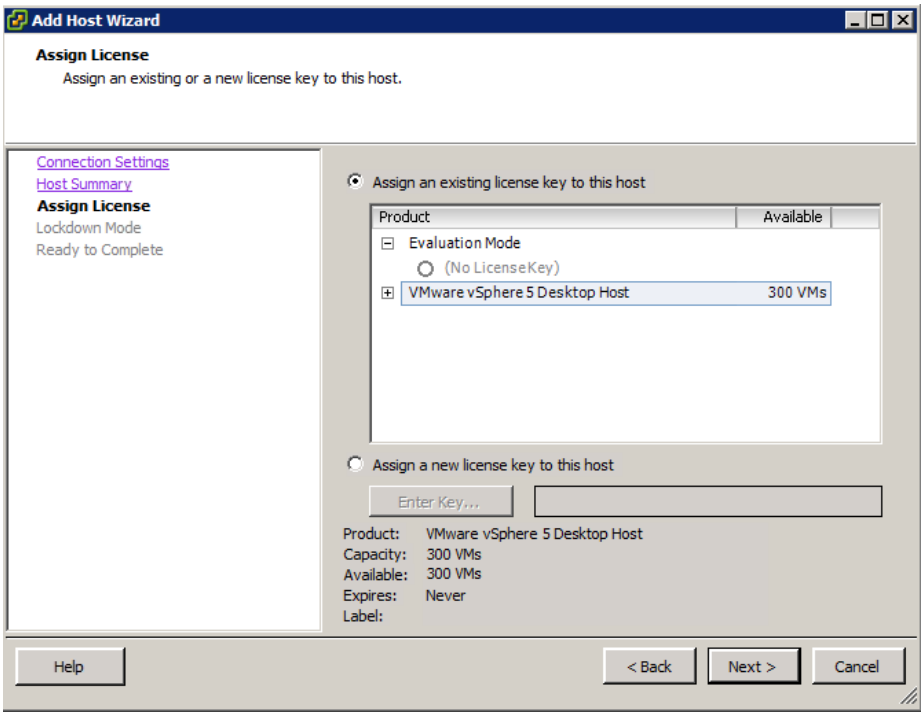

Figure 39 License Key

10. Set the Lockdown mode, if required, and click **Next**.

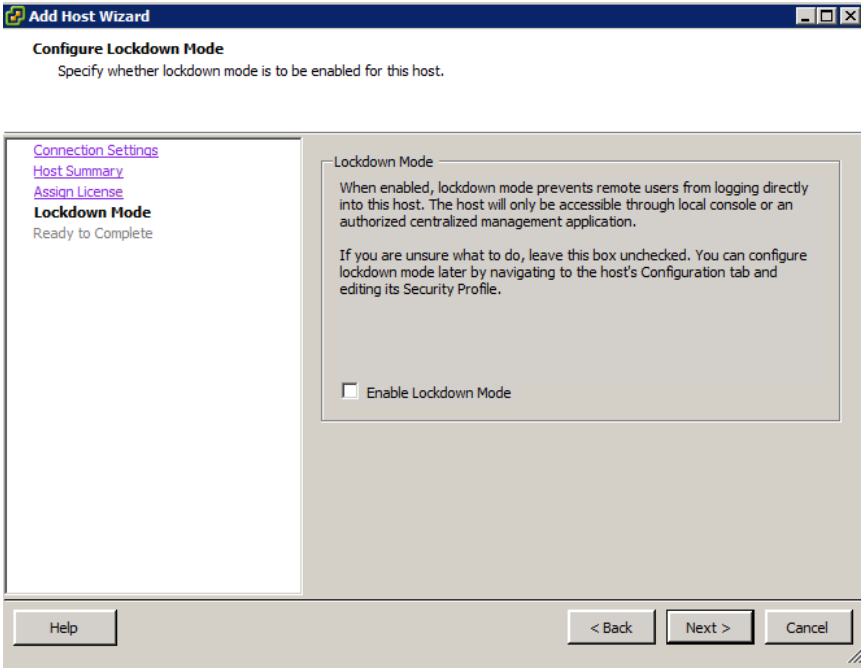

Figure 40 Lockdown Mode

11. Click **Finish** to add the ESXi host to the cluster. Repeat the process of adding the host for all Nutanix configured ESXi hosts.

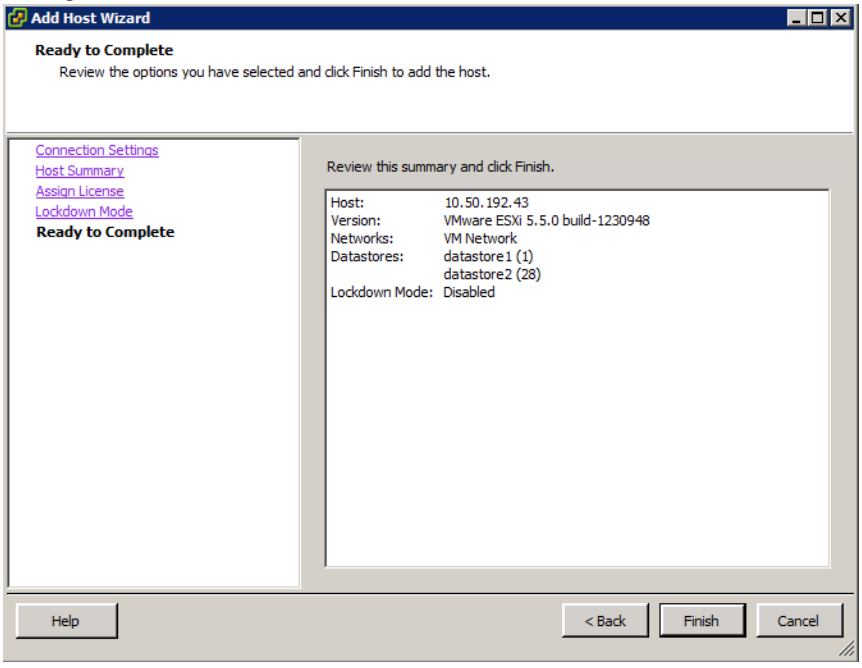

Figure 41 Finish Add Host Wizard

3.3 Setting up vCenter Networking

1. To add networking in vCenter, click one of the host servers, select the **Configuration** tab, click **Networking,** and then click **Add Networking**. The vSphere Standard Switch view should be selected.

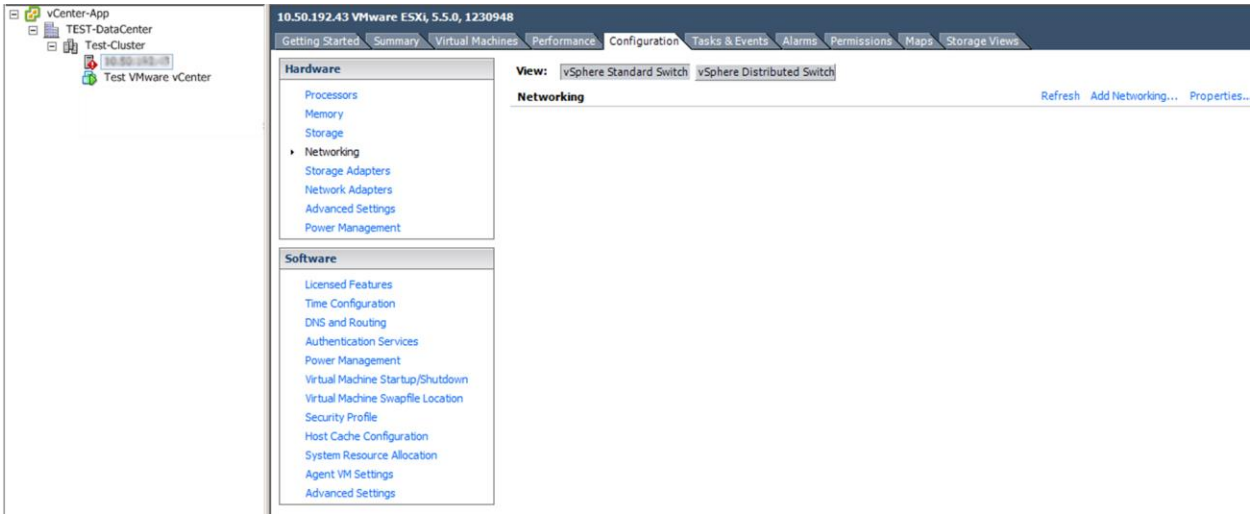

Figure 42 vCenter Network Configuration

2. Select Virtual Machine connection type to create a Virtual Machine Port Group.

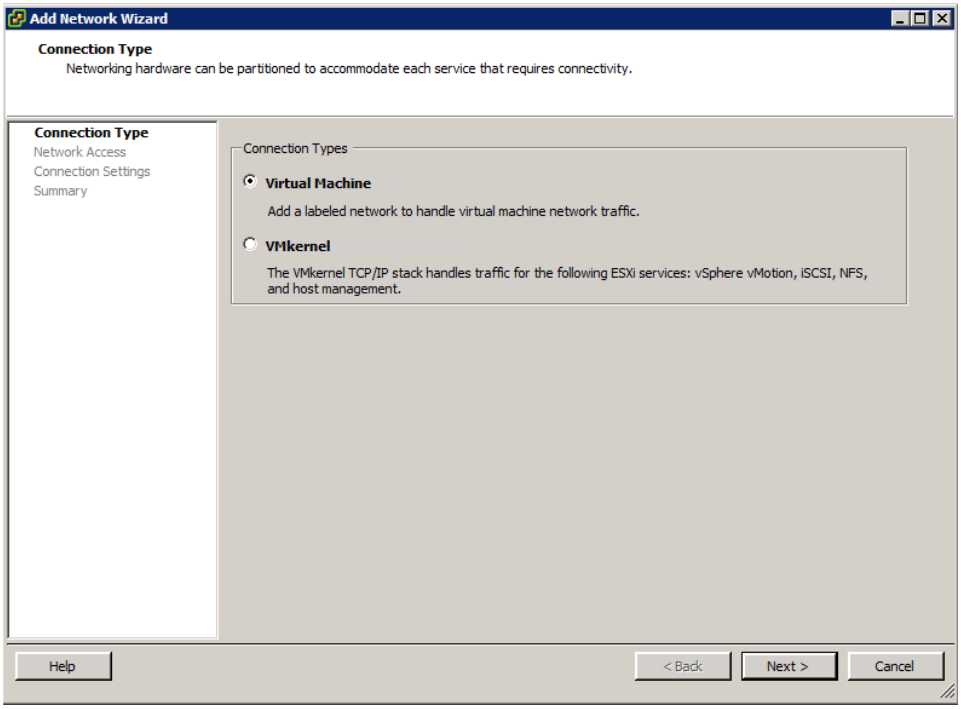

Figure 43 Select Virtual Machine Connection Type

3. Create a Standard vSwitch, select the two 10Gb NICs, and then click **Next**.

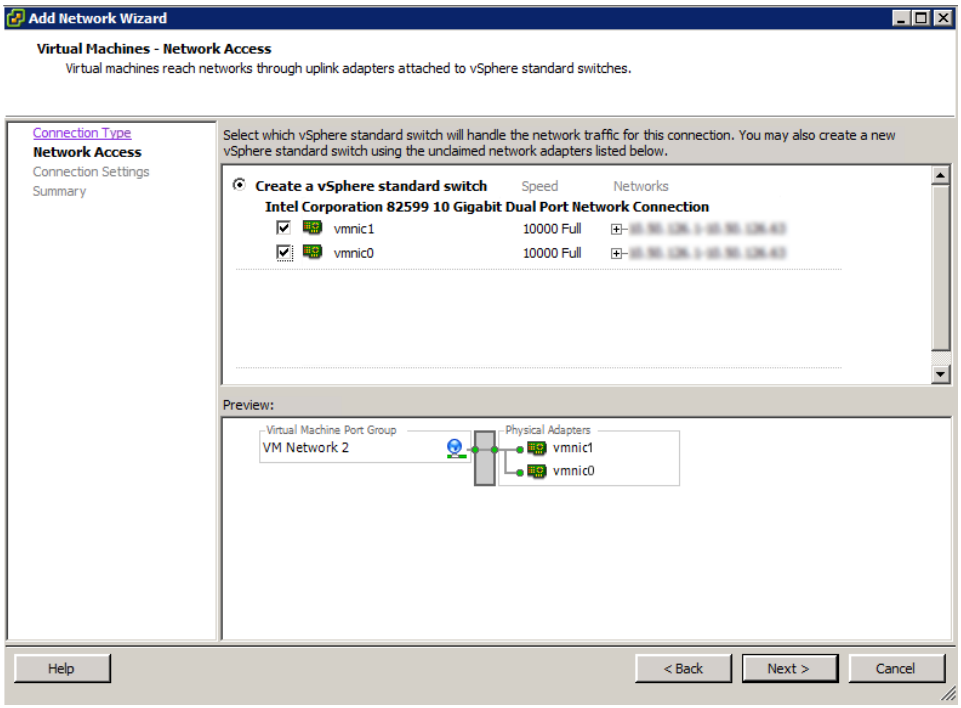

Figure 44 Create vSphere Standard Switch

4. Assign a name for the VDI VLAN that will host user virtual desktops and a VLAN ID and click **Next**.

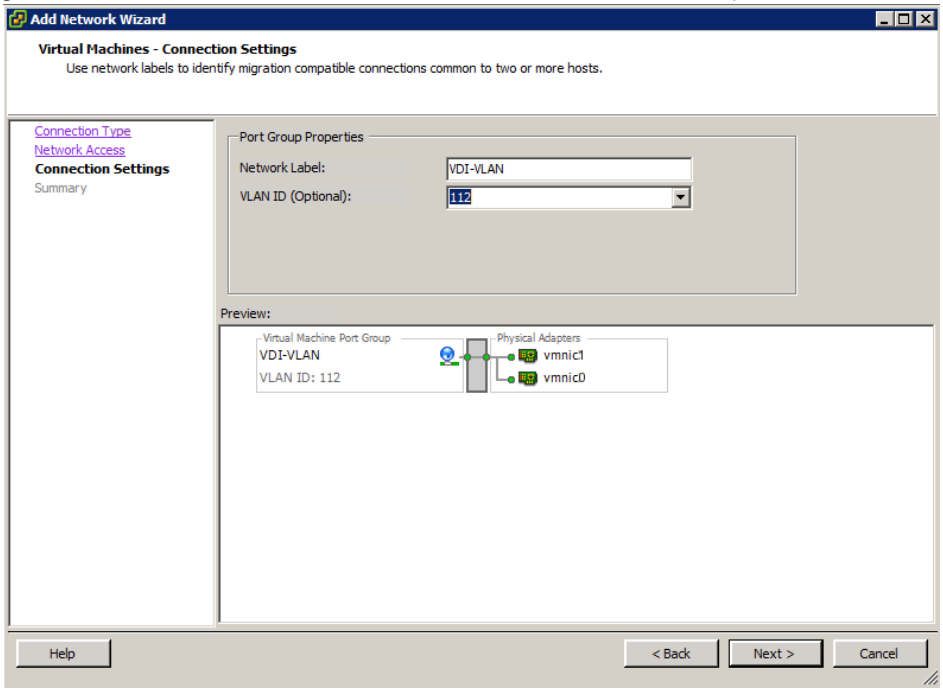

Figure 45 Assign Network Label and VLAN ID

5. Click **Finish** to complete.

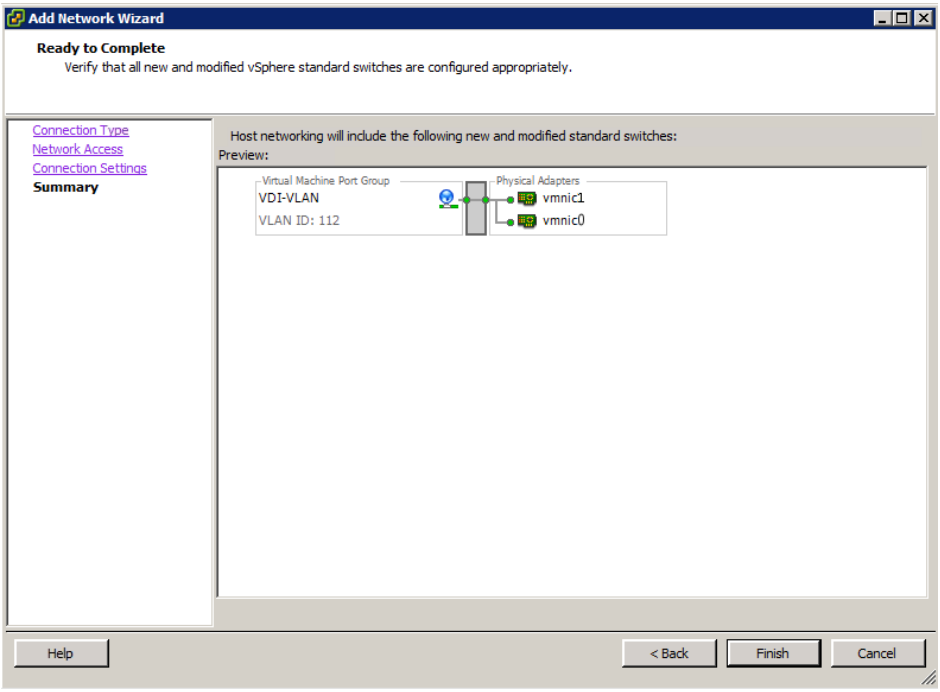

Figure 46 Finish Network Configuration

6. Repeat tasks 1—2 to create a second Virtual Machine Port Group to host the Nutanix CVMs and vCenter VMs and use the previously created vSwitch.

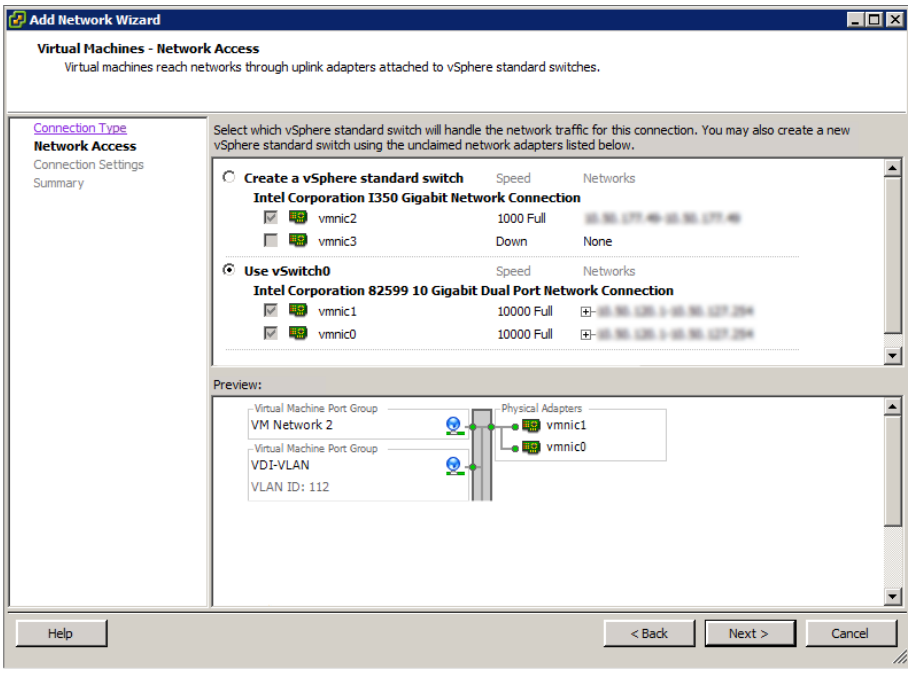

Figure 47 Create Second Port Group

7. Assign a name and VLAN ID, and then click **Next** and click **Finish** to complete.

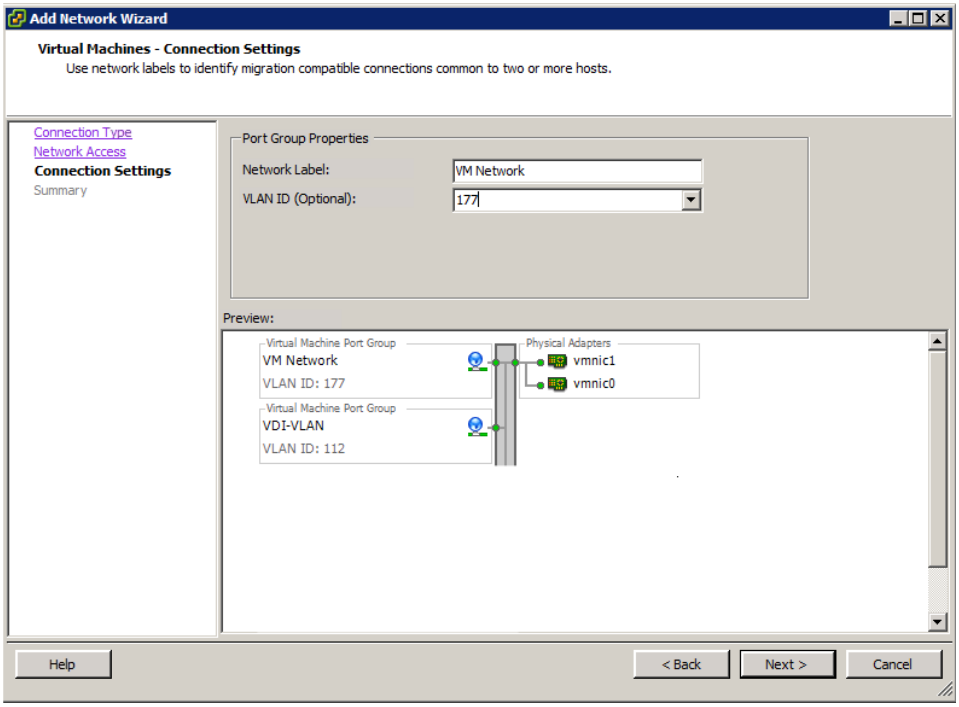

Figure 48 Assign Network Label and VLAN ID

8. Click **Add Networking** again and create a VMKernel connection type for the vMotion network, and then click **Next**.

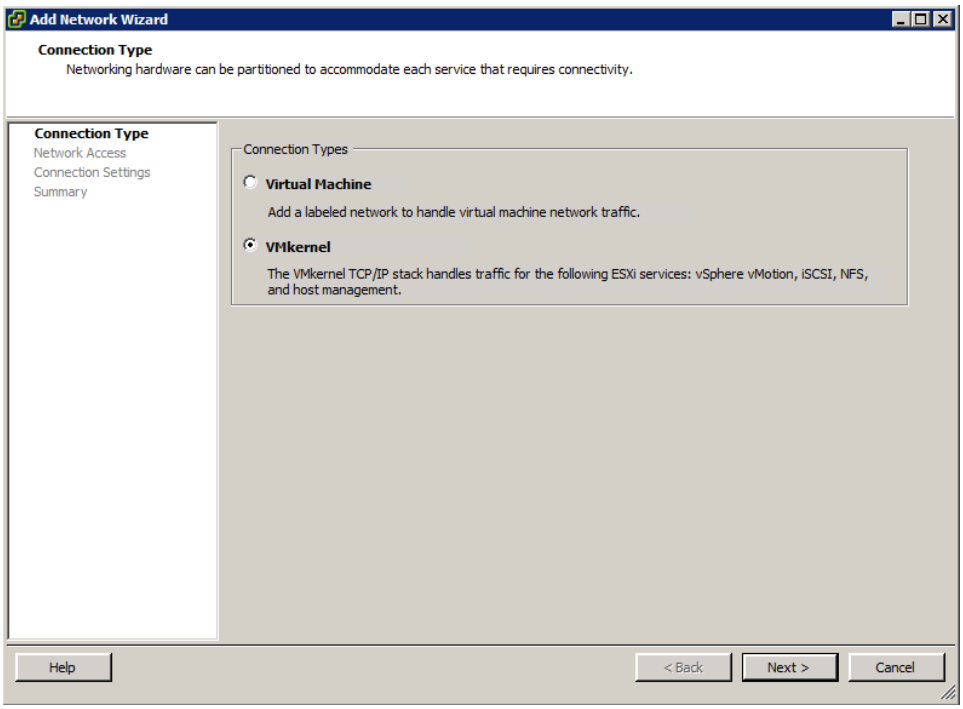

Figure 49 Create VMKernel

9. Select the existing vSwitch and click **Next**.

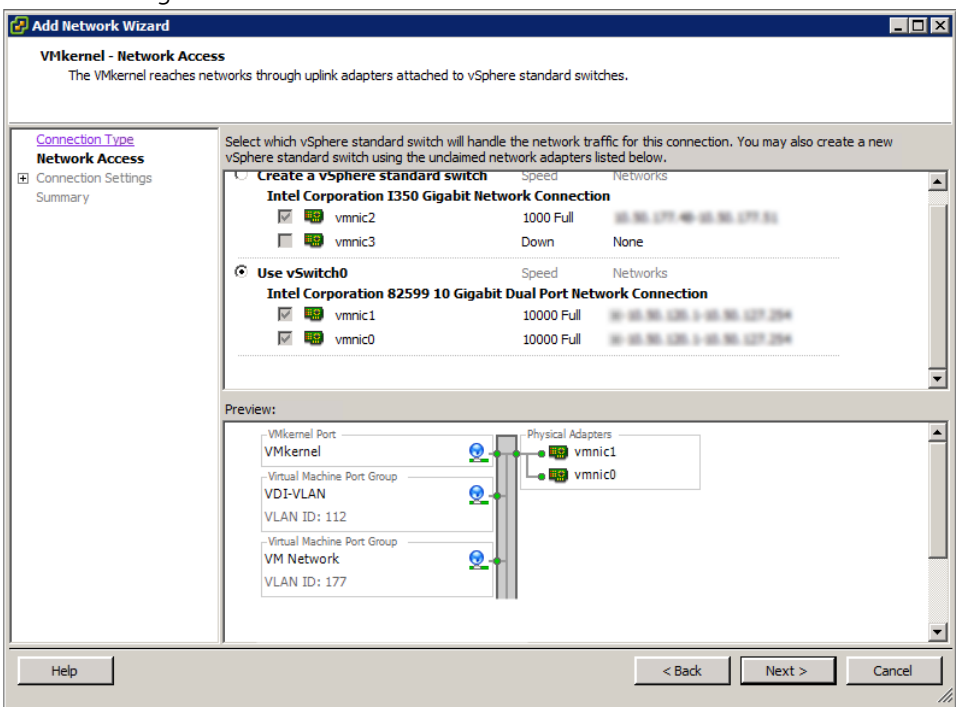

Figure 50 Select vSwitch

10. Assign a name and VLAN ID and select the **Use this port group for vMotion** check box and click **Next**.

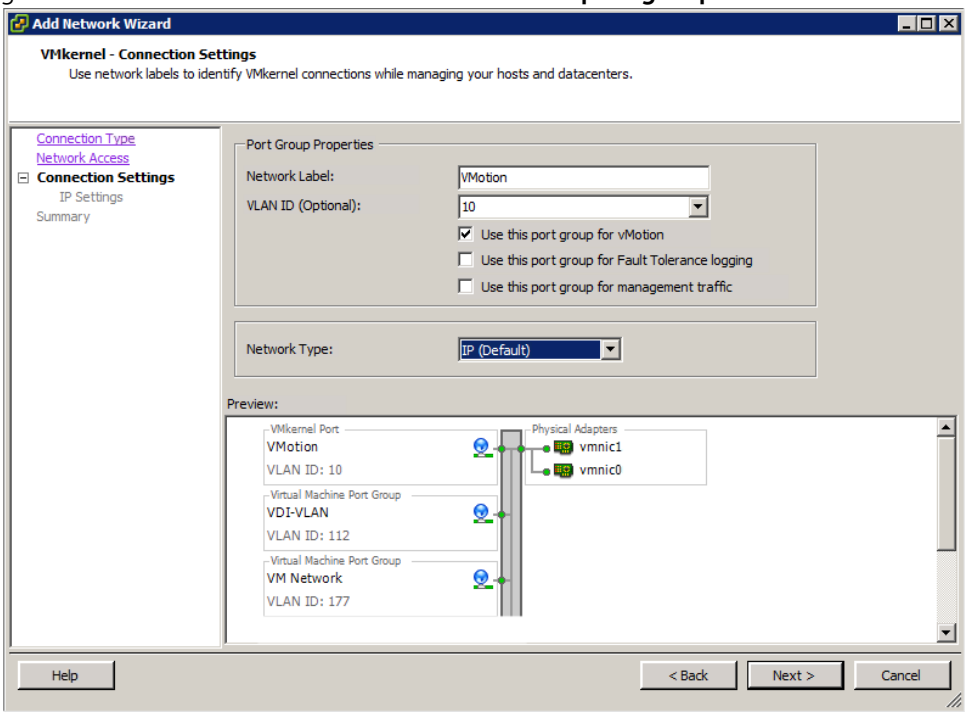

Figure 51 Assign port name for vMotion

11. Assign an IP address and click **Next**.

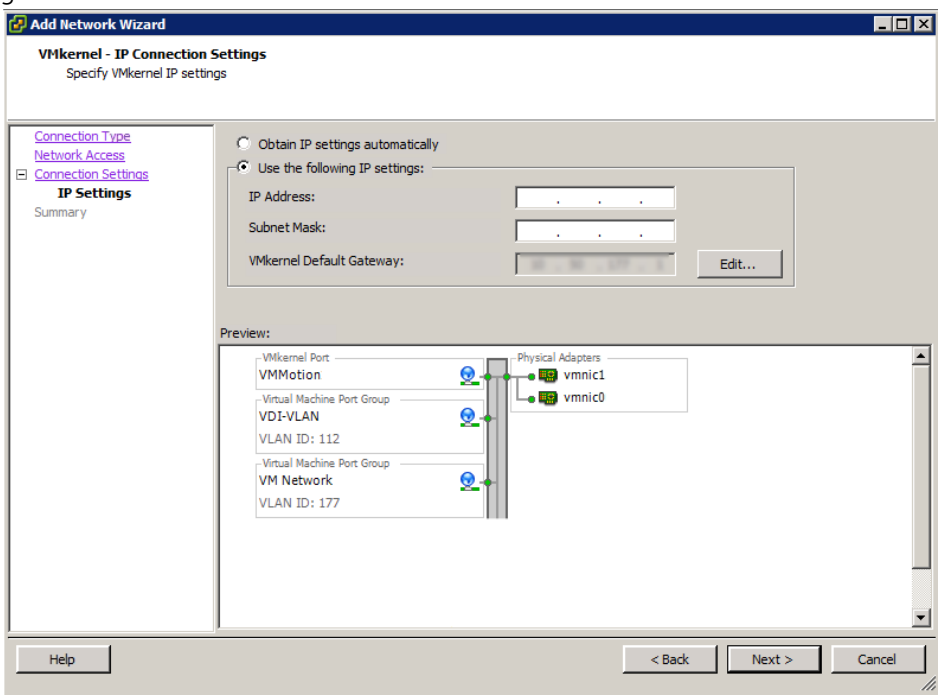

Figure 52 Assign IP Address

12. Click **Finish** to complete.

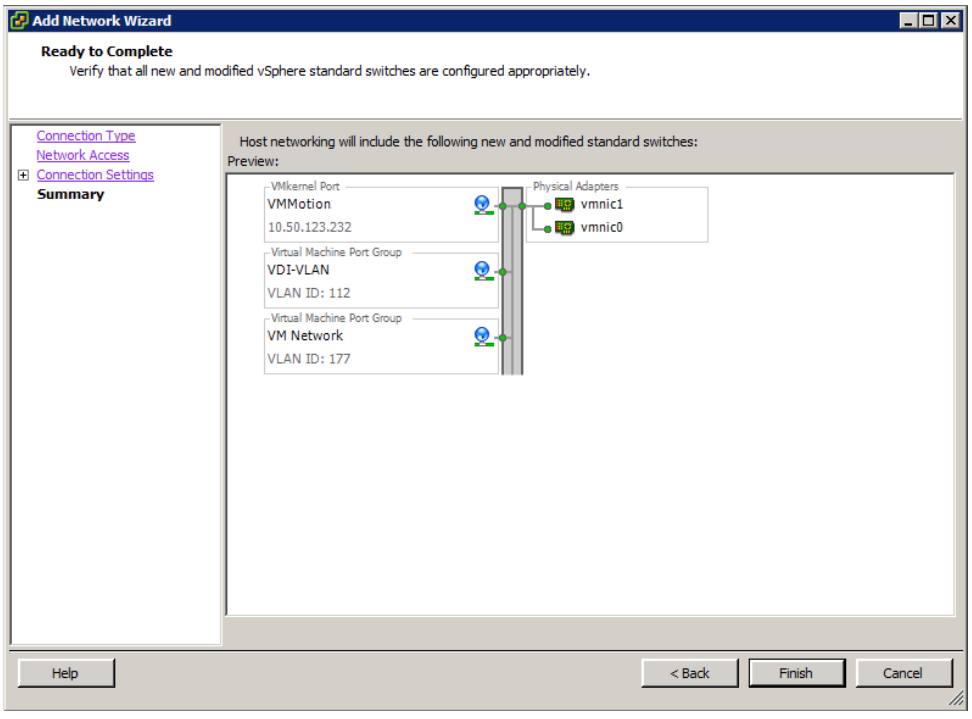

Figure 53 Finish vSphere Switch Configuration

13. Repeat tasks 8 and 9 to create another VMkernel Port for the Management network.
14. Assign a name and VLAN ID, select the **Use this port for vMotion** check box and **Use this port group for management traffic** check box, select **IP** and **IPv6** as the Network Type, and then click **Next**.

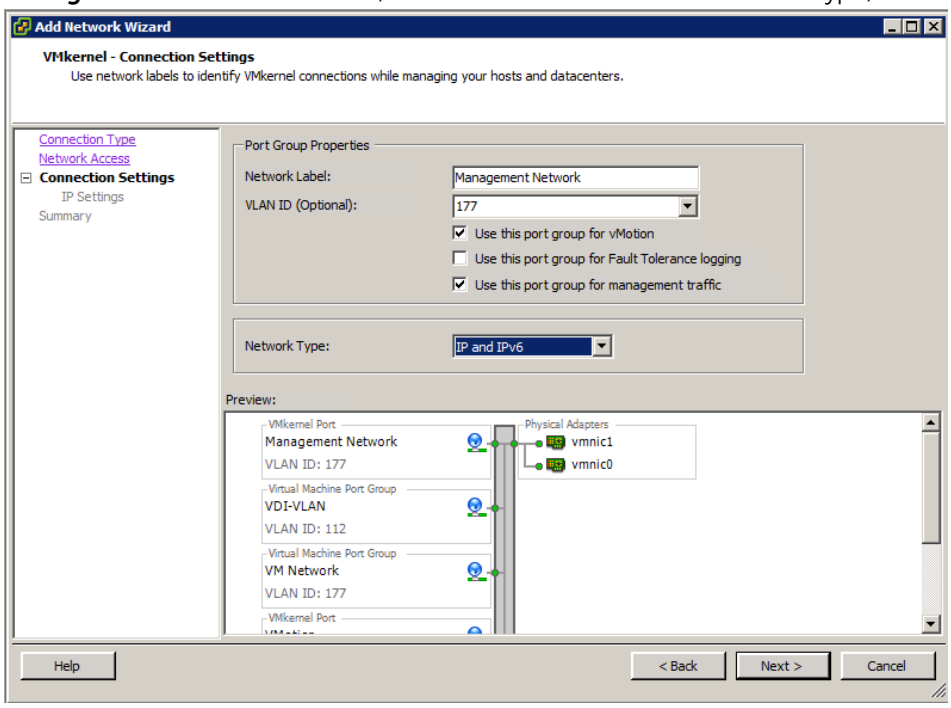

Figure 54 VMkernel Connection Settings

15. Enter an IP address and click **Next**.

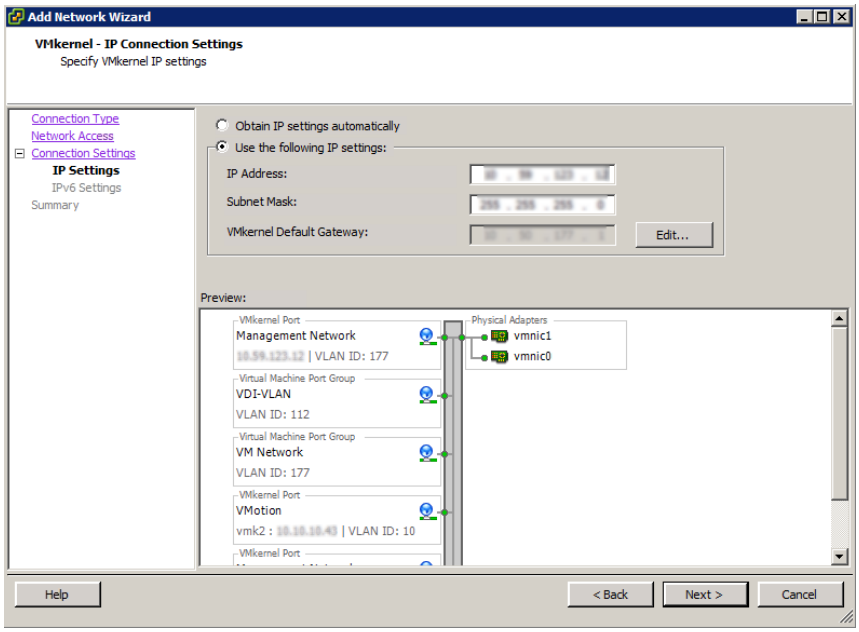

Figure 55 VMkernel IP Settings

16. Select the **Obtain IPv6 address automatically through Router Advertisement** check box and click **Next**.

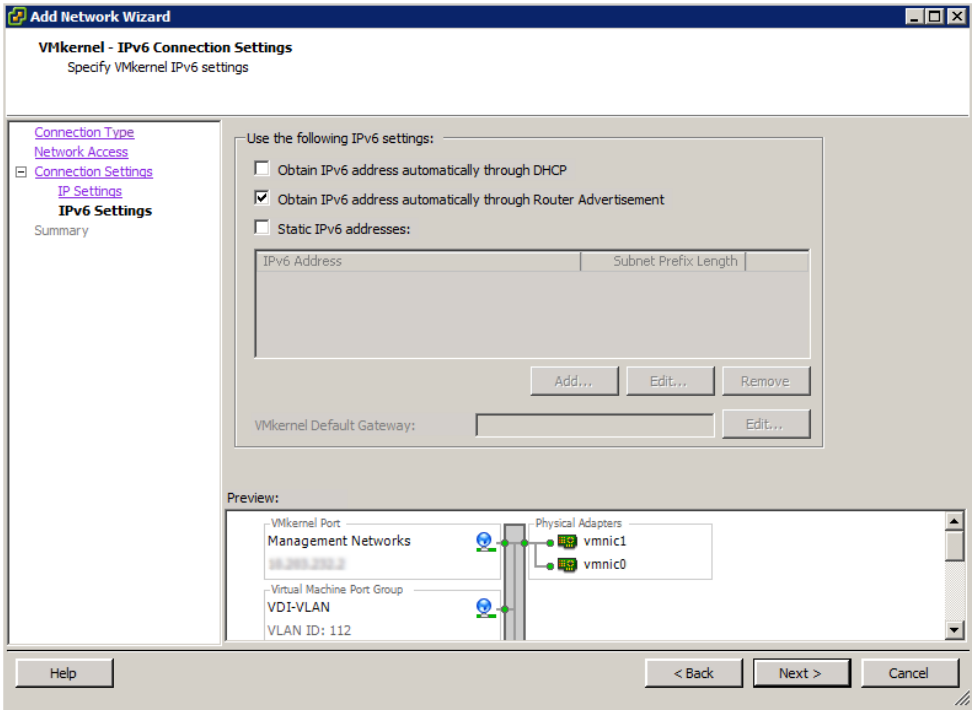

Figure 56 Automatically Obtain IPv6 Address

17. Click **Finish** to complete.

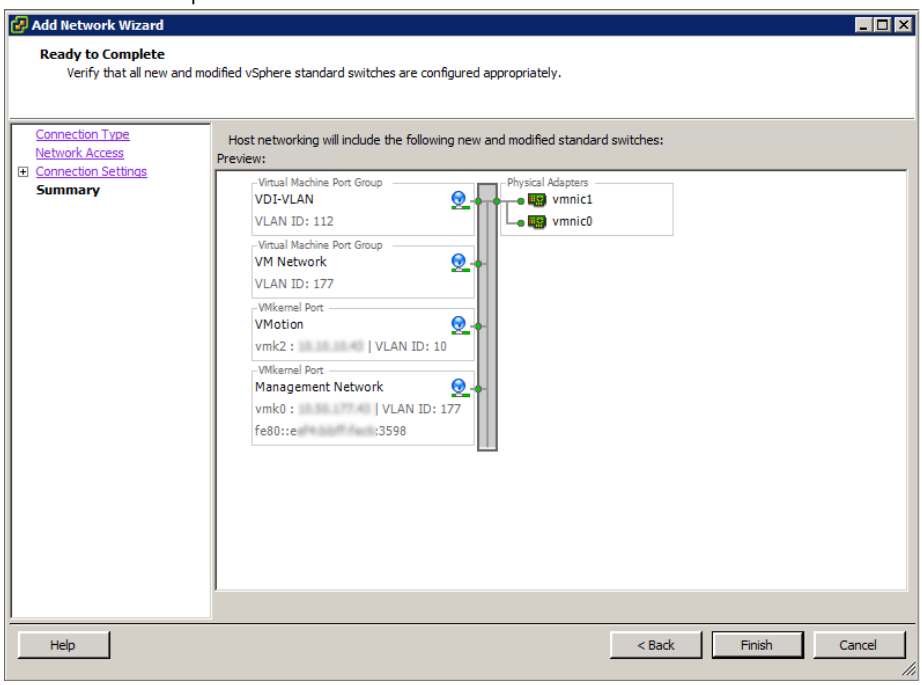

Figure 57 Configuration Complete

18. Click **Add Networking** to create a second switch for the internal CVM traffic and select the Virtual Machine connection type, and then click **Next**.

Note: This internal switch is created automatically during the Nutanix install process but is included here for reference and in case the switch needs to be re-created.

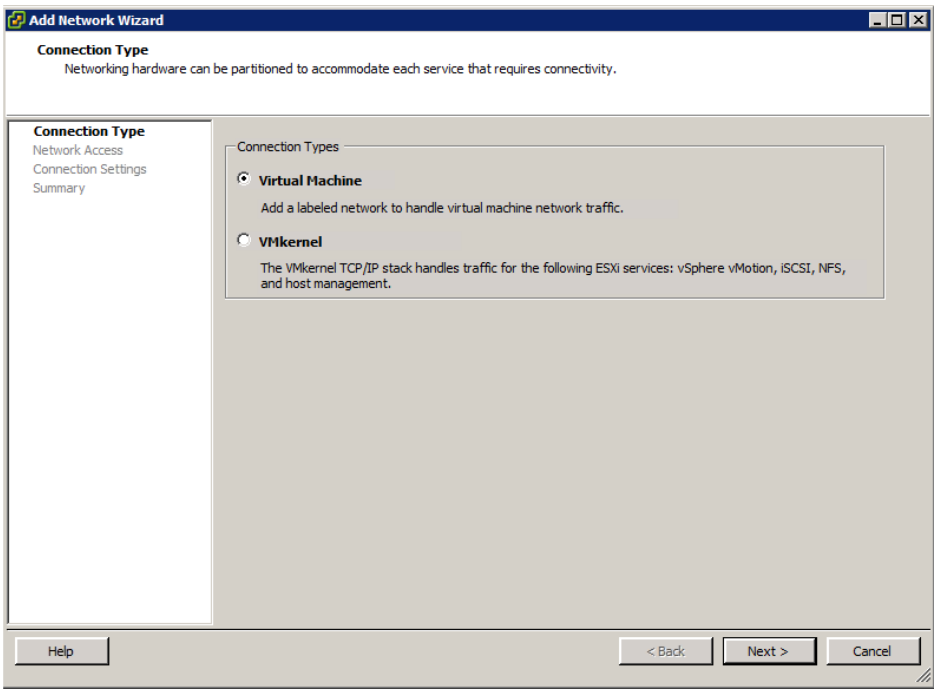

Figure 58 Create Second Switch

19. Click **Create a vSphere standard switch** and deselect any network adapters and click **Next**.

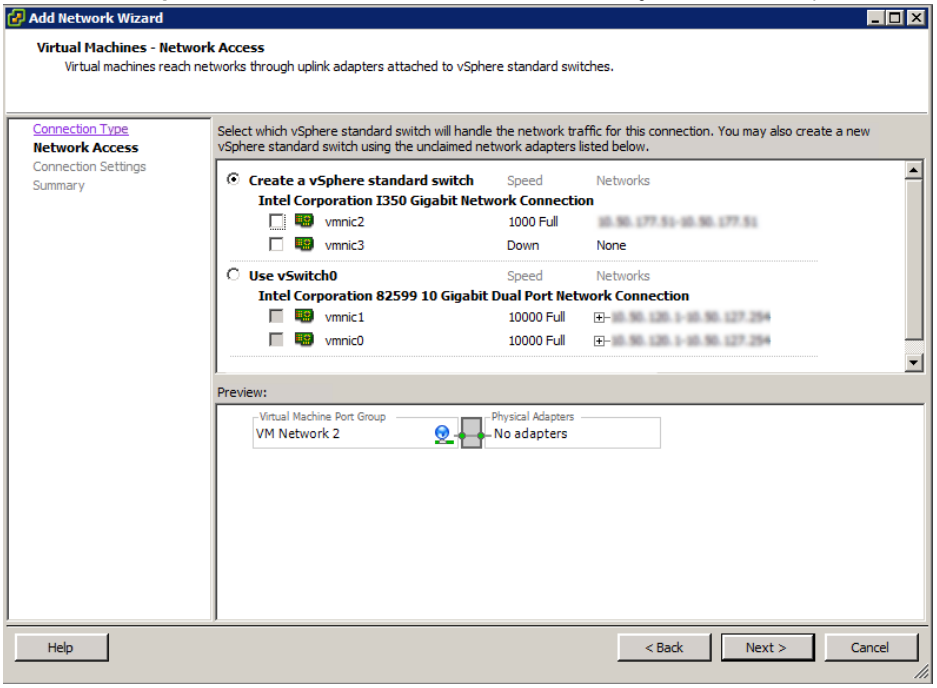

Figure 59 Create vSphere Standard Switch

20. Type a network label in the **Network Label** box and click **Next**.

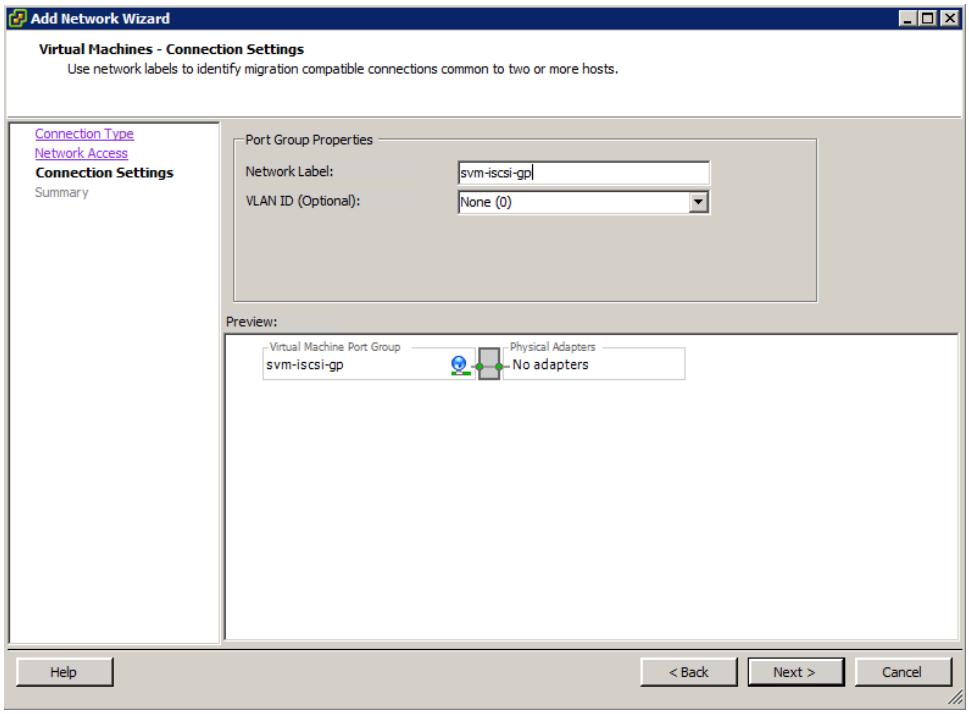

Figure 60 Assign Network Label

21. Click **Finish** to complete.

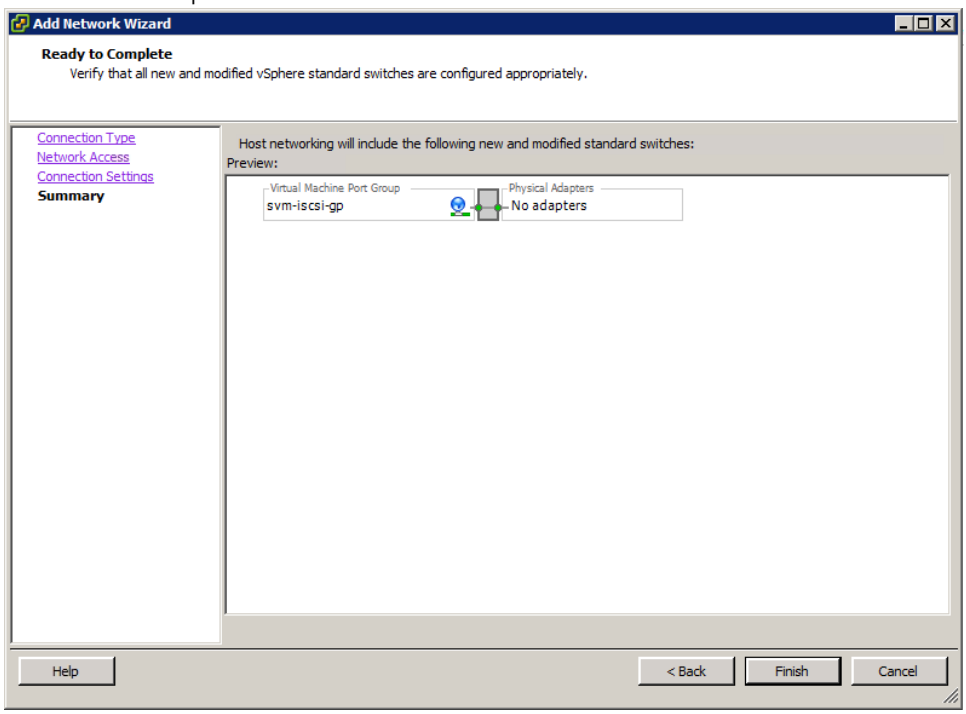

Figure 61 Completed Adding Switches

22. Click **Add Networking** again and select a VMkernel connection type.

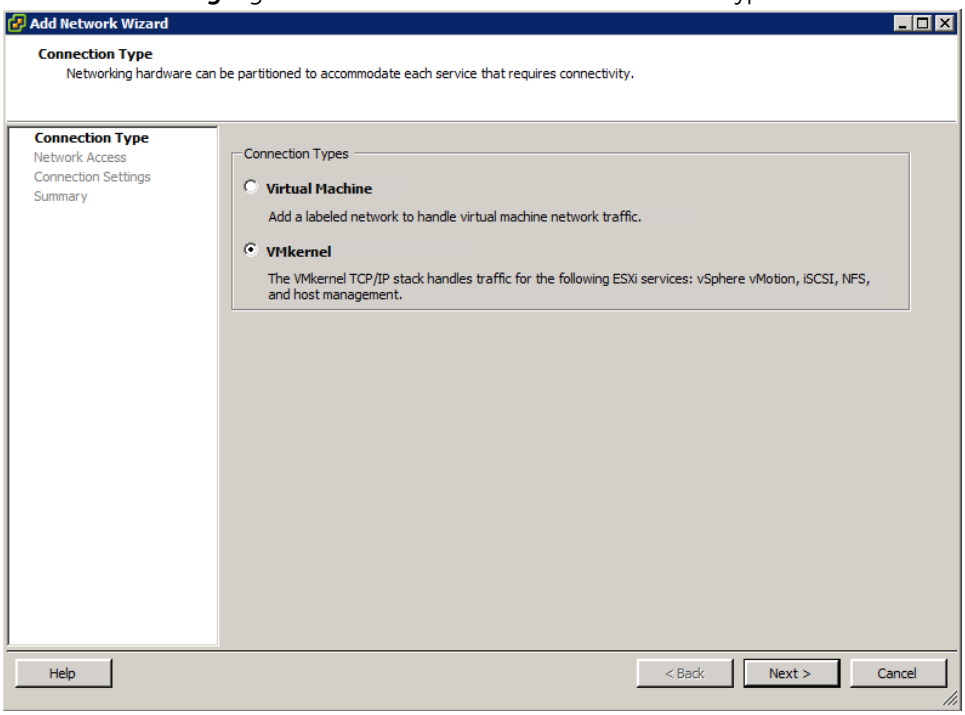

Figure 62 Adding VMKernel Connection

23. Select the newly created switch and click **Next**.

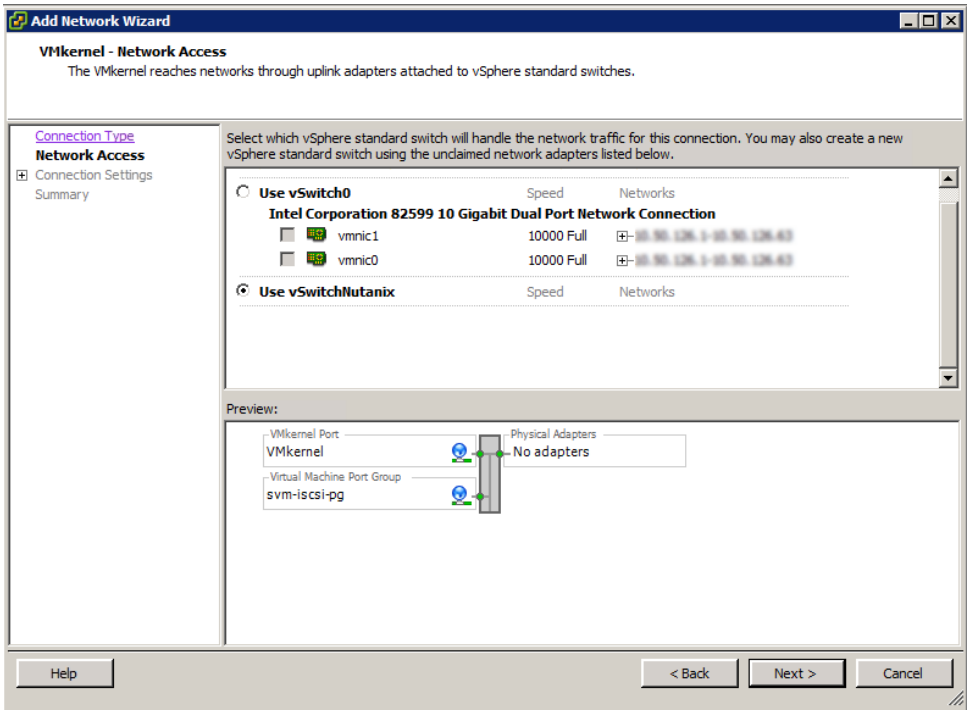

Figure 63 Use Newly Created Switch

24. Assign a network label and click **Next**.

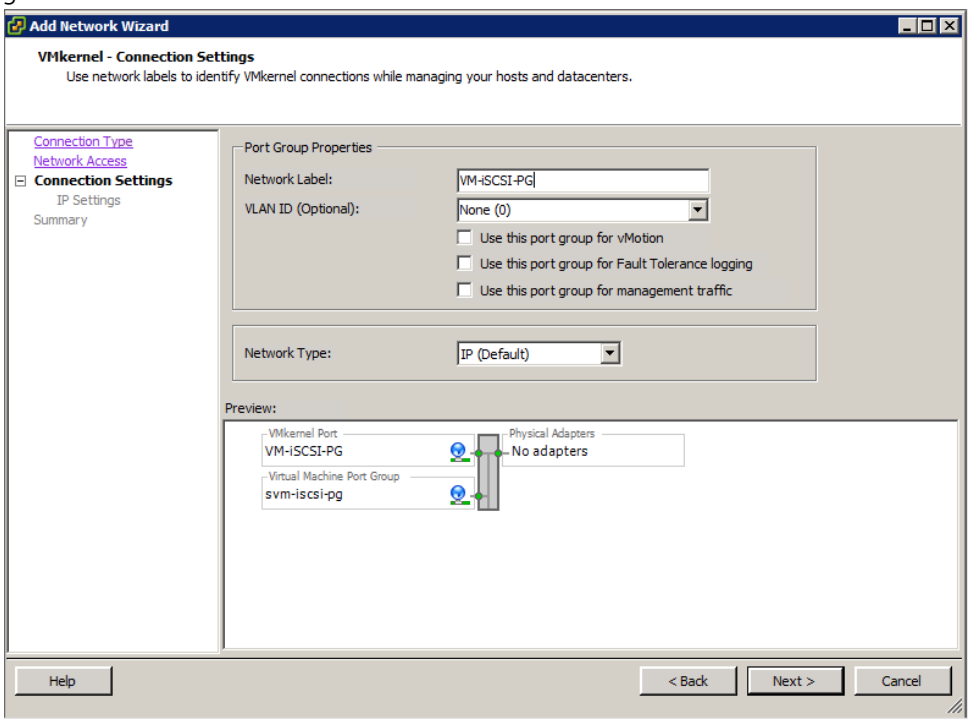

Figure 64 Assign Network Label

25. Assign an IP address and click **Next**.

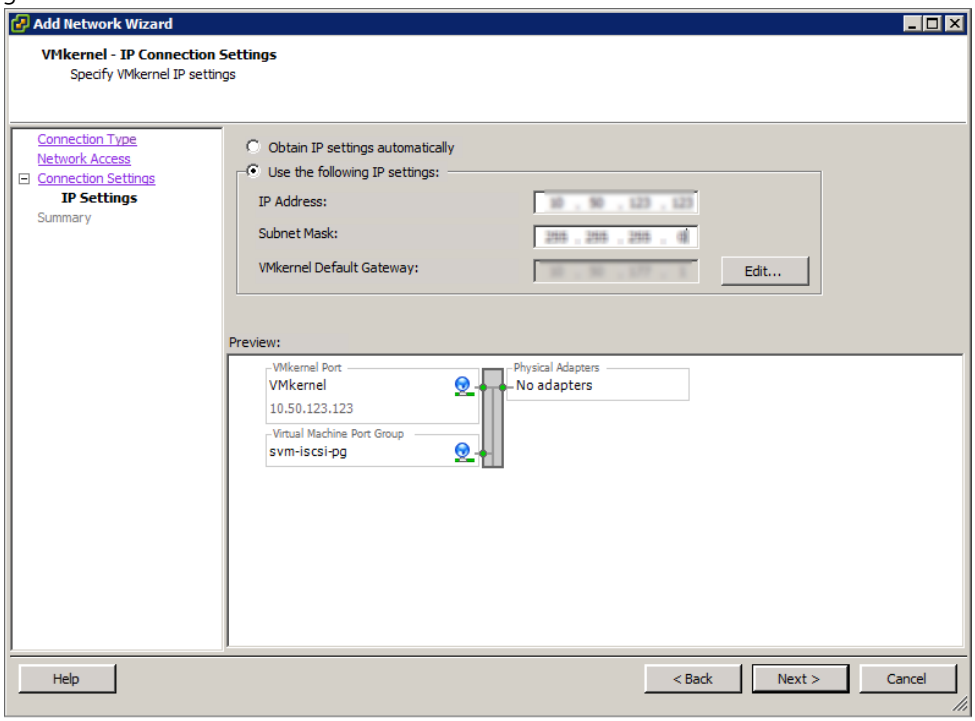

Figure 65 Assign IP Connection Settings

26. Click **Finish** to complete.

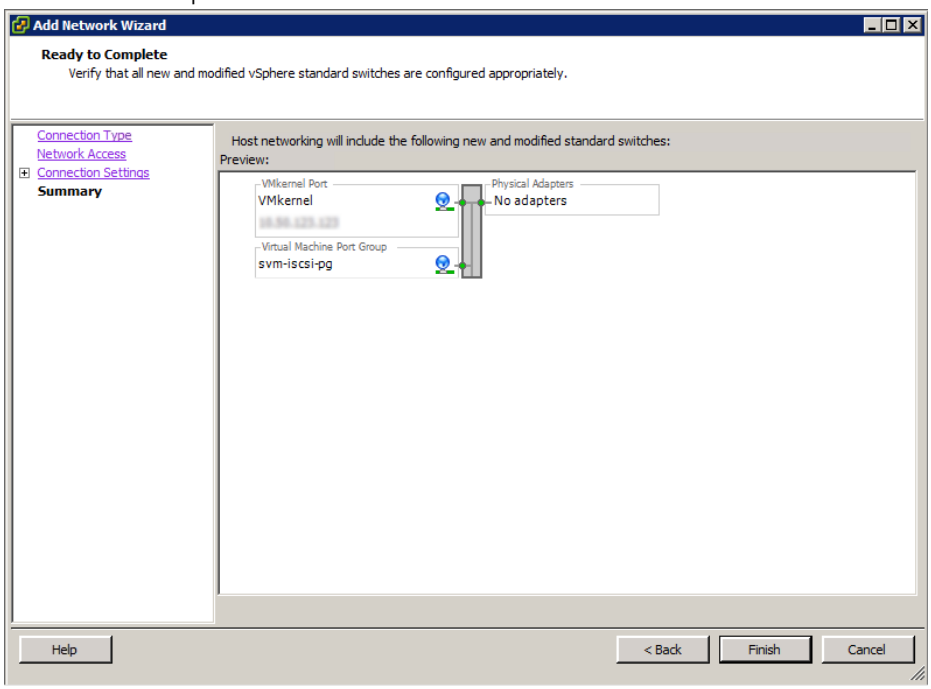

Figure 66 Completed Network Configuration

The completed networking topology should look like the one shown in the screen shot here.

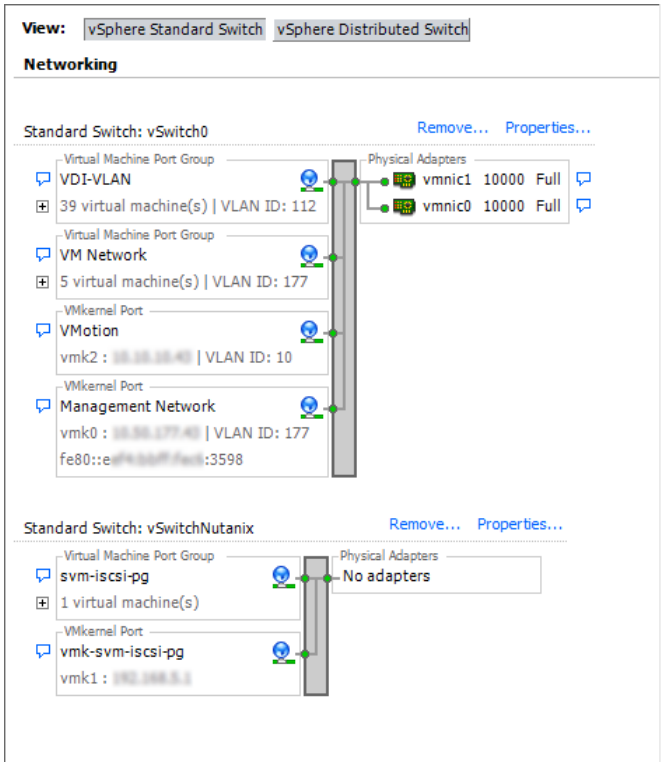

Figure 67 Completed Networking Topology

4 Installing SQL Server

Create a virtual machine using the disk space and CPU settings recommended in the table here for hosting MSSQL Server and install the Windows Server 2012 R2 operating system.

Role	vCPU	vRAM (GB)	NIC	OS vDisk	
				Size (GB)	Location
Primary SQL	4	8	1	40 + 200	SDS: ds_mgmt

To install SQL Server:

1. From the SQL VM, access the SQL setup files (go to file share, copy locally, insert DVD, download, etc.)
2. Run `Setup.exe`, in the left pane, click **Installation**, and then select **new stand-alone installation**.
3. To continue earlier discovery operation, click **OK**.
4. On the **Language selection** page (if displayed), click **Next**.
5. On the **Product Key** page, type PID, and then click **Next**.
6. Accept license terms and click **Next**.
7. Enable setup to download and use update files and click **Next**.
8. Note any warnings or issues from the report and click **Next**.
9. Select **SQL Server Feature Installation** and click **Next**.
10. Database Engine Services, Management Tools (basic & completed), and SQL Client Connectivity SDK features must be installed. Other features can be installed as required. Click **Next** until you arrive at the instance configuration.
11. Specify "Default instance" and click **Next**. On the **Disk Usage** page, click **Next** again.
12. Change the SQL service accounts to the desired domain user accounts determined in the prerequisites. Make sure to specify the domain account and password. Click **Next** to continue.

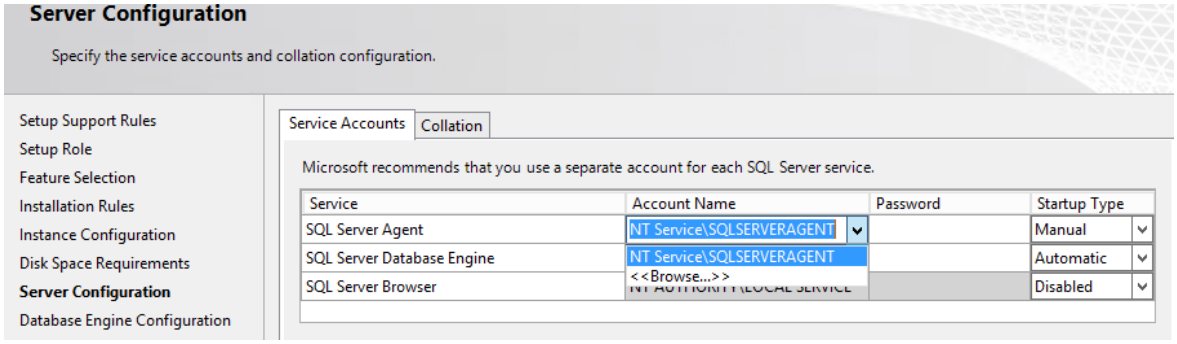

Figure 68 Server Configuration

13. Set to mixed mode authentication, specify a password for the SA account, and add domain user(s) or group(s) to be used for SQL administration.
14. On the **DataBase Engine Configuration** page, click the **Data Directories** tab. Change the database, log, and temp locations to the corresponding HDDs configured during the SQL VM creation. Unless you want to designate specific folders, the existing paths can be retained with only the drive letter being changed (for example "D:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data"). Click **Next**.

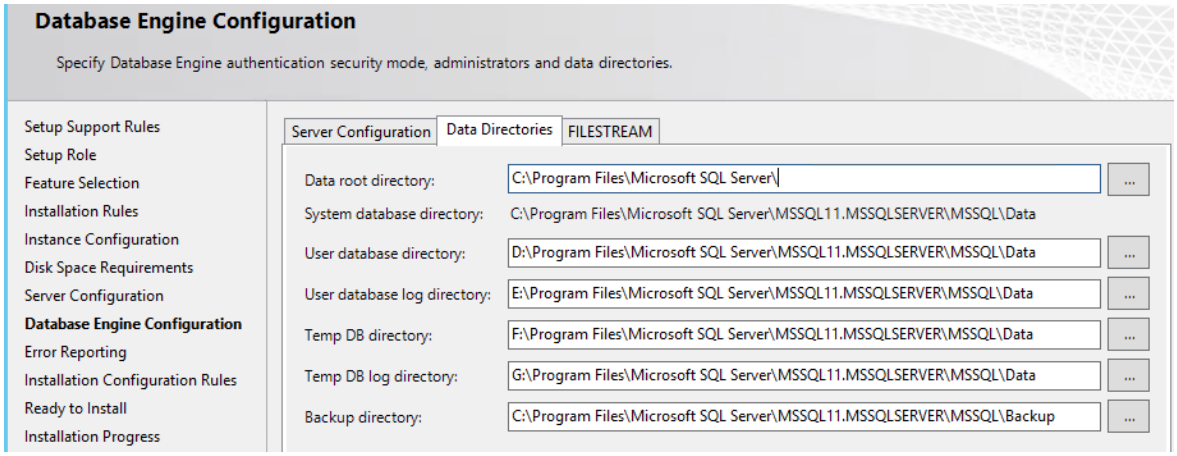

Figure 69 Database Engine Configuration

15. Click **Next** on **Error Reporting** and **Next** again on **Installation Configuration Rules**. To begin installation, click **Install** and after completing the installation process, and then click **Close**.

5 Installing VMware View Connection Server

Create a virtual machine using the below recommended memory and CPU settings for hosting View Connection Server and install Windows Server 2012 R2 operating system.

Role	vCPU	vRAM (GB)	NIC	OS vDisk	
				Size (GB)	Location
View Connection Server	4	8	1	40	SDS: ds_mgmt

1. Double-click **VMware-viewconnectionserver-x86_64-6.0.0-xxxxxx.exe** to start the installer. The installation wizard is displayed.

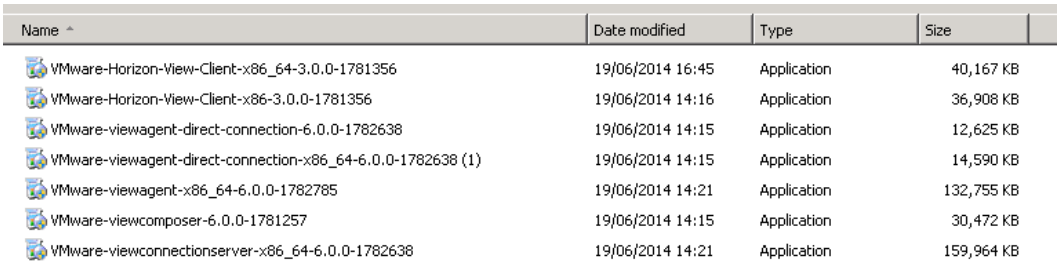

Figure 70 VMware Horizon View Connection Server Installer

2. On the Welcome page, click **Next**.

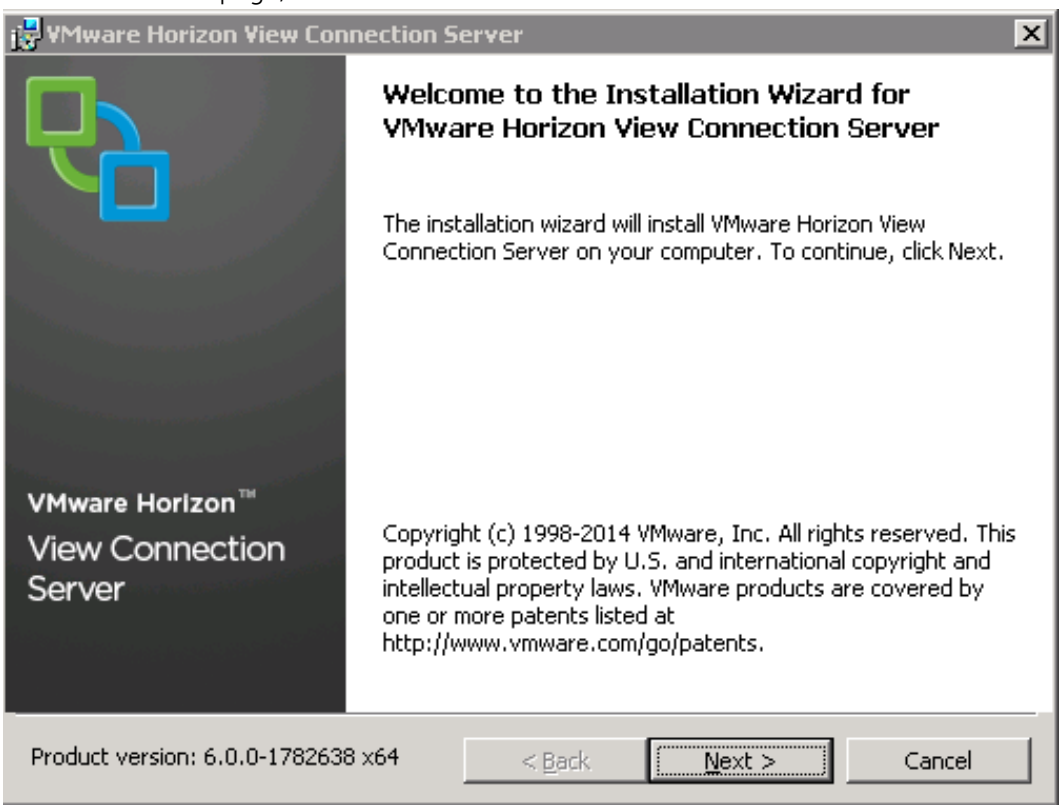

Figure 71 VMware Horizon View Connection Server Welcome Page

3. Read and accept the VMware license agreement, and then click **Next**.

Figure 72 License Agreement

4. By default, the path of the folder where **VMware View Connection Server** is installed is displayed. To change the location, click **Change**, and then type the new file folder path. Click **Next**.

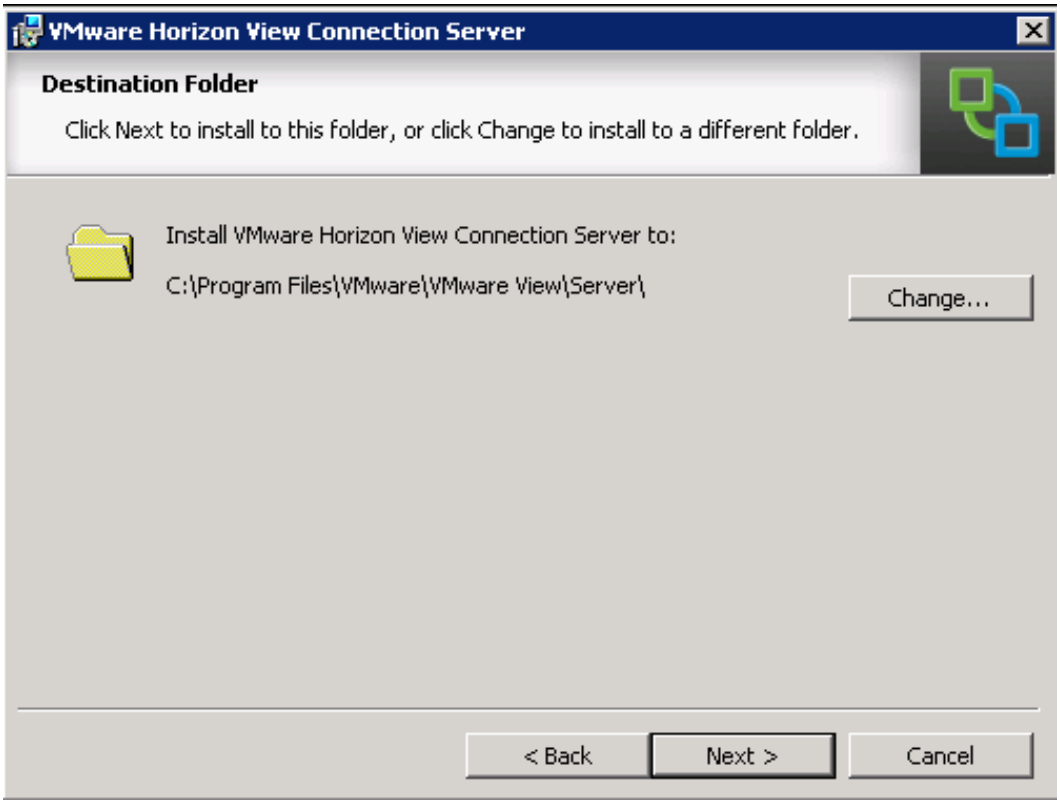

Figure 73 Specifying Destination Folder for Installation

5. Select **View Standard Server** as the server installation type and click **Next**. Alternately, you can select the **Install HTML Access** check box to connect to desktop pools using HTML5 by using a Web browser. This configuration is not required for Dell XC720xd for Desktop Virtualization.

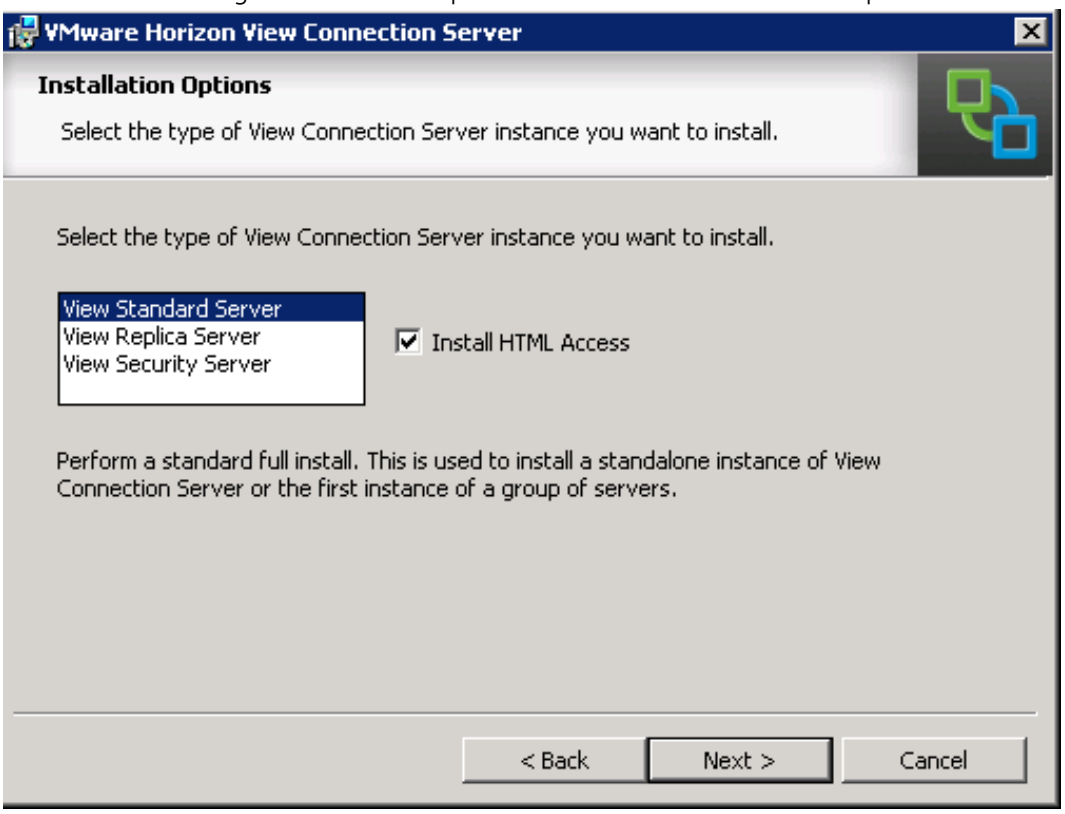

Figure 74 Other Installation Options

6. Type a password for the data recovery. This is used to recover the View Connection Server AD LDS (ADAM) database backups. Click **Next**.

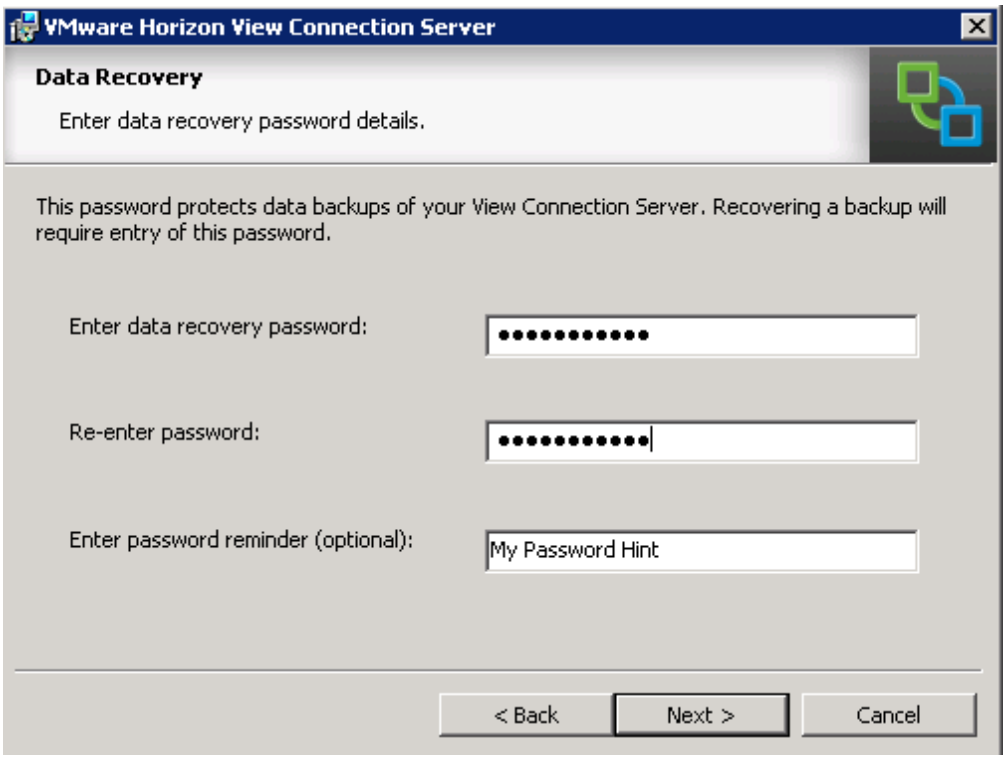

Figure 75 Setting up Data Recovery Password

7. To configure Windows firewall to allow incoming TCP connections to the View Connection Server, click **Configure Windows Firewall automatically**, and then click **Next**.

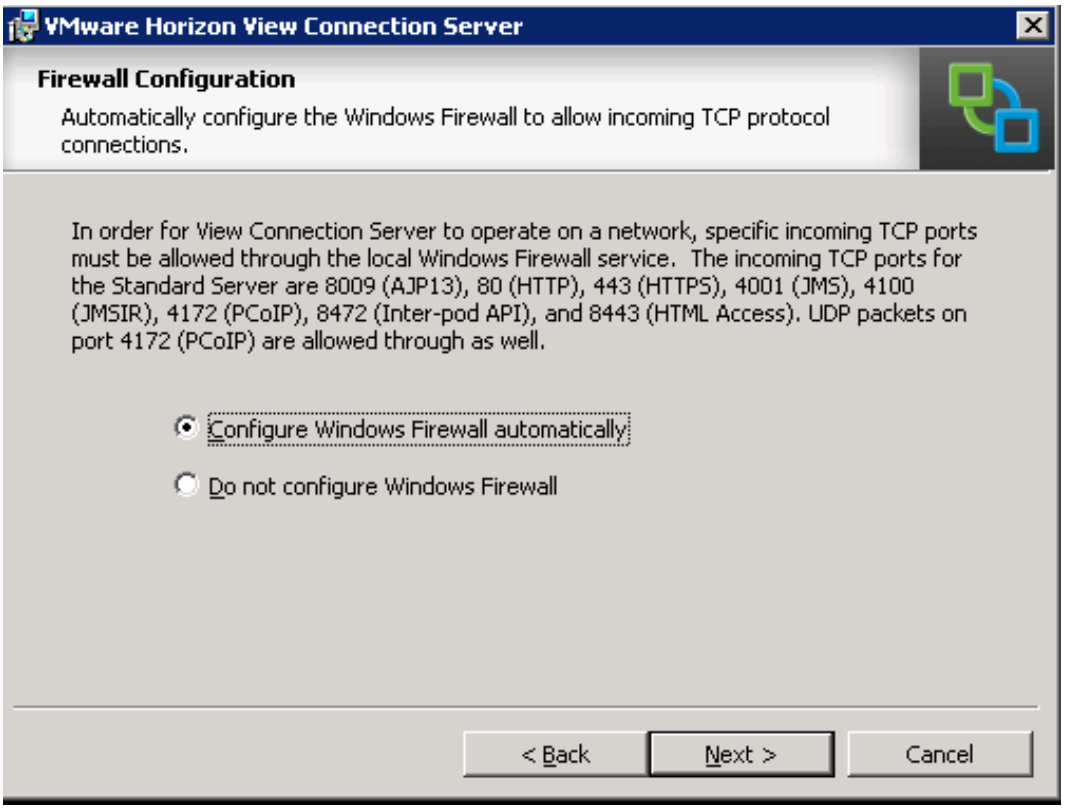

Figure 76 Firewall Configuration

8. To authorize a domain group that will have management access to the View console, click **Authorize a specific domain user or domain group**.

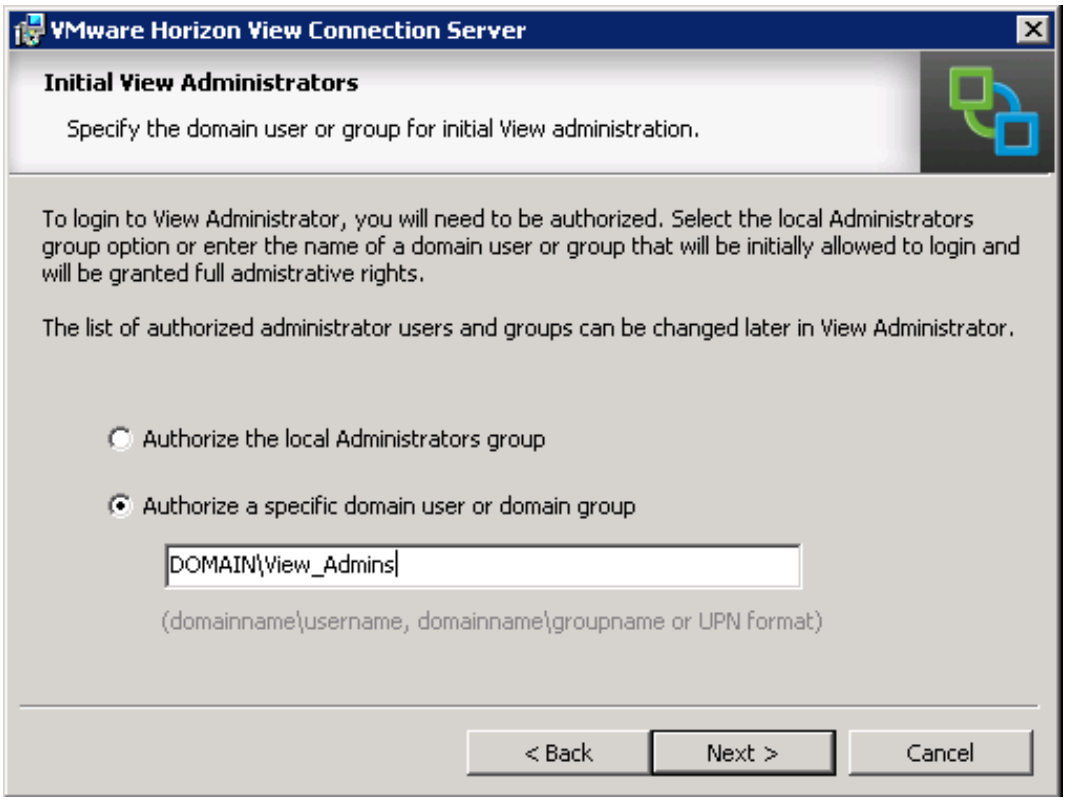

Figure 77 Setting up Initial View Administrators

9. To not participate in the user-experience improvement program, clear the **Participate anonymously in the user experience improvement program** check box.

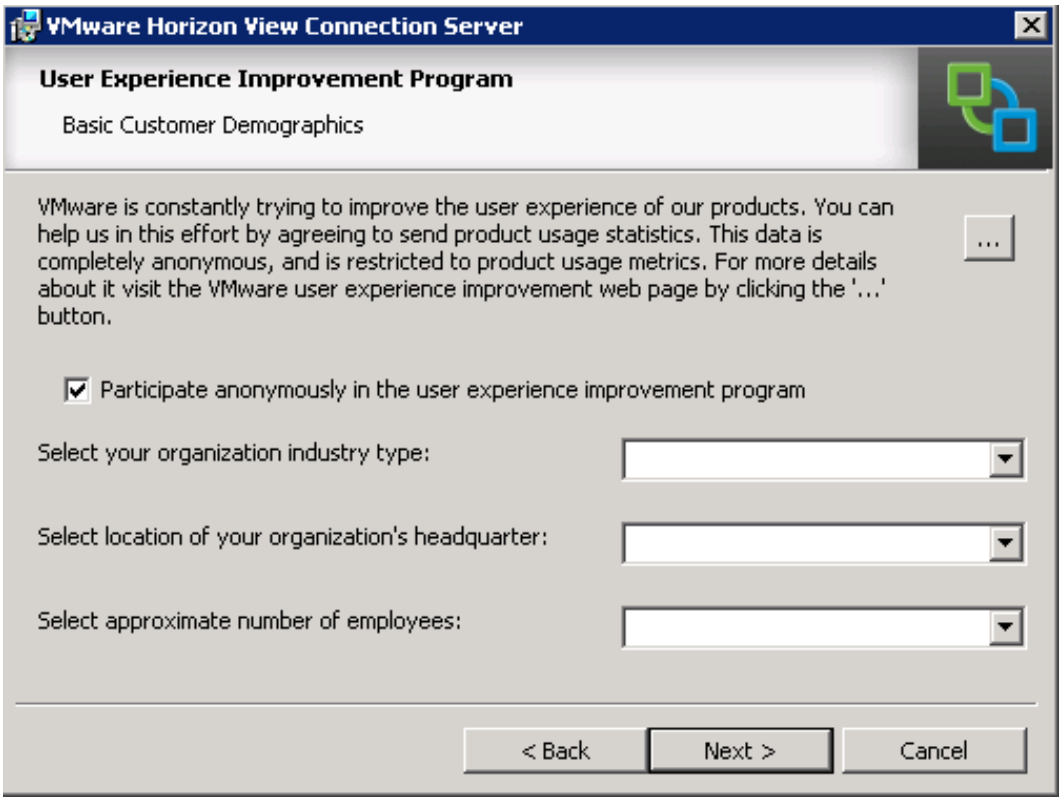

Figure 78 Participating in User Experience Improvement Programs

10. To start installation of the View Connection Server, click **Install**.

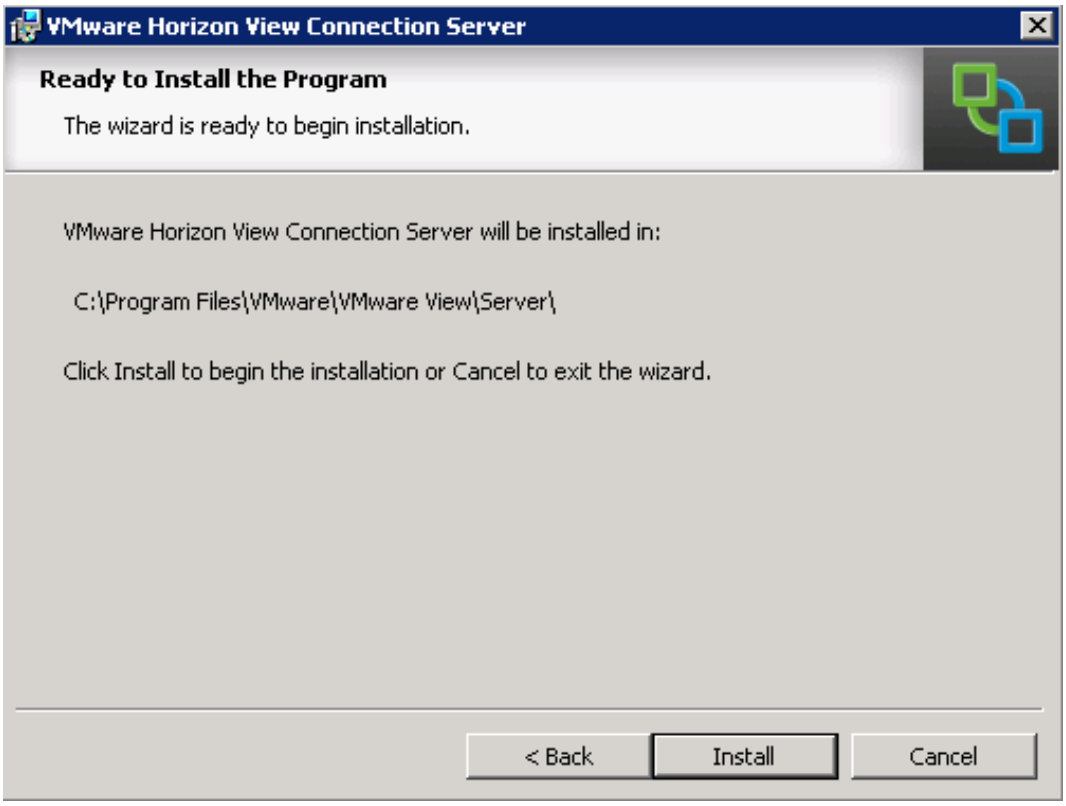

Figure 79 Start Install of View Connection Server

11. After the installation process is completed, clear the **Show Readme file** check box, and then click **Finish**.

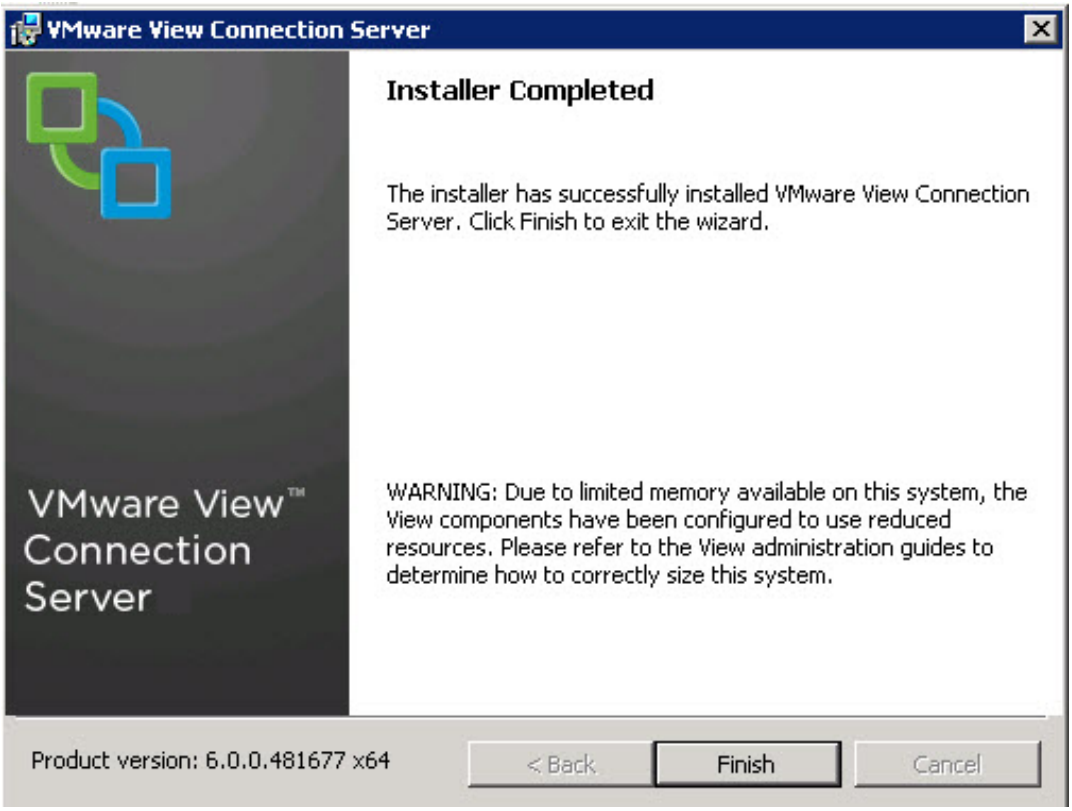

Figure 80 Finish Install of View Connection Server

12. The View Connection Server can now be managed by using the Vmware Horizon View Administrator Web site: https://viewconnectionservername/admin

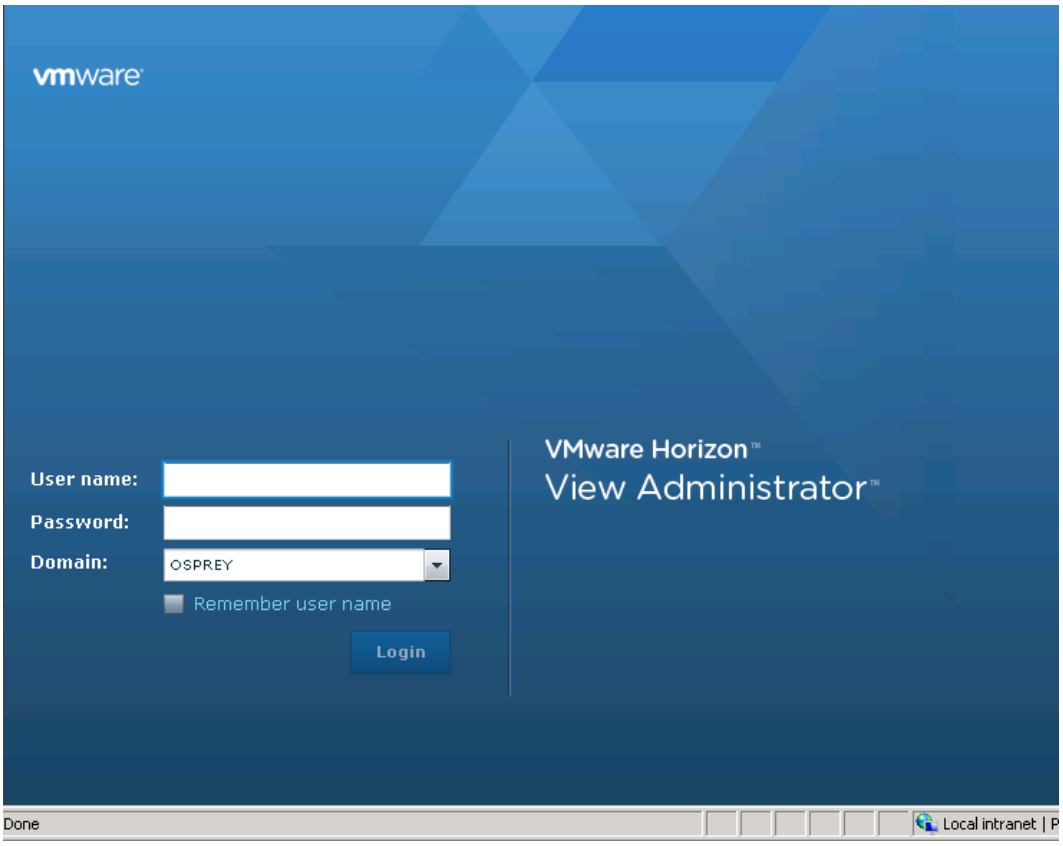

Figure 81 Horizon View Webpage Login

6 Installing a VMware View Composer Instance

Create a virtual machine using the below recommended memory and CPU settings for hosting View Composer and install Windows Server 2012 R2 operating system.

Role	vCPU	vRAM (GB)	NIC	OS vDisk	
				Size (GB)	Location
View Composer	4	8	1	60	SDS: ds_mgmt

Before installing a composer, you must create a blank database (BD) on your SQL server. For this installation, a DB was created using all SQL default settings, and "SA" is specified as the owner.

Note: When installing View Composer as part of a VMware vCenter Appliance deployment, it must be installed on a standalone VM.

1. To start the installation process, double-click **VMware-viewcomposer-6.0.0-xxxxxx.exe**.

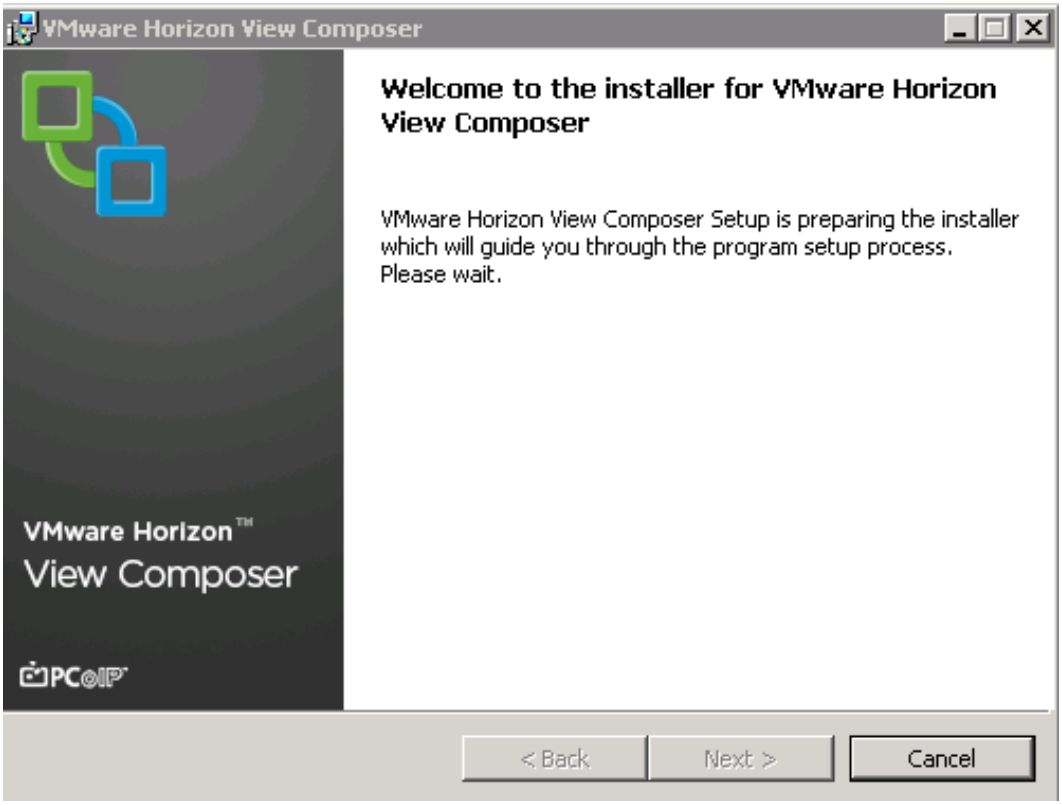

Figure 82 VMware Horizon View Composer Welcome Page

2. Read and accept the VMware license agreement, and then click **Next**.

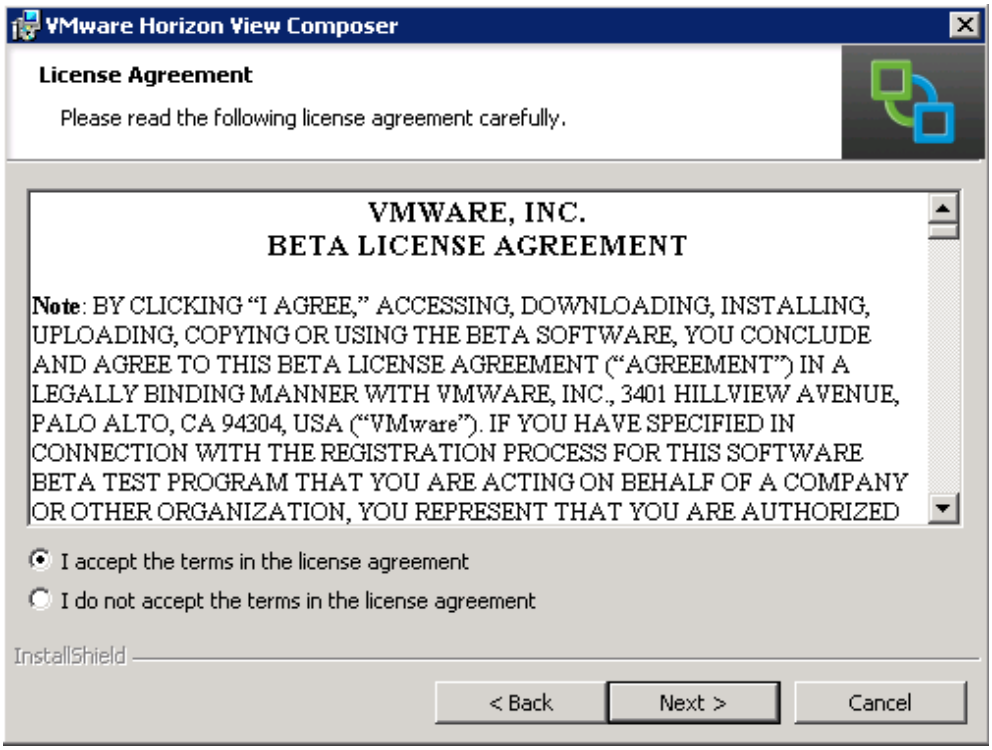

Figure 83 VMware Horizon View Composer License Agreement

3. By default, the path of the folder where VMware View Composer is installed is displayed. To change the location, click **Change**, and then type the new foder path. Click **Next**.

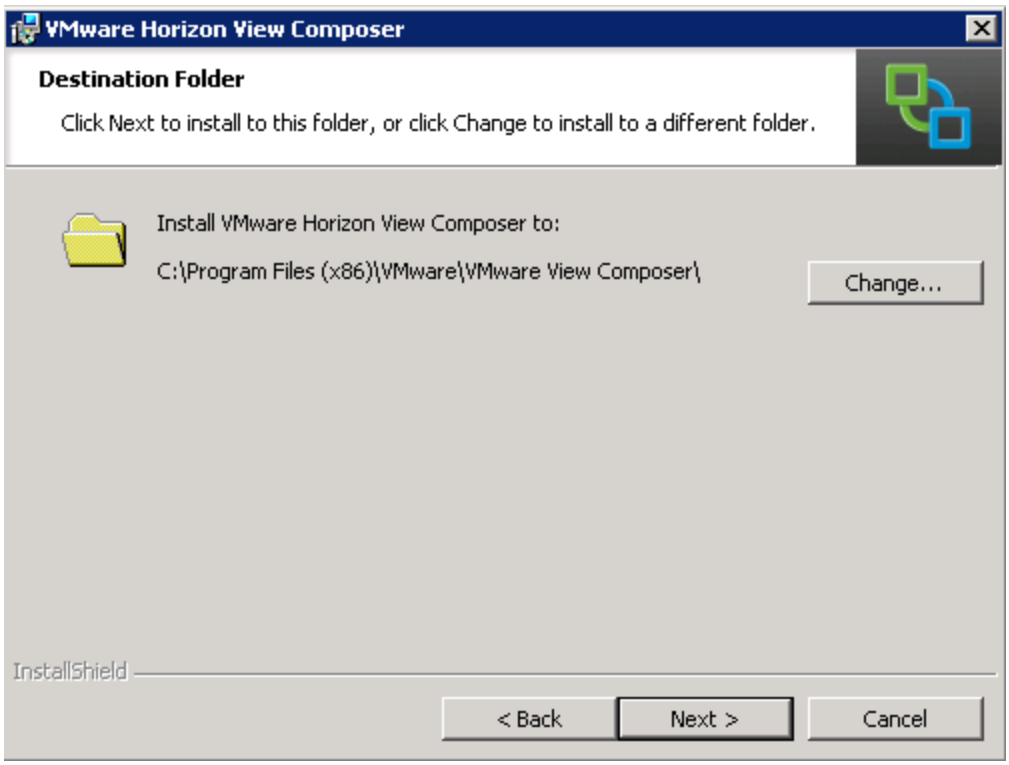

Figure 84 VMware Horizon View Composer Welcome Installation Folder

4. Type appropriate information about the database to which VMware Horizon View Composer is connected, and then click **Next**.

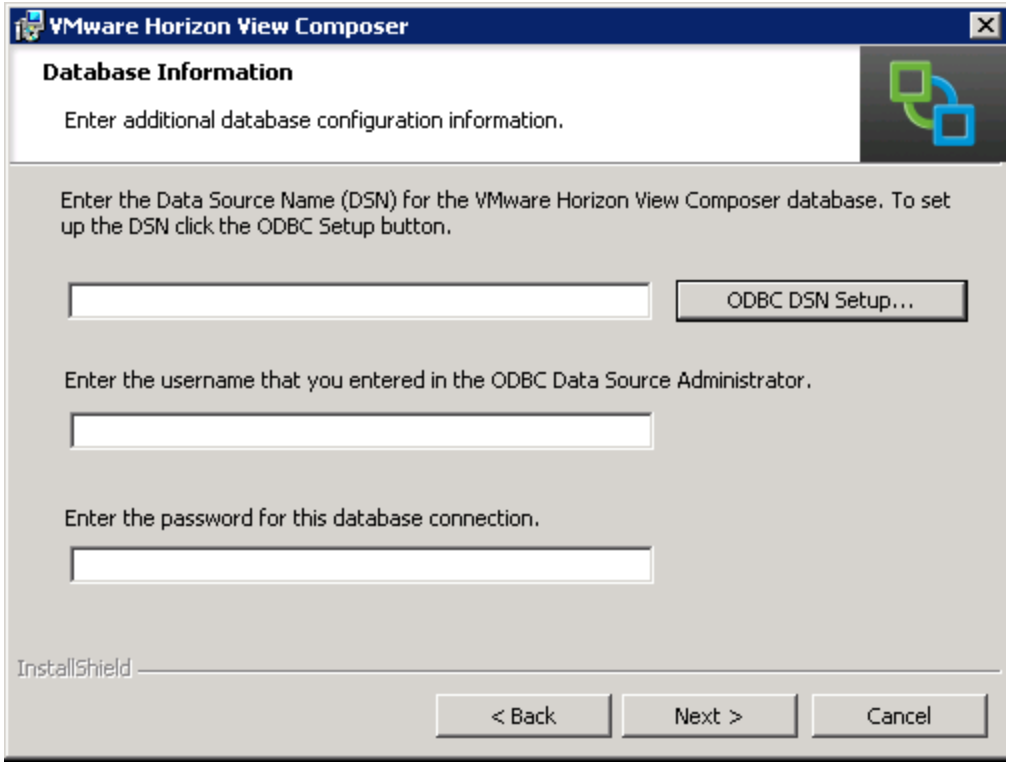

Figure 85 Connecting VMware Horizon View Composer Welcome to a Database

5. In the **SOAP Port** box, type the SOAP port to enable connection to the Composer, and click either:
   - **Create default SSL certificate**: To create a new, default, SSL certificate for connection purposes.
   - **Use an existing SSL certificate**: To use an existing SSL certificate Click **Next**.

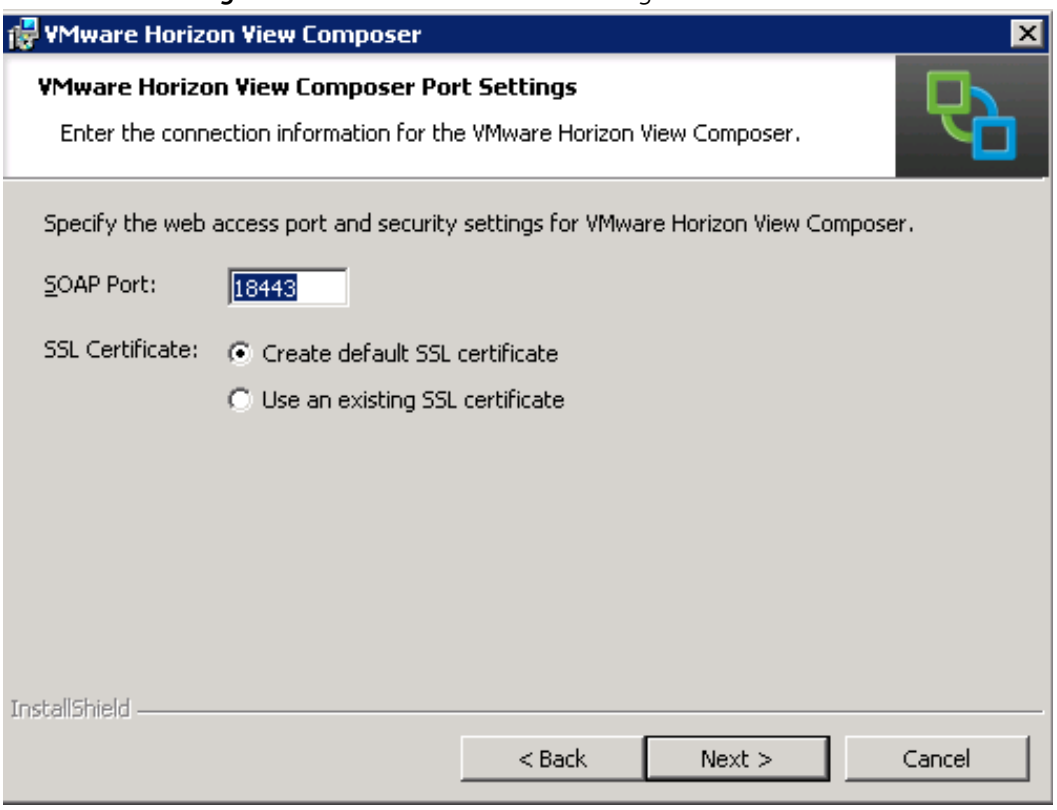

Figure 86 SOAP Port Settings

6. Click **Install**.
7. After the installation is completed, click **Finish**.

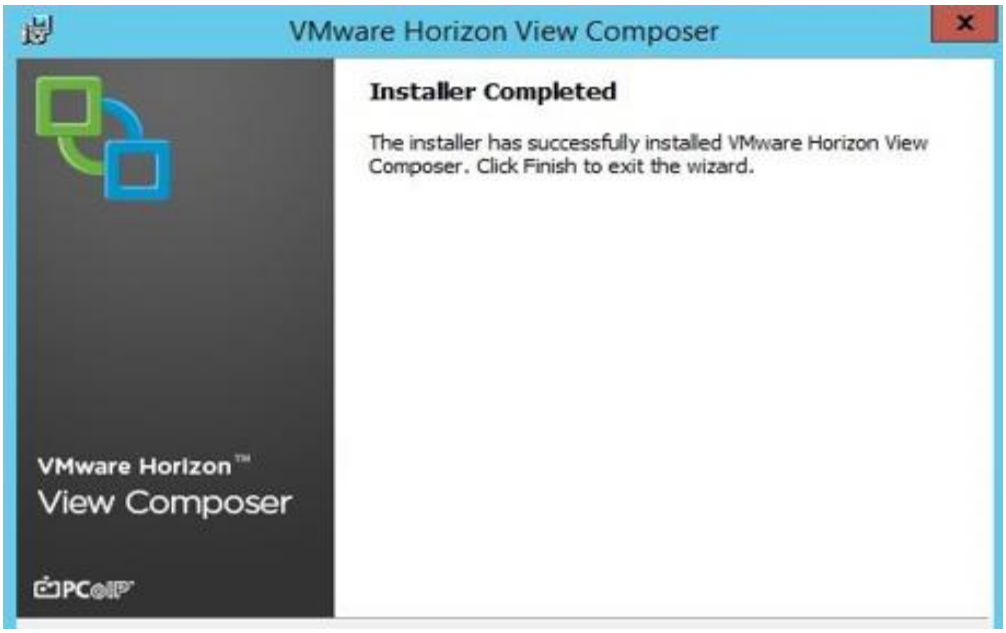

Figure 87 Successful Installation

8. To complete the View Composer installation, restart the server.

Note: Before restarting the server, make sure that it is not in use by you and any other individual.

7 Configuring a VMware View Connection Server

The events tab of the Dashboard requires a valid Database to be assigned. For this installation a blank database was created on a MS-SQL server called "ViewEvents" with "SA" as the owner.

1. After you log in to VMware Horizon View Administrator, the Dashboard page is displayed. To configure access to the Virtual Center, in the left pane, click **View Configuration**.

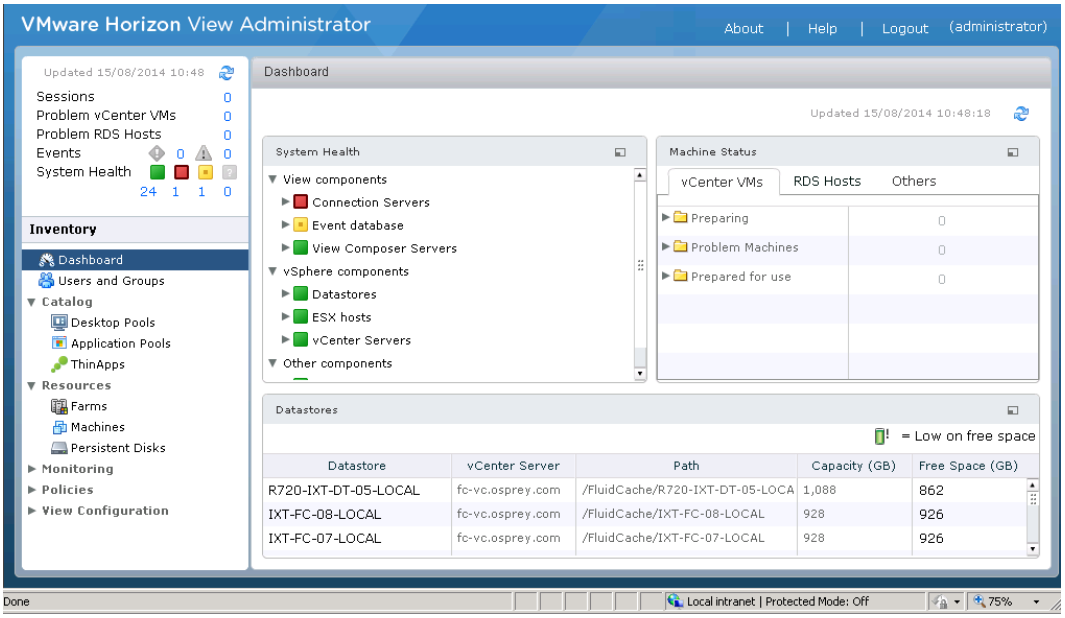

Figure 88 VMware View Connection Server Configuration

2. Select the Server's menu option and select **Add.**

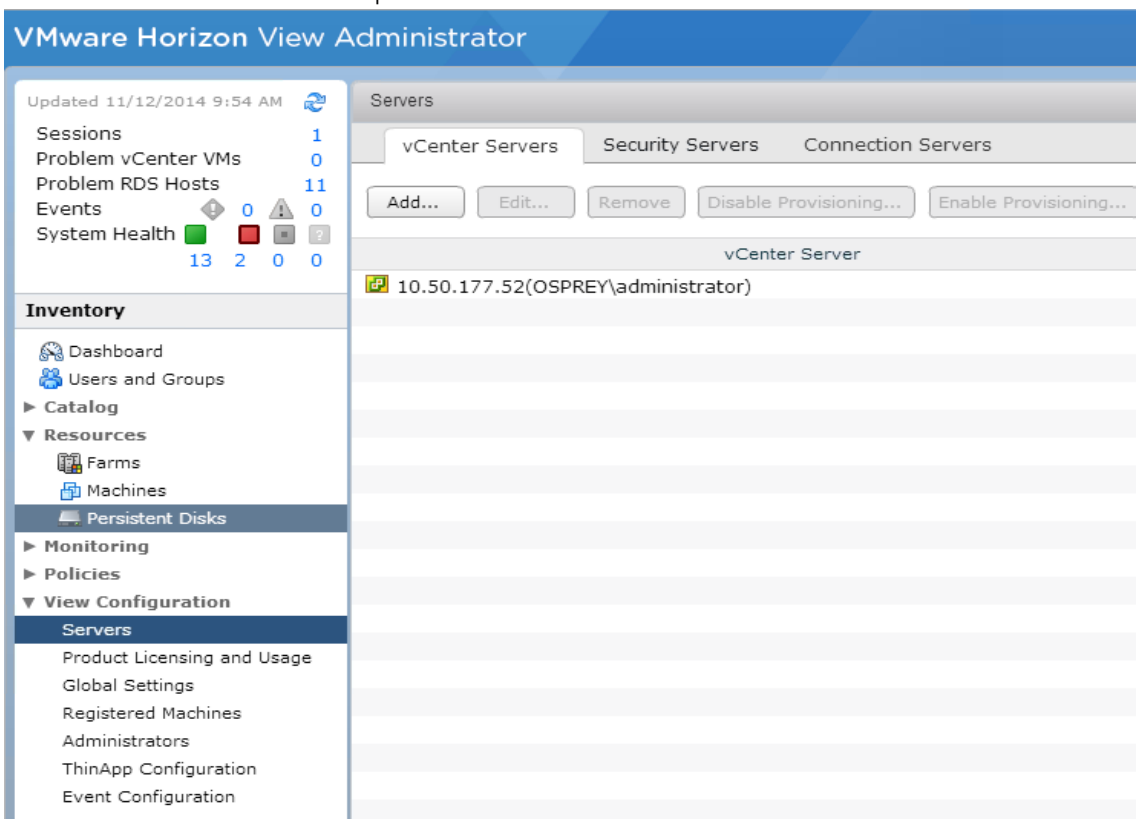

Figure 89 Add vCenter Servers

3. On the **Add vCenter Server—vCenter Server Information** page, type appropriate data in the boxes, and then click **Next**.

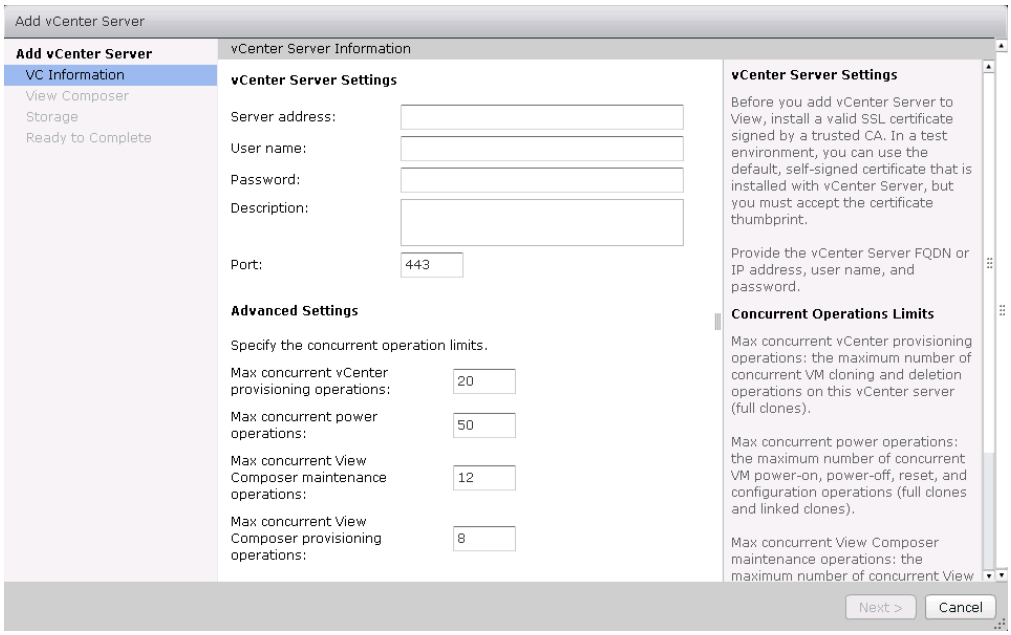

Figure 90 vCenter Server Information

Note: It is important to use the FQDN of the vCenter server.

4. If using a View Composer, on the **Add vCenter Server—View Composer** page, type or select appropriate information for installing the Composer. Click **Standalone View Composer Server** because a vCenter Appliance was used to manage the ESXi hosts and View desktop farm (Use the FQDN name of the server you have installed composer on).

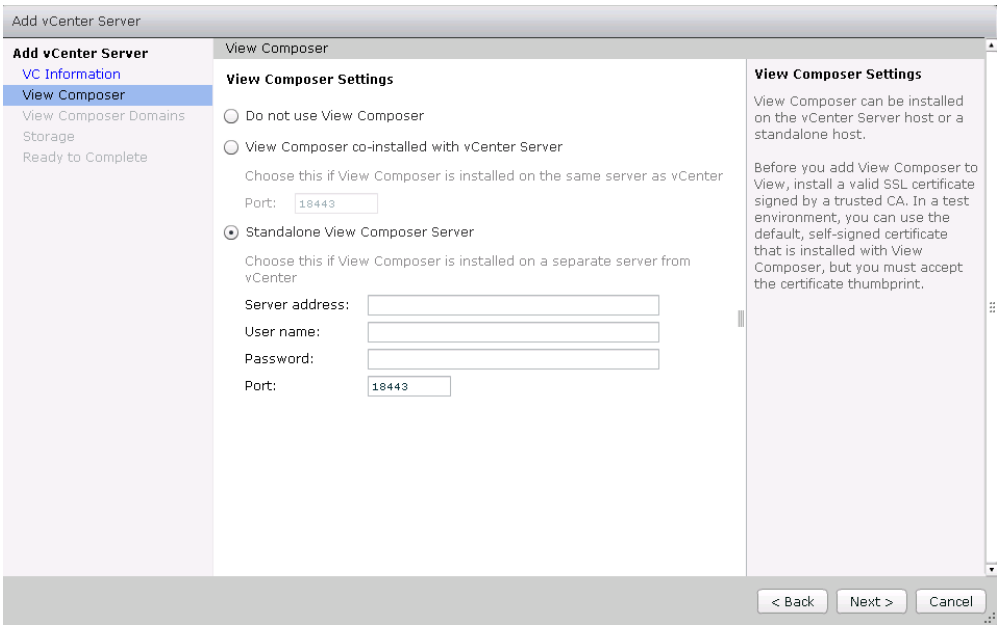

Figure 91 View Composer Settings

For more information about composer configuration and installation, see the earlier section for this guide.

5. Click **Add** and enter the AD Domain name that any linked clone dekstops will reside in and a domain user with domain administrator rights.

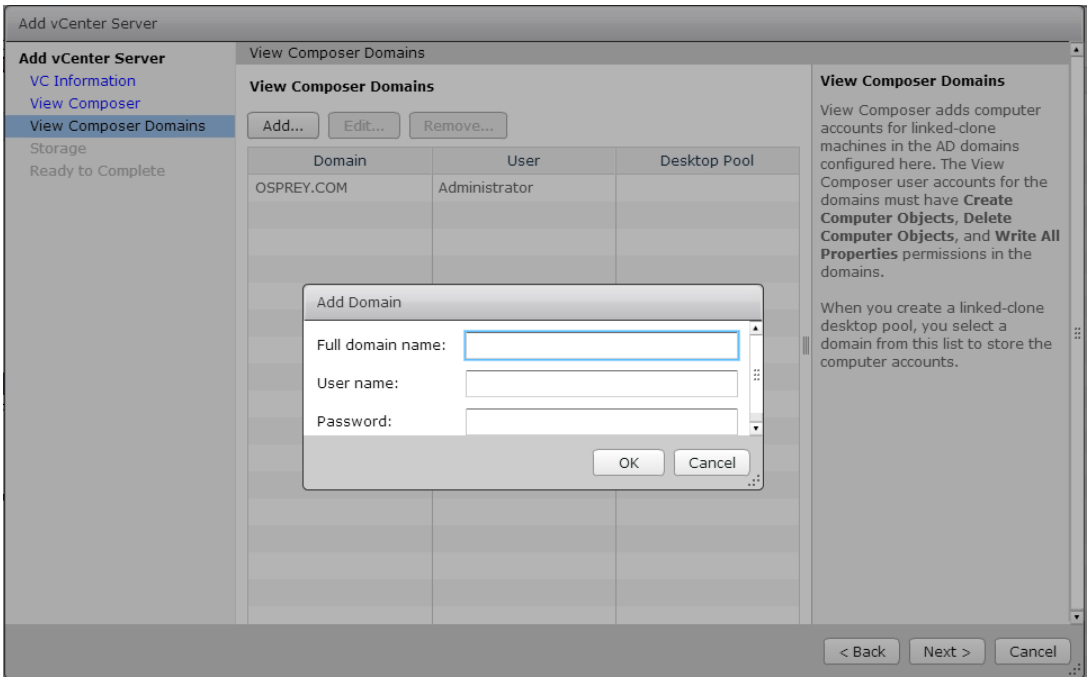

Figure 92 View Composer Domains

6. Select Storage options, if available, and then click **Next**.

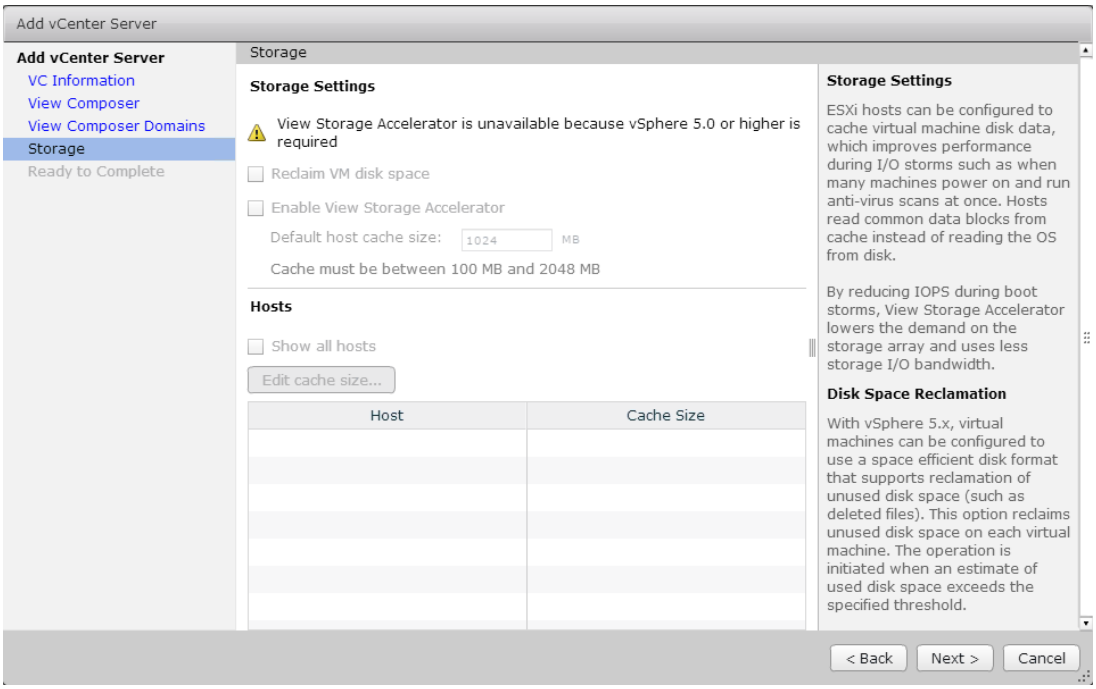

Figure 93 Storage Options

7. Click **Finish** to complete the Wizard.

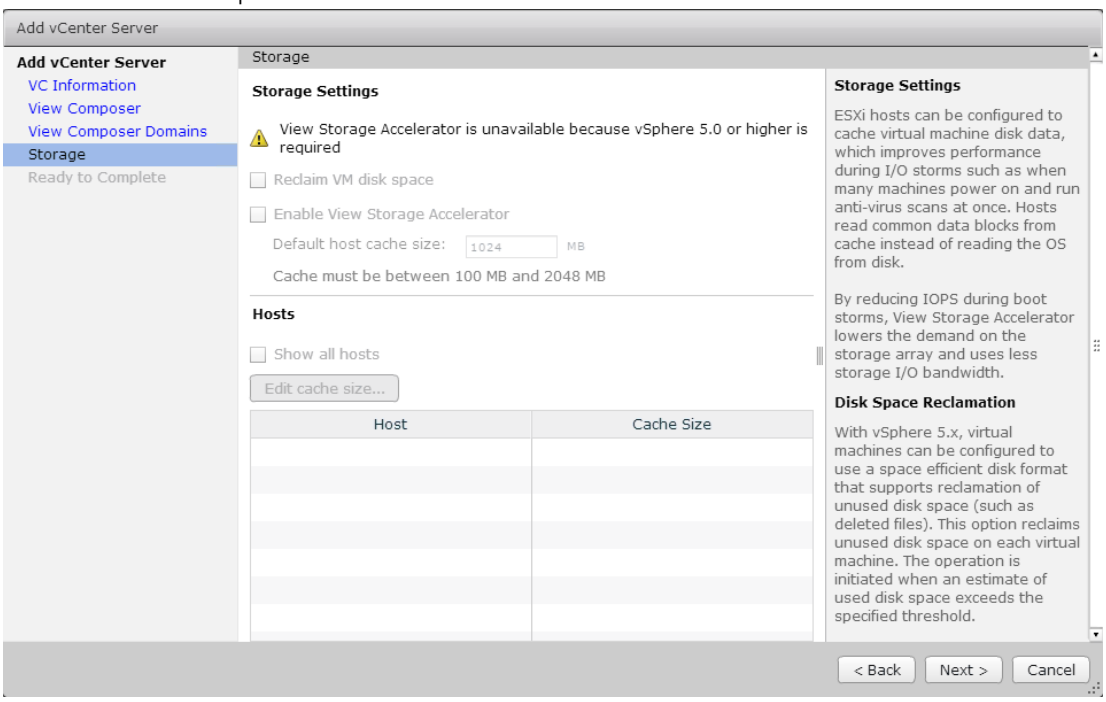

Figure 94 Complete Wizard

8. To provide your VMware View License, in the left pane, click **Product Licensing and Usage**, and then click **Edit License** in the working pane. Type your license key by following the on-screen instructions.

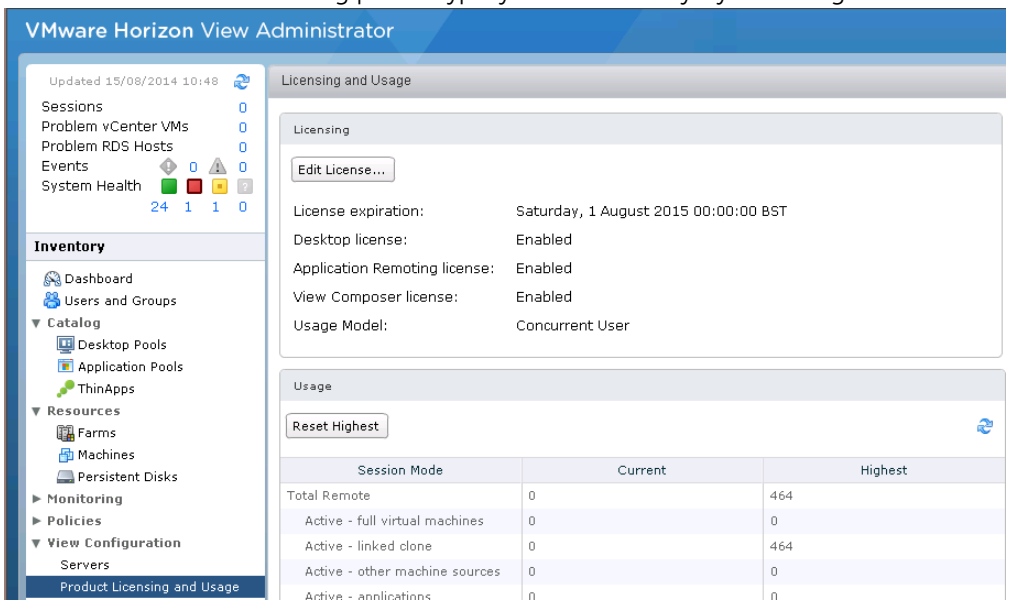

Figure 95 VMware View Administrator Licensing and Usage

9. In the left pane, click **Global Settings**, and then configure the global security settings as per your security policy requirements.

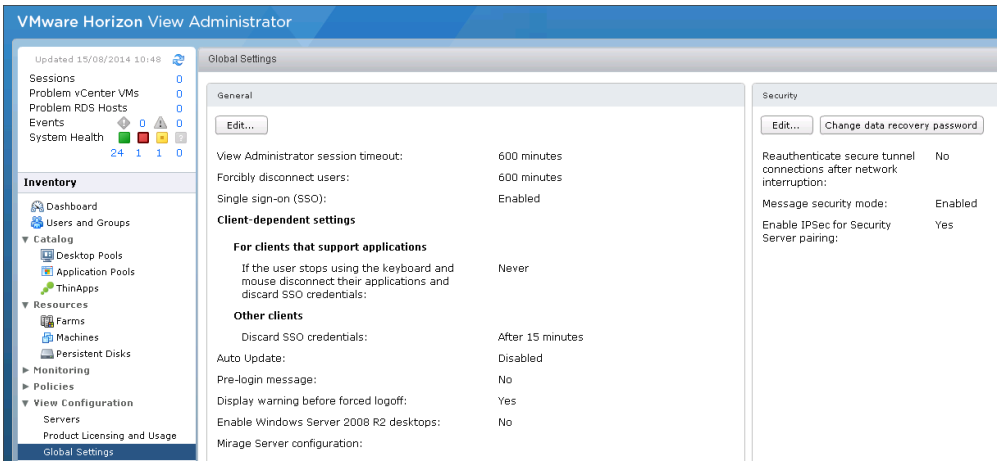

Figure 96 Global Settings

10. In the left pane, click the **Event Configuration** tab, and then click **Edit**. Make sure that you have created a View Event database on the vSphere SQL VM.

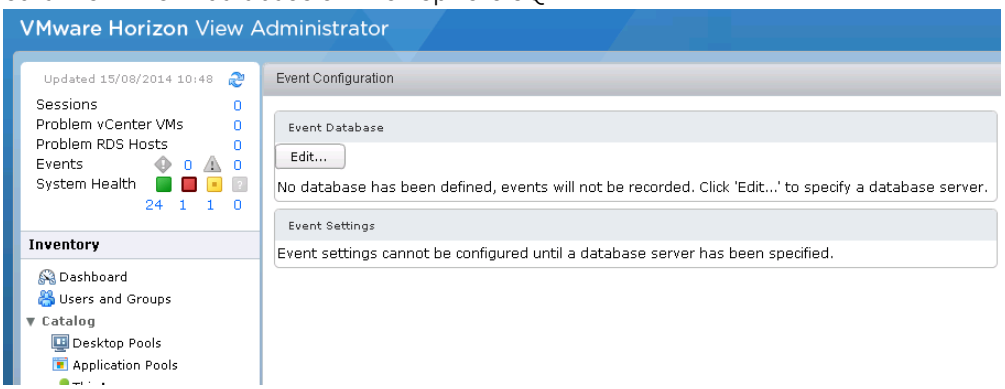

Figure 97 Editing Event Configuration

11. In the **Edit Event Database** dialog box, type or select appropriate information about the relevant database, and then click **OK** to complete the configuration process.

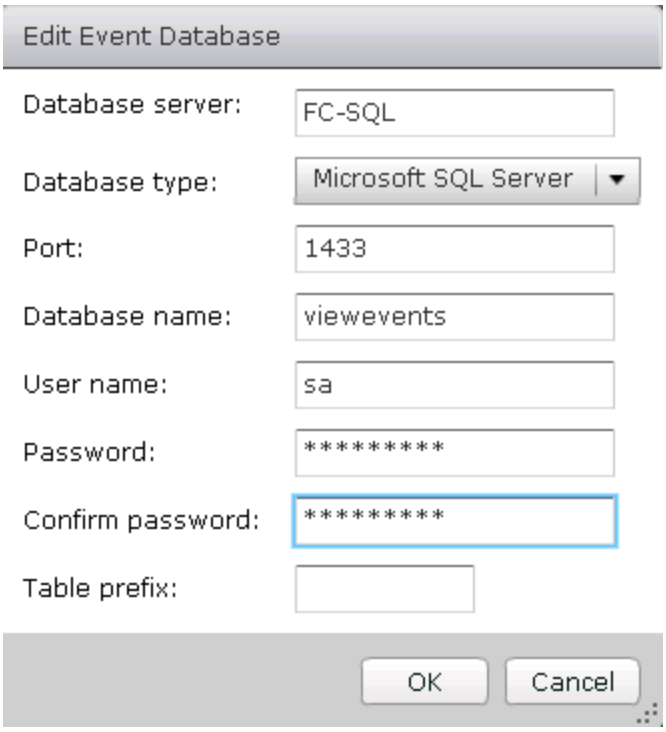

Figure 98 Configuring Event Database

8 Installing Remote Desktop Services Role on Windows Server 2012 R2

RDS hosts are server computers that have Windows Remote Desktop Services and View Agent installed. These servers host desktop sessions that users can access remotely. Within View, RDS desktop pools provide users with desktop sessions on RDS hosts. When you create an RDS desktop pool you must specify a farm. The RDS hosts in the farm provide the desktop sessions.

It is assumed you are familiar with installing Windows Server 2012. The screen shot here shows the last task in installation where you are prompted for a password. After you type credentials, the host is connected to the domain.

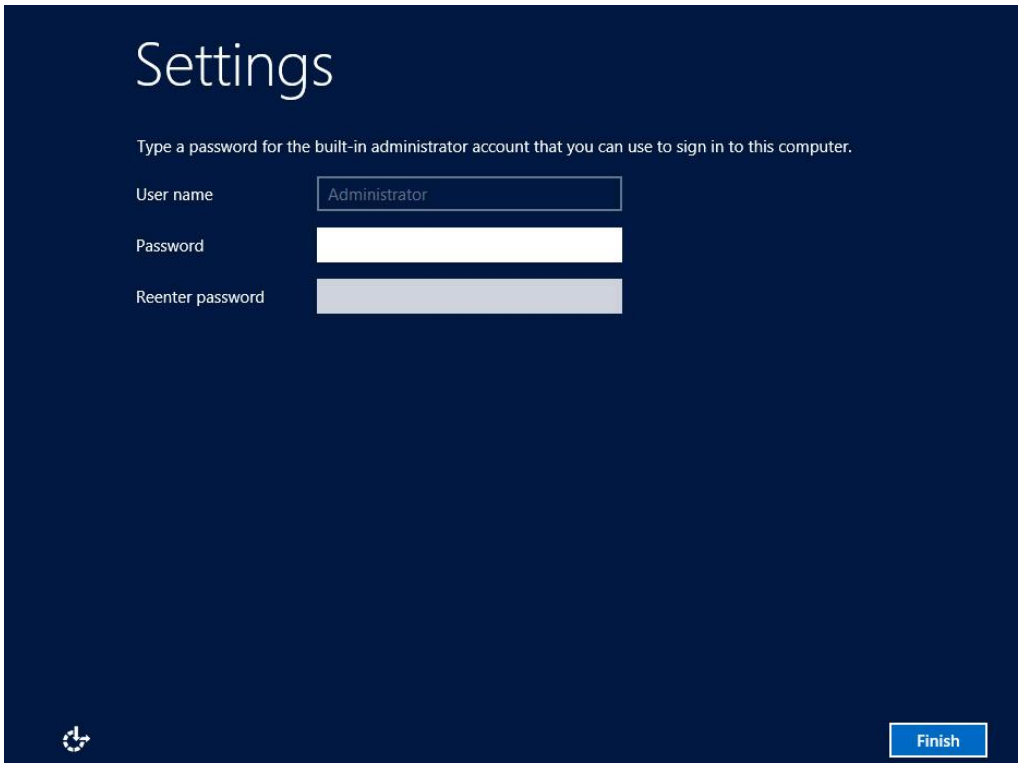

Figure 99 Logging in to Windows 2012 Server

1. Log in to the VM as a domain account with permissions to add the required roles. Start the Server Manager application. Click **Add roles and features** and click **Next**.

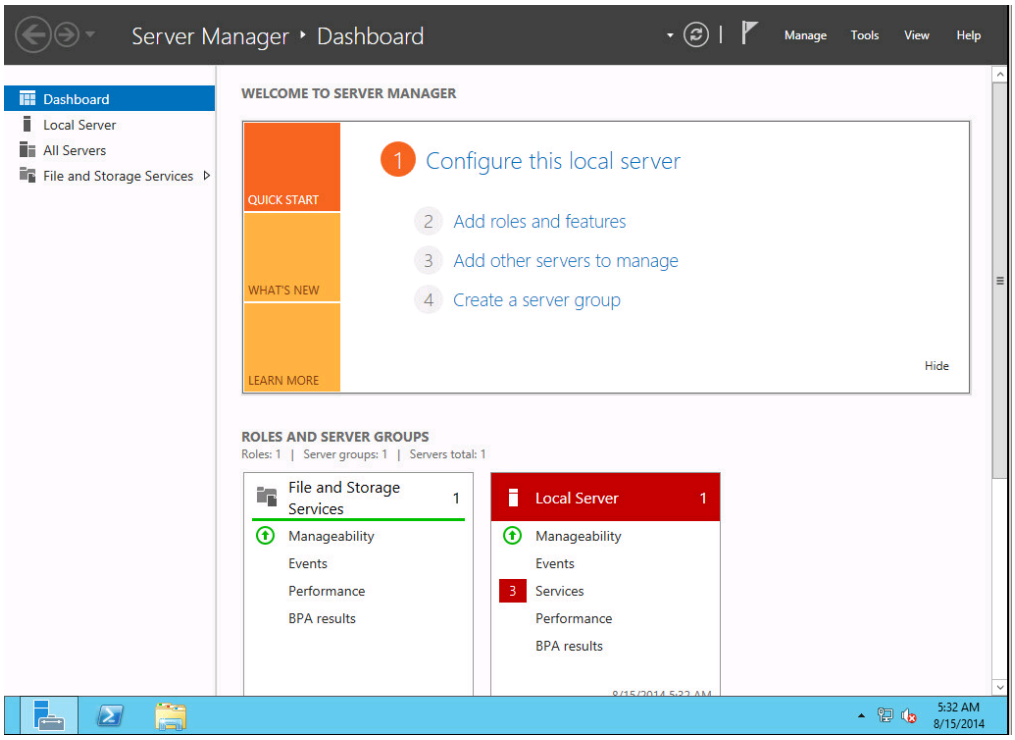

Figure 100 Configuring local server

2. Click **Next**.

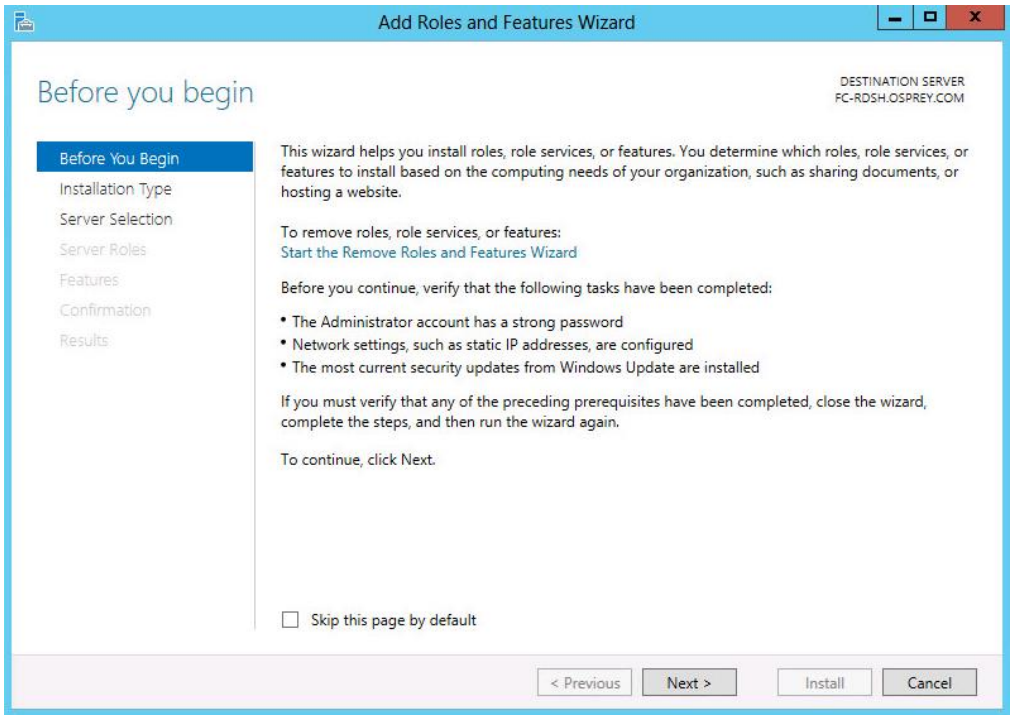

Figure 101 Roles and Features Wizard

3. Click **Remote Desktop Services installation** selected, and then click **Next**.

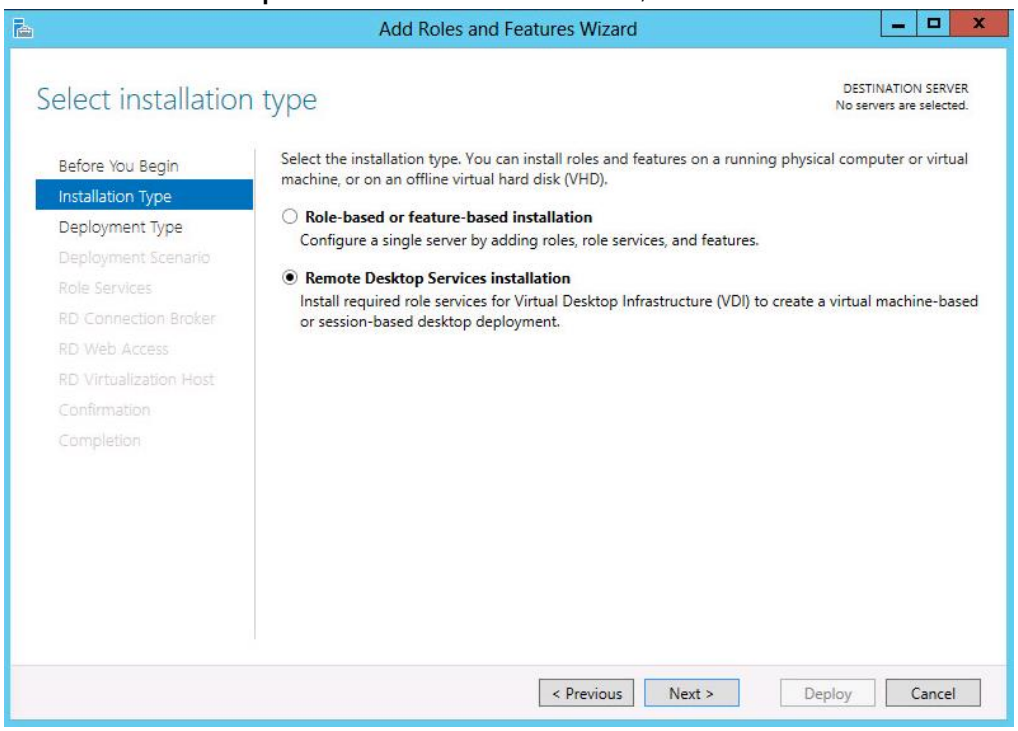

Figure 102 Remote Desktop Services installation

4. Click **Standard Deployment** and click **Next**.

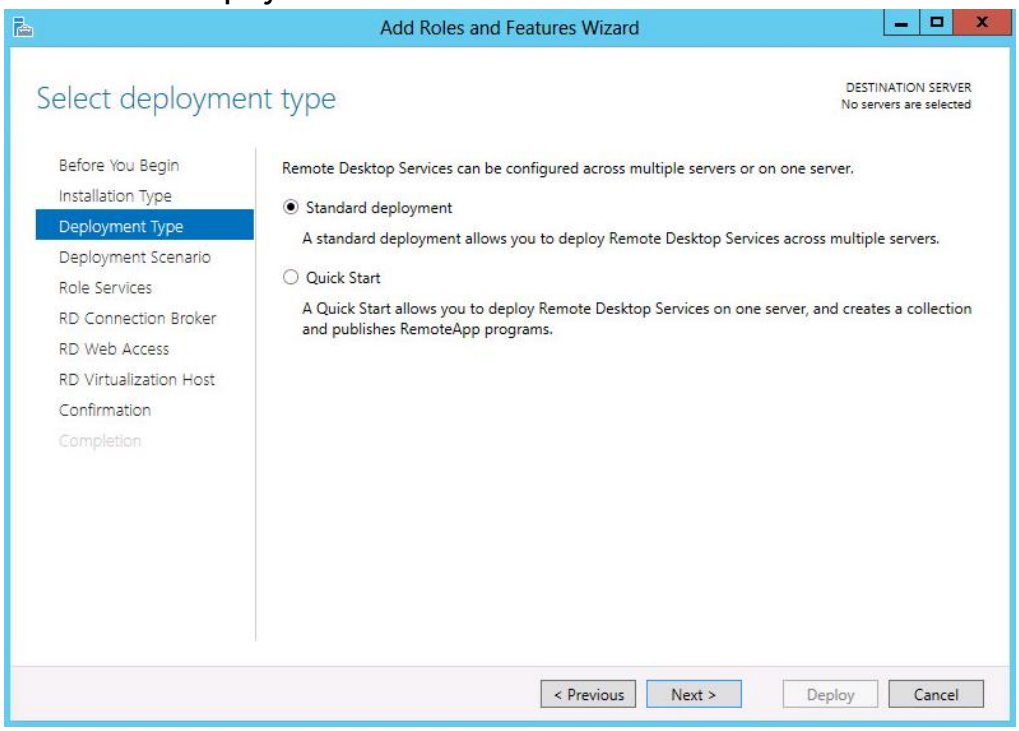

Figure 103 Standard Deployment

5. Because you have to install a session-based solution, click **Session-based desktop deployment**, and then click **Next**.

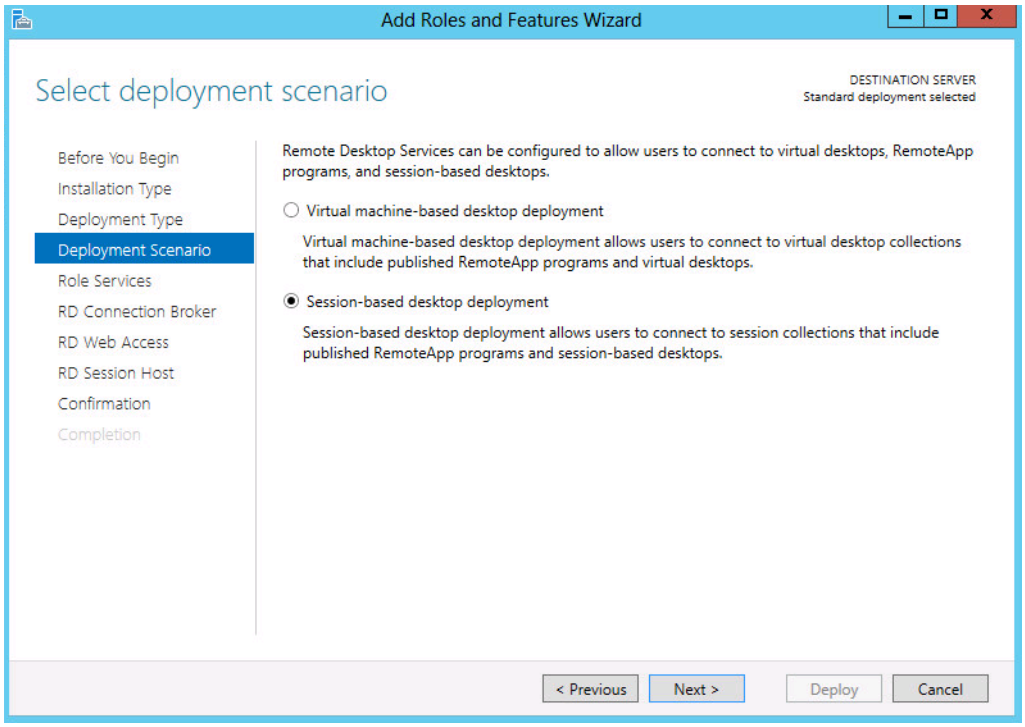

Figure 104 Session-Based Desktop Deployment

6. On the **Review role Services** page, click **Next**.

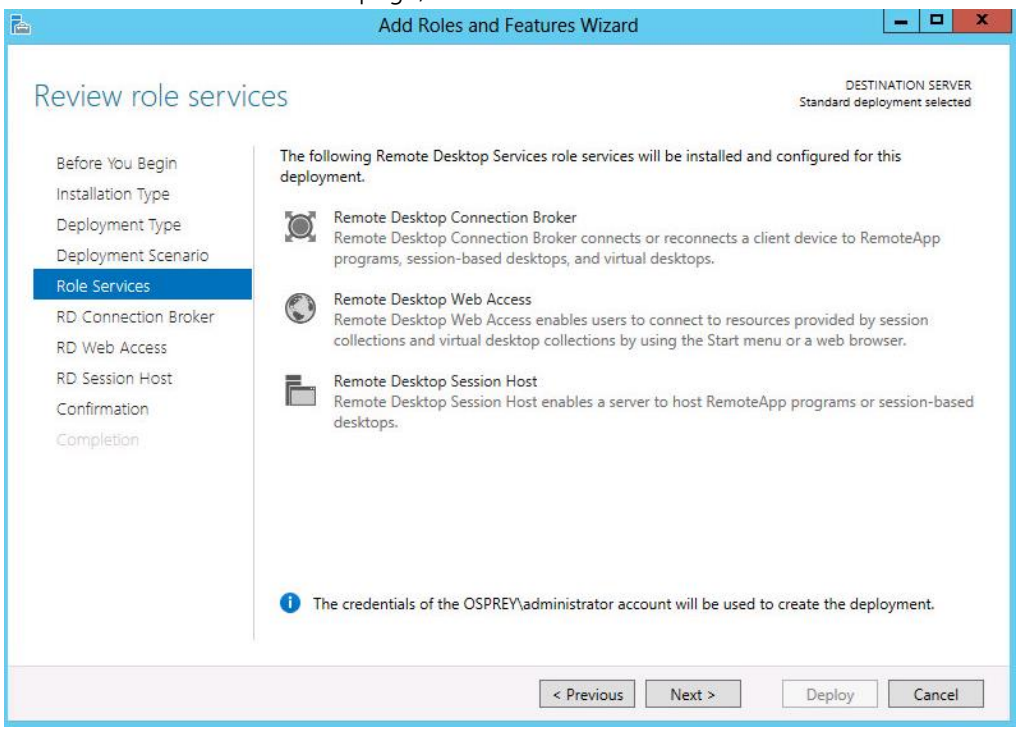

Figure 105 Review Role Services

7. Click **Next**.

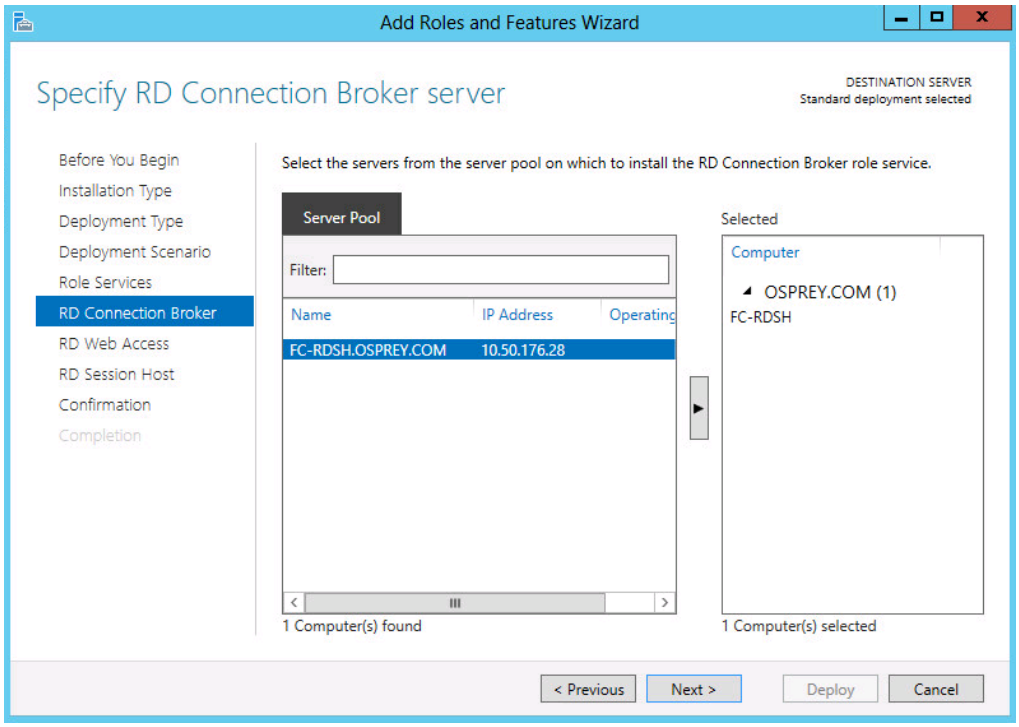

Figure 106 RD Connection Server

8. For this deployment, all services are being deployed on a single RDSH host. These roles can be broken out across multiple servers as this is best practice in an Enterprise environment. Click **Next**. Under the **Server Pool** section, select the local host or a dedicated web access server, and then click **Next**.

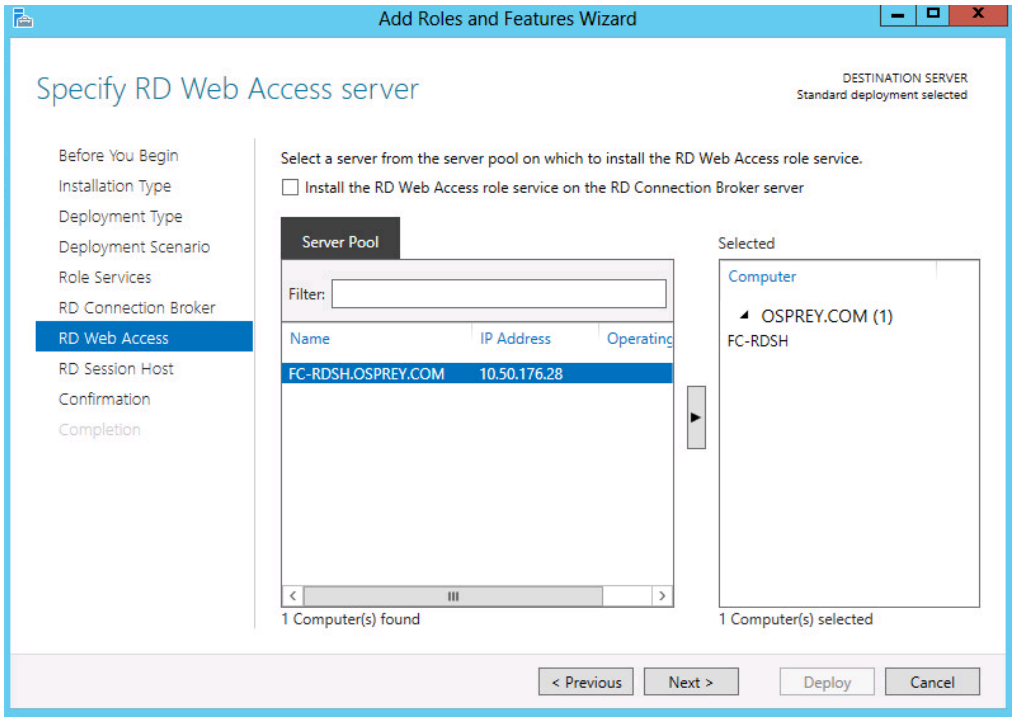

Figure 107 RD Web Access Server

9. Select the session host from the available servers and click **Next**.

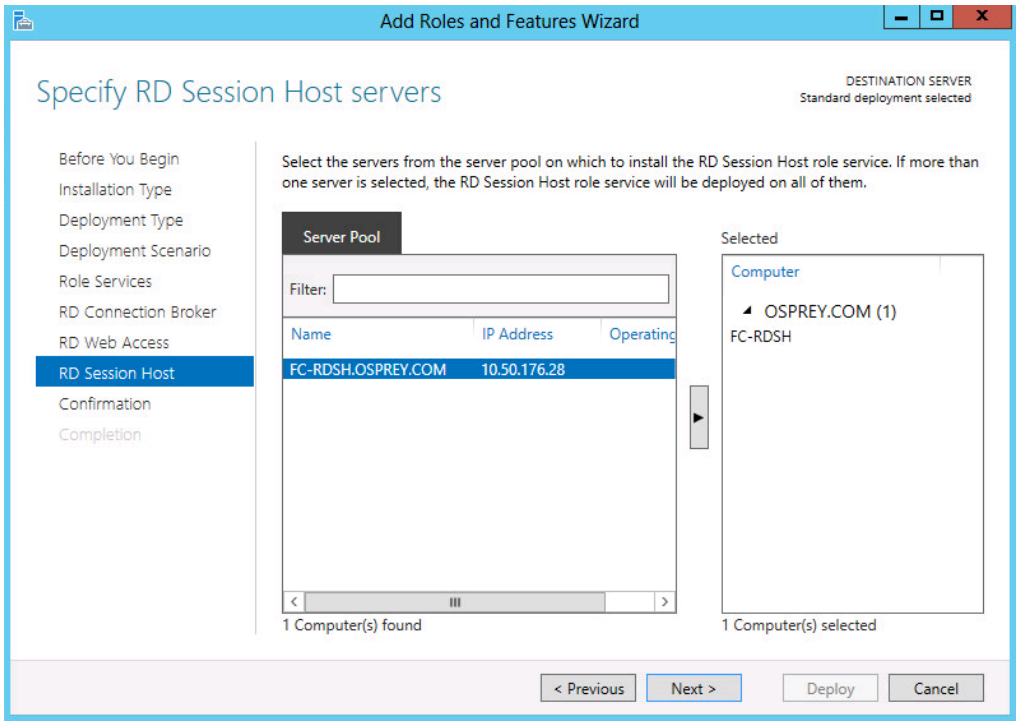

Figure 108 RD Session Host Server

10. Select the **Restart the destination server automatically if required** check box, and then click **Next**.

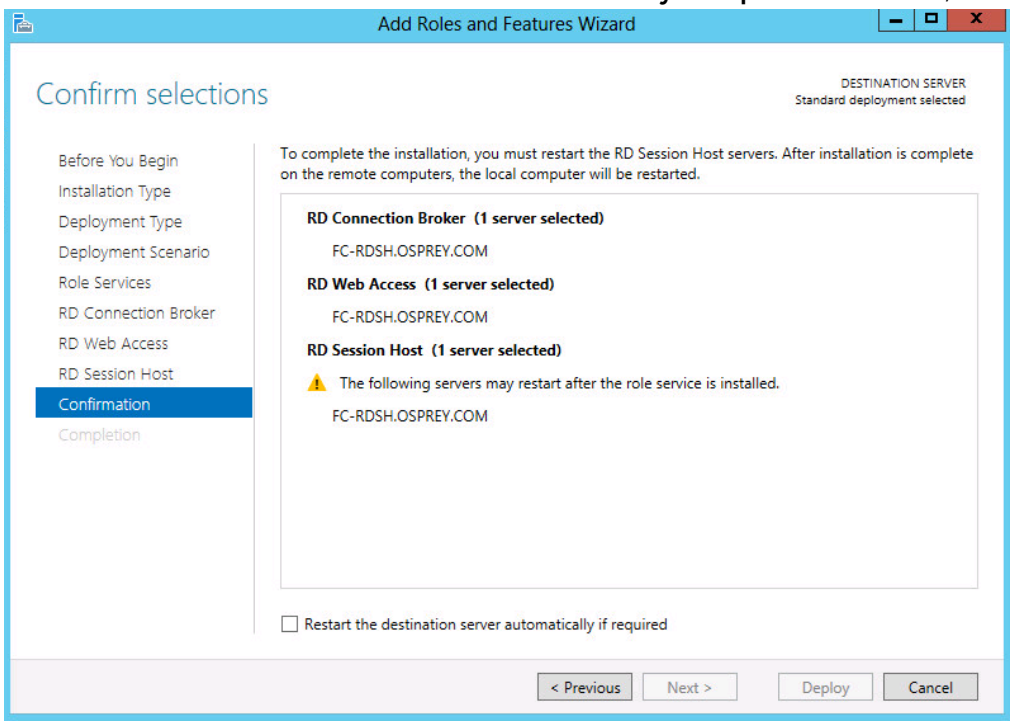

Figure 109 Confirm Selections

11. When the roles are installed and configured, the server is automatically restarted.

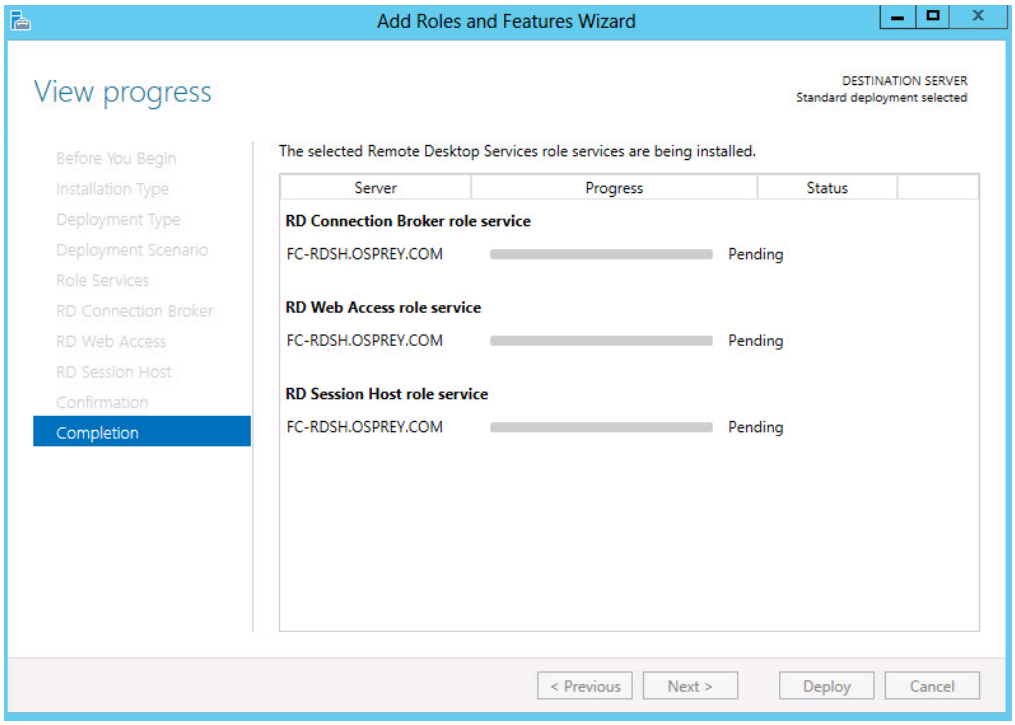

Figure 110 RDSH Role Install Progress

9 Adding RDSH Servers to a VMWare View Farm

Farms simplify the task of managing RDSH hosts, RDS desktops, and applications in an enterprise. RDSH session host servers must be added to a Farm before they can be used by a desktop pool to provide RDS desktop sessions to end users.

1. To creare an RDS Farm in VMware Horizon View Administrator, click the **Resources** menu, click **Farms**, and then click **Add**.

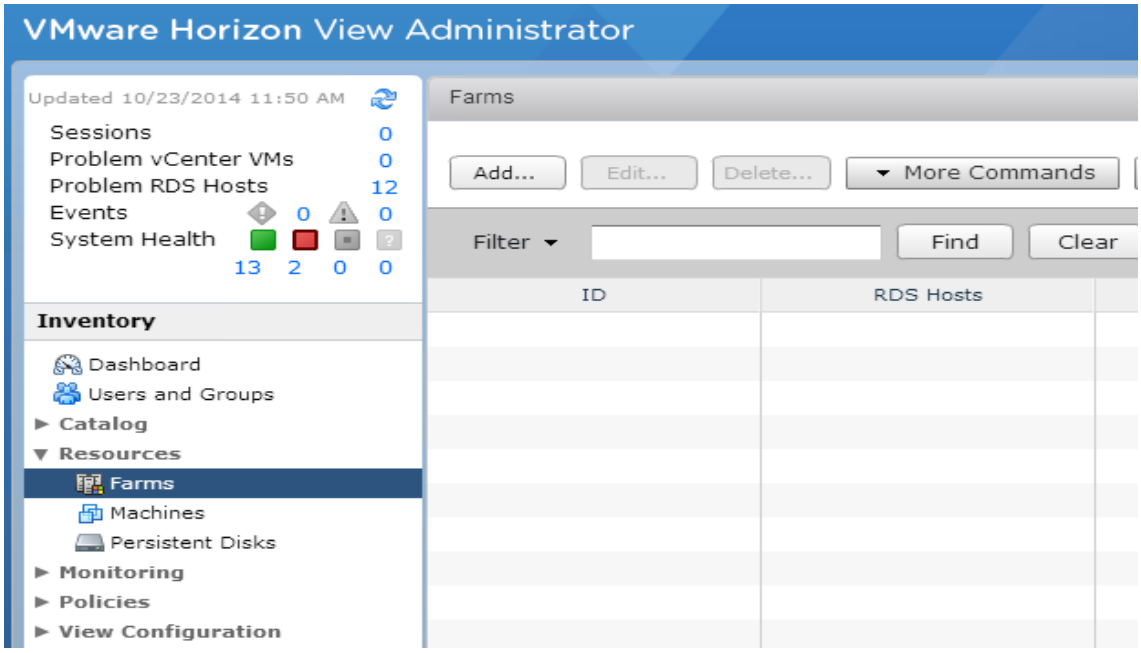

Figure 111 Add a Farm

2. Type the Farm an ID and description, select an Access Group, and then click **Next**.

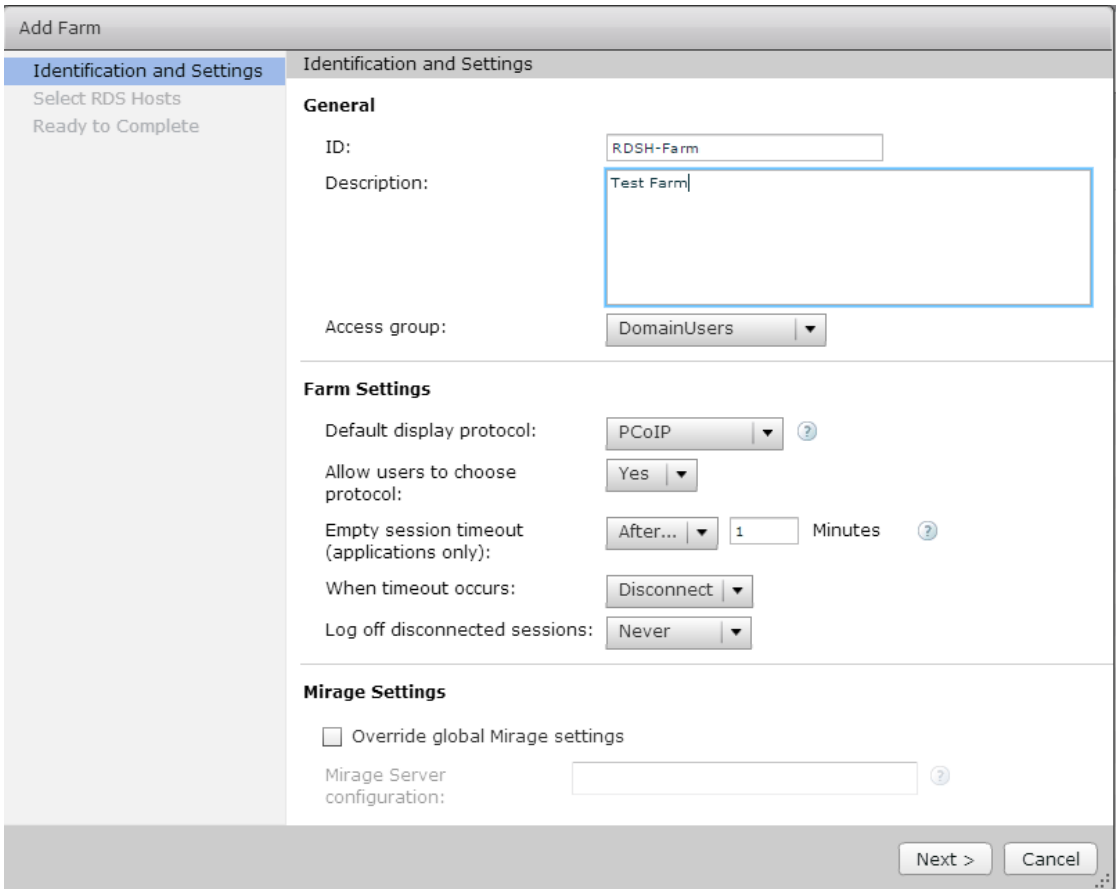

Figure 112 Farm Description

3. Select the RDS host servers to be included in the Farm and click **Next**.

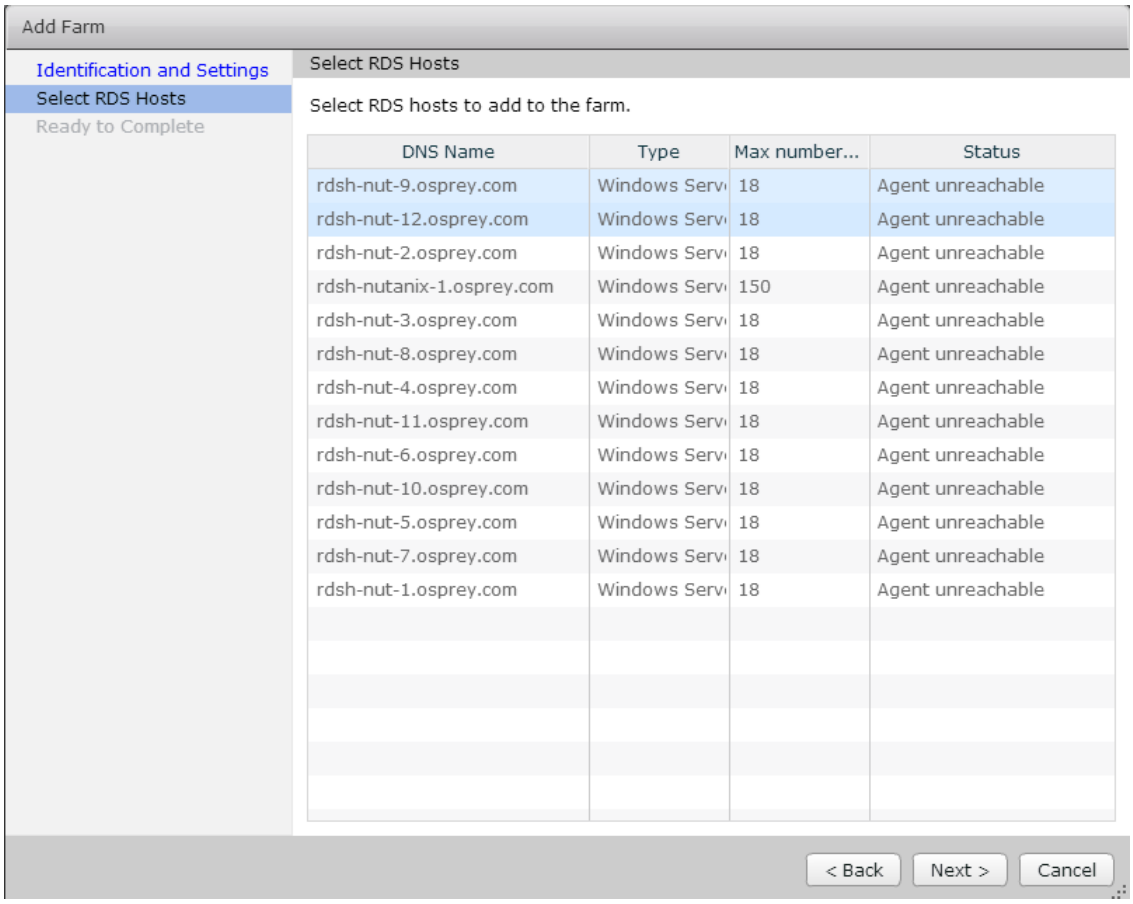

Figure 113 Select RDS Hosts

4. Review the settings and click **Finish**.

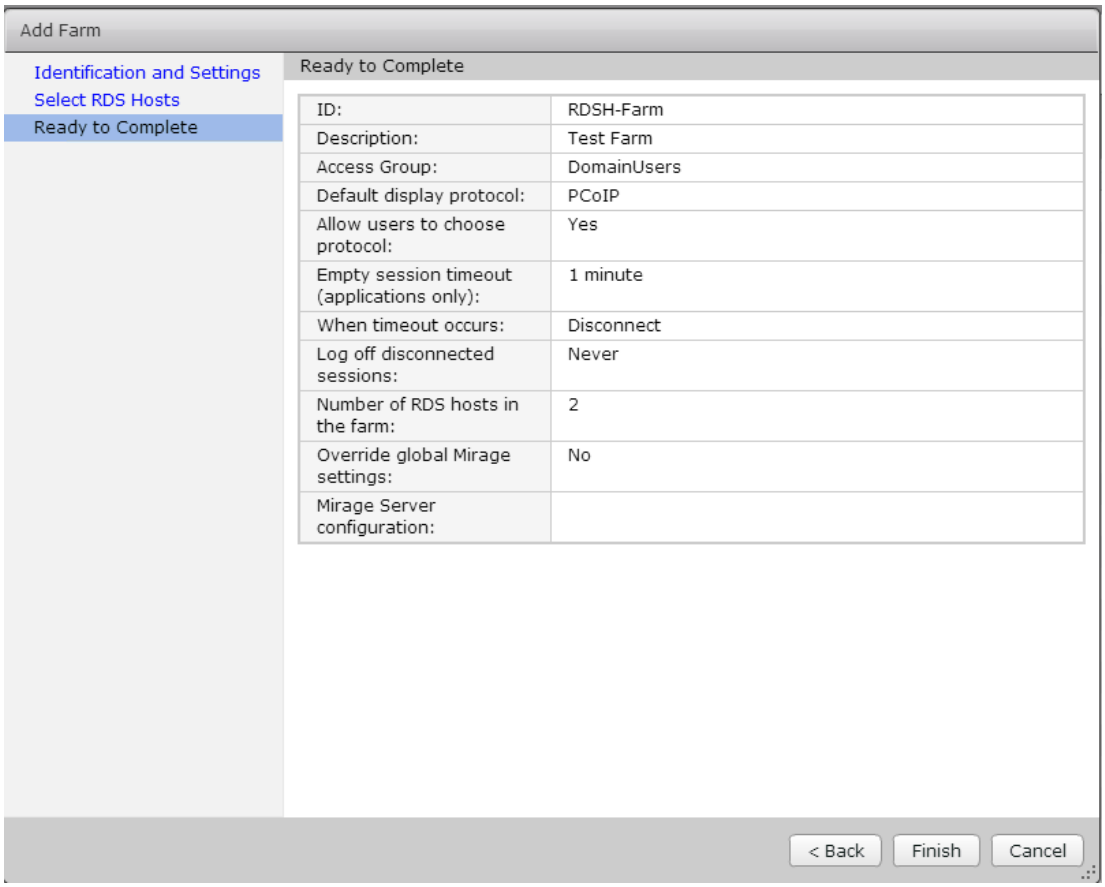

Figure 114 RDS Farm Settings Summary

5. The newly created Farm will show up in the list of RDS Farms and should be enabled automatically.

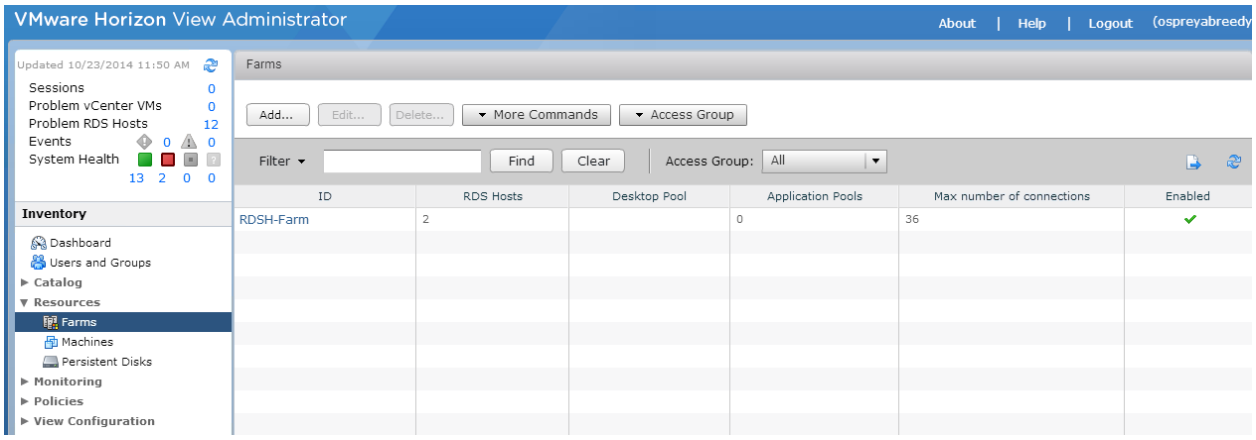

Figure 115 RDS Farm

Note: For users to connect to an RDS desktop session, an RDS Desktop Pool must be created using VMware Horizon View Administrator and an RDS Farm must be specified during the pool creation process.

10 Deploying Virtual Desktop Master Image

10.1 Creating Template VM

Suggested on the basis of user types used by Dell.

NOTE: Solution is provided on the basis of using full clones for persistence (Standard provisioning) and recommended disk format is VMDK. Ensure Master image is placed in the same container as the Desktop pool for faster deployment

Provision a Gold image by doing the following:

Machine Creation Services - Master Image

1. Create Base VM (specify Disk size, Network, Memory, and so on)
2. Install Windows 8.1.
3. Add VM to the Domain.
4. Activate Windows 8.1.
5. Install VMWare Tools.
6. Install the VMware View 6.0.0 agent using the 32bit or 64bit versions as required.
7. Install any required application software including antivirus software and activate if required.
8. Optimize Windows 8.1 using VMWare Optimization best practices.
9. When all optimization tasks have been completed, open an administrator command prompt and type `ipconfig /release` to release the IP address and shut down the VM.
10. If a pool of full virtual machine clones is being created; in the vSphere Client, right-click the VM and select **Template**, and then click **Convert to Template**. A VM must be in template form in order for VMware View to use the VM to create a pool of full clone desktops.

10.2 Optimizing Desktop OS

Ensure you use the VMWare desktop optimization script which can be downloaded from the VMWare website which can be used to optimize desktop settings for a VDI environment including disabling unnecessary services.

Windows 8.x Optimization

A new feature in Win 8.1 is Automatic Windows Maintenance, which is a feature of the dism tool that checks the system and application for update compatibility and file integrity. By default, the system scheduled task runs at 1 a.m. everyday, or any time after 10 min of idle time. When the system is functioning, the `tiworker.exe` process consumes 100 percent CPU on any recently booted desktop VMs, possibly overloading servers.

- The administrator accounts cannot change the services because the services (idle time check and automatic check) run as a SYSTEM. You must get SYSTEM rights to disable services.
- You can still run the checks manually even if the services are disabled. You must have psexec.exe (sysinternals) on the Master Image VM to fix this issue.
- The following are the three scheduled tasks that must be disabled on your desktop template.
    - `psexec \\SERVERNAME -s schtasks /change /tn "\Microsoft\Windows\TaskScheduler\Maintenance Configurator" /DISABLE`
    - `psexec \\SERVERNAME -s schtasks /change /tn "\Microsoft\Windows\TaskScheduler\Idle Maintenance" /DISABLE`
    - `psexec \\SERVERNAME -s schtasks /change /tn "\Microsoft\Windows\TaskScheduler\Regular Maintenance" /DISABLE`
- Turn off the Master Image and take a snapshot for reference.