Dell EVO:RAIL Horizon Deployment Guide Version 1.0

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your computer.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Contents

VMware Horizon Installation

This section lists the tasks required to install VMware Horizon on top of EVO:RAIL. The tasks listed above must be completed first so that a vCenter cluster is created successfully. The following tasks are based on the assumptions that all the required VMs such as View Connection Server, View Composer and others are created and running on the vCenter cluster created earlier.

## View Connection Server

Pre-requisites

The following activities must be performed prior to completing the View Connection Manager Installation and Setup:

- Configure a static IP Address for the View Connection Server.
- Obtain a valid license key for View Connection Server.
- Join the View Connection Server host to an Active Directory domain. The View Connection Server supports Active Directory on Windows 2003 and 2008.
- Authorization of a View Administrators account will be required during the installation, pre-create, and prepare to specify either a local administrators group or a domain user or group account.
- Authorize a user in the vCenter Server in order to add vCenter Server to View Manager.
- In vSphere Client, click **Home** → **Roles** → **Add Role**, type a role name such as View Manager Administrator, and select appropriate privileges for the role.
- Log in by using a domain user account with Administrator privileges on the system, start the View Connection Server installation program, double-click the installer file, and then proceed with the steps here for installation.

Installation steps

1. Start View Connection Server installation media and click **Next**.
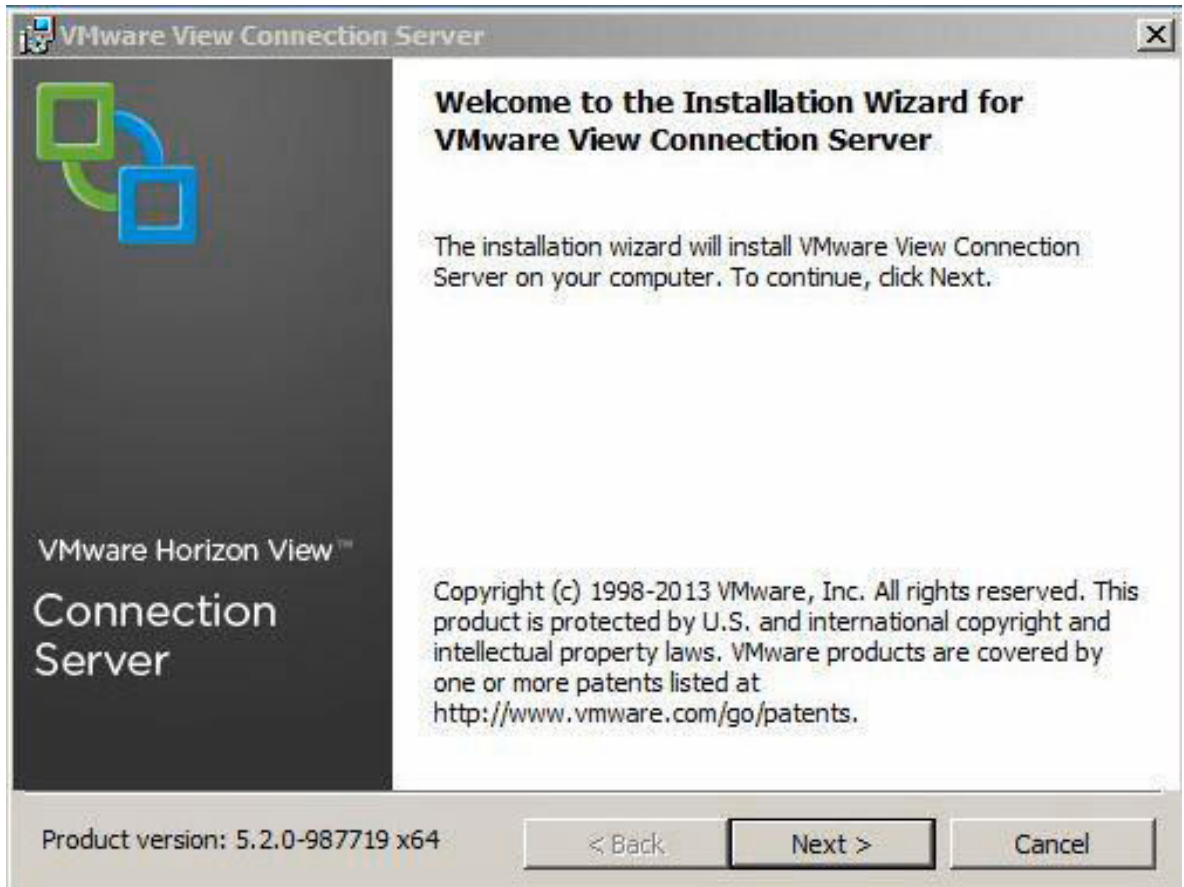
2. Accept the VMware EULA and click **Next**.

3. Accept the default installation folder or select a custom folder for installation and click **Next**.
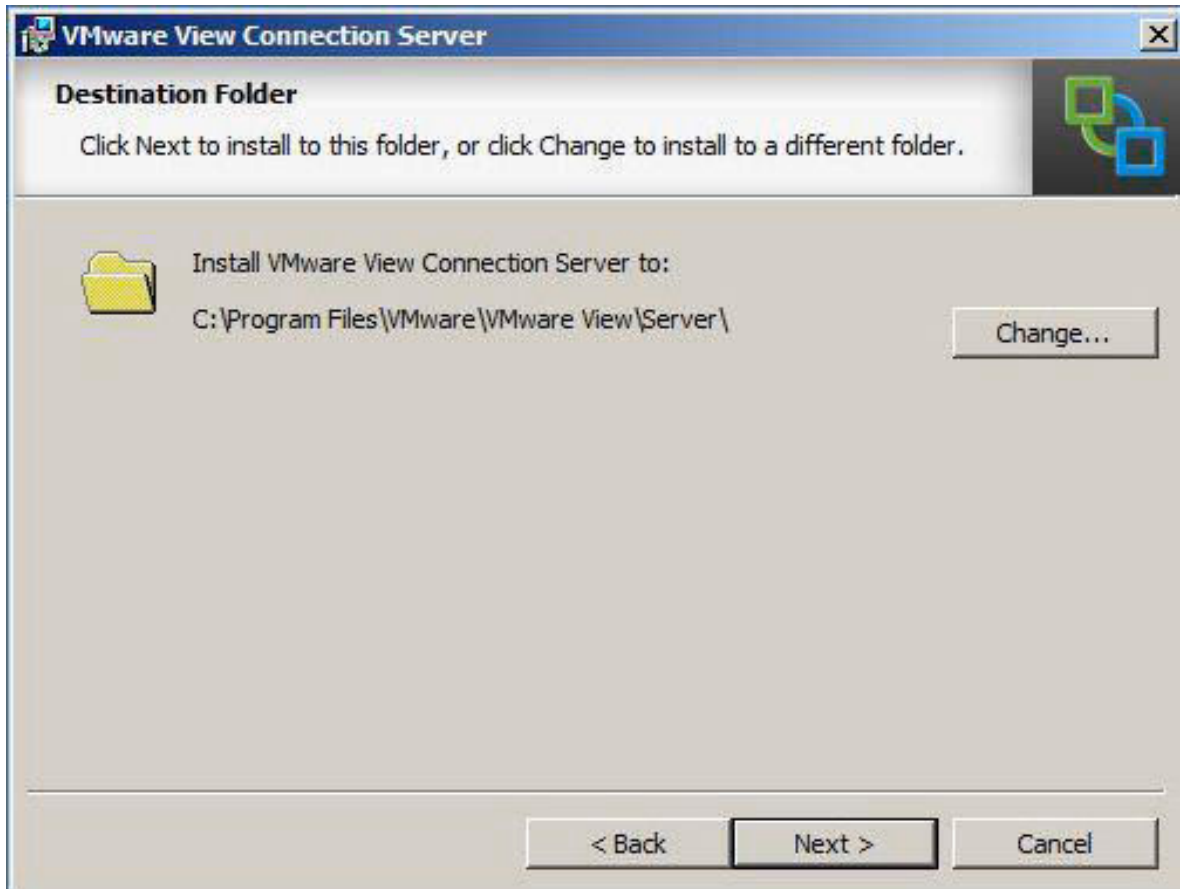
4. Select **View Standard Server** for the installation type and click **Next**.
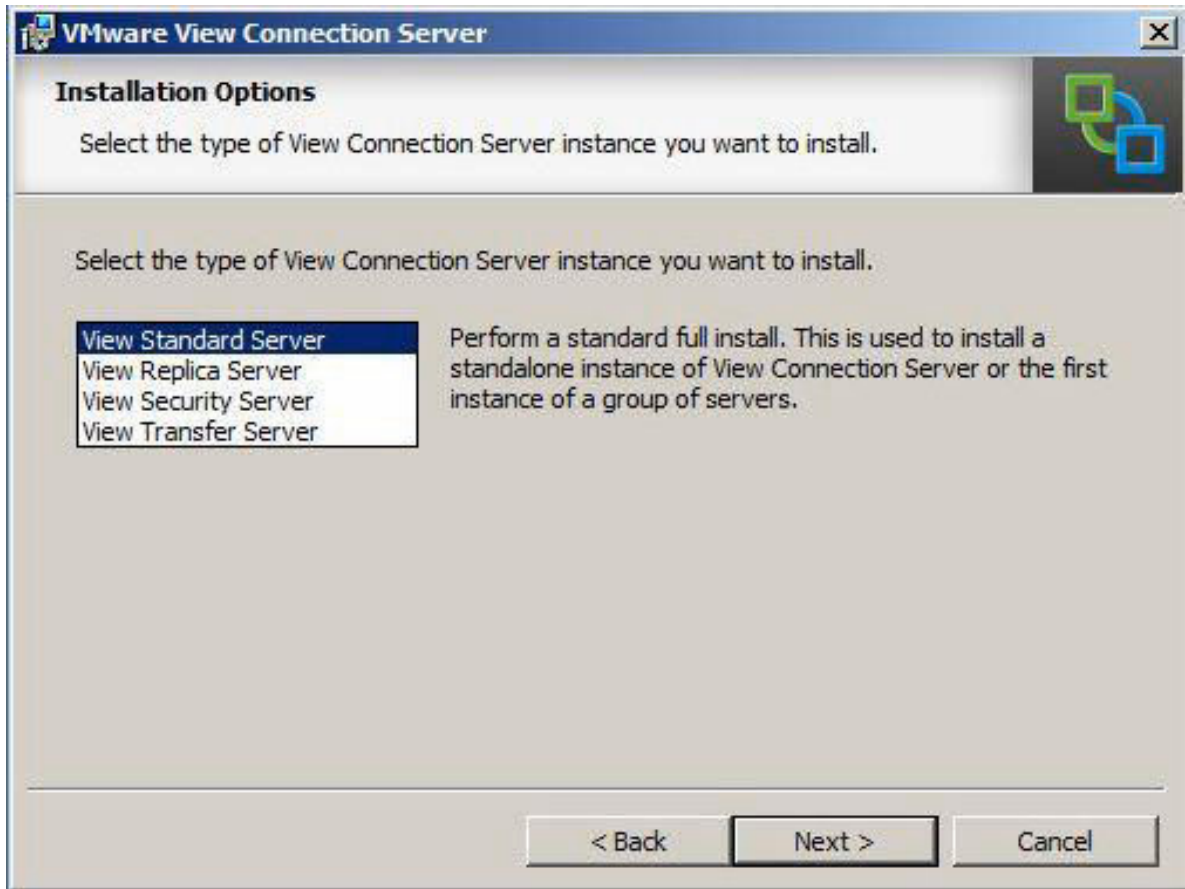
5. Type a data recovery password and, optionally, a password reminder, and the click **Next**.

Figure 1.

6. To configure the Windows Firewall service, select **Configure Windows Firewall automatically** and click **Next**.

VMware View Connection Server

Firewall Configuration
Automatically configure the Windows Firewall to allow incoming TCP protocol connections.

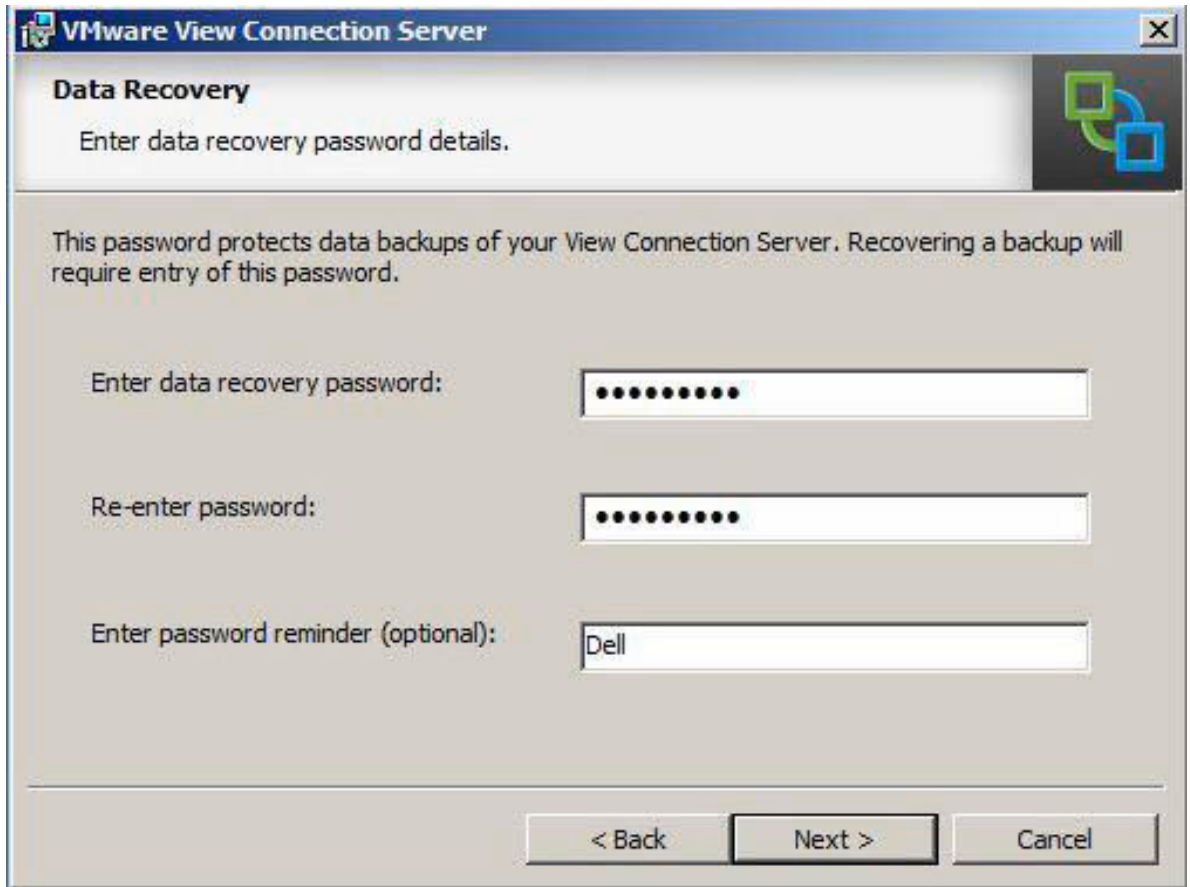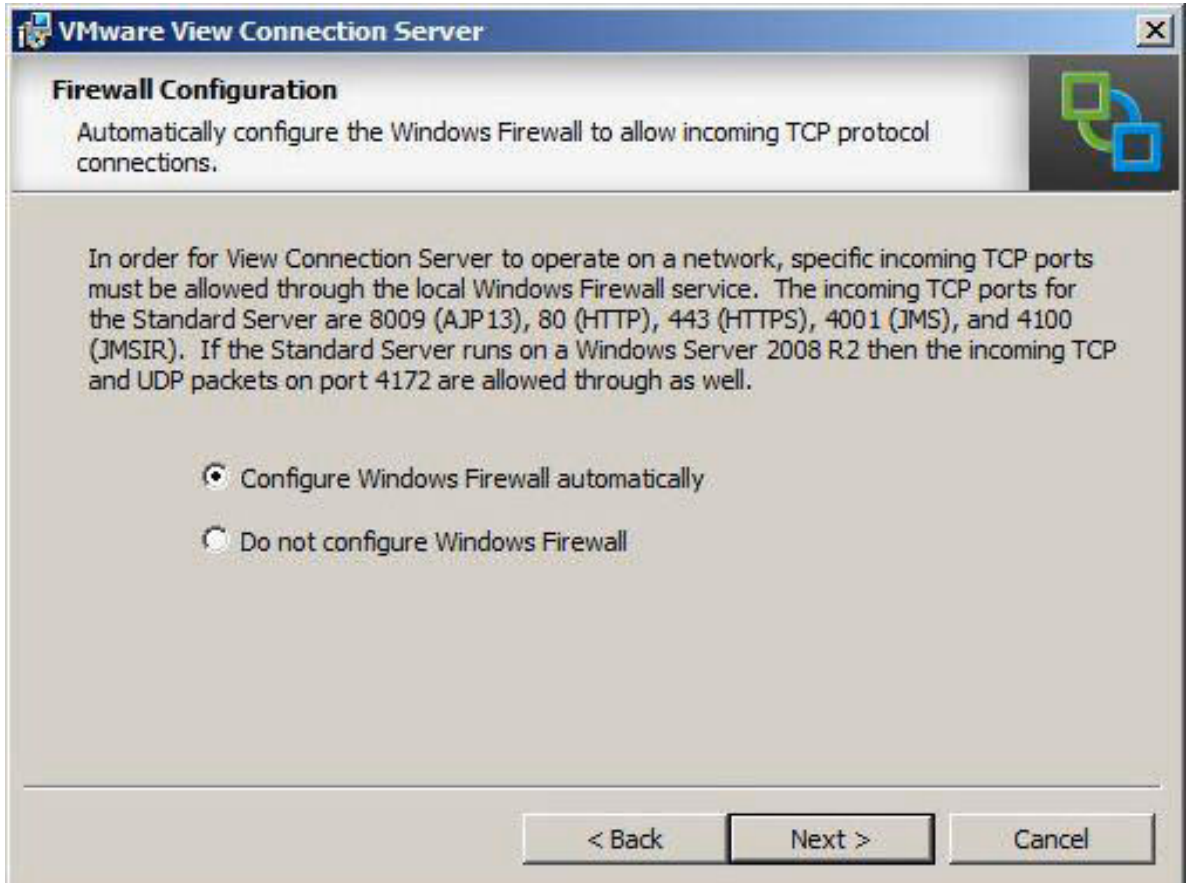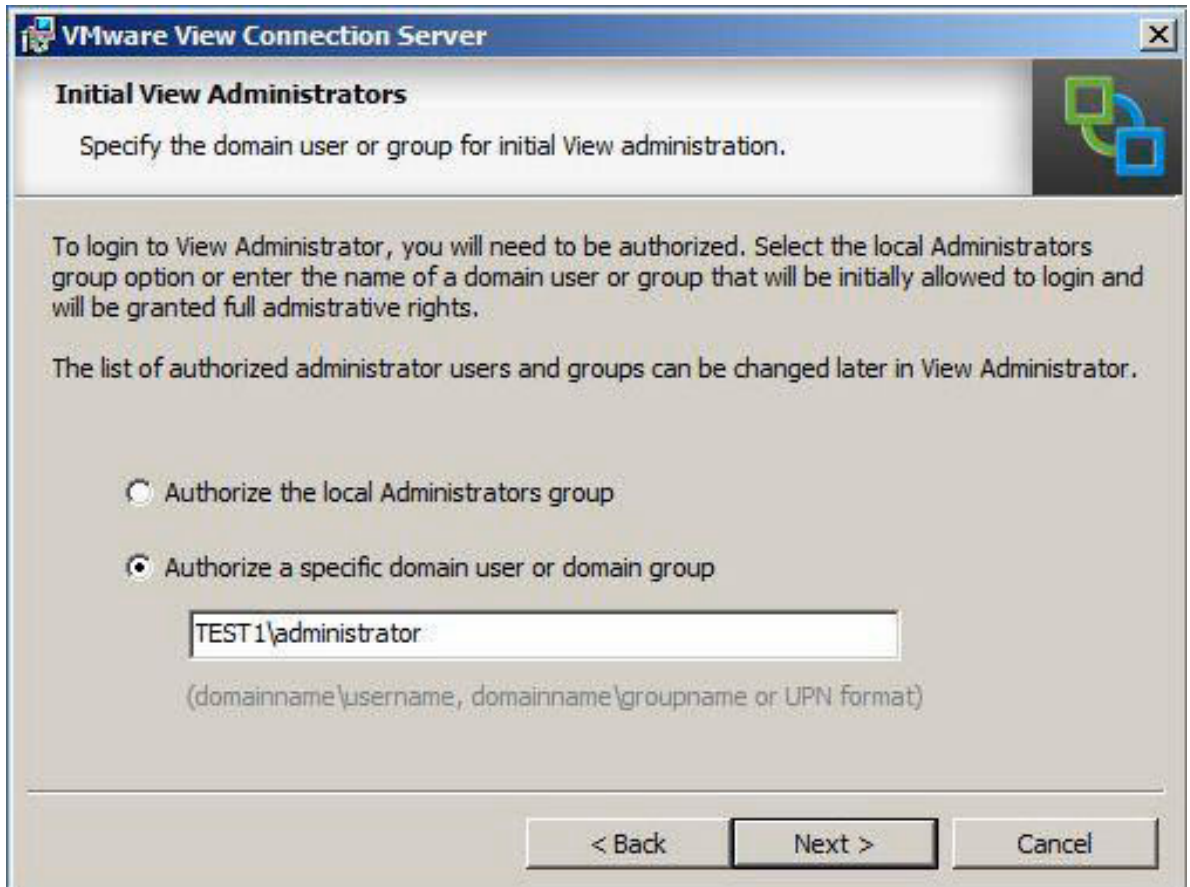In order for View Connection Server to operate on a network, specific incoming TCP ports must be allowed through the local Windows Firewall service. The incoming TCP ports for the Standard Server are 8009 (AJP13), 80 (HTTP), 443 (HTTPS), 4001 (JMS), and 4100 (JMSIR). If the Standard Server runs on a Windows Server 2008 R2 then the incoming TCP and UDP packets on port 4172 are allowed through as well.

◉ Configure Windows Firewall automatically

○ Do not configure Windows Firewall

[< Back] [Next >] [Cancel]

7. Authorize a View Administrator account to grant access to the configuration console, enter the Domain Account or Group created during the prerequisite process and click **Next**.

VMware View Connection Server

Initial View Administrators

Specify the domain user or group for initial View administration.

To login to View Administrator, you will need to be authorized. Select the local Administrators group option or enter the name of a domain user or group that will be initially allowed to login and will be granted full admistrative rights.

The list of authorized administrator users and groups can be changed later in View Administrator.

○ Authorize the local Administrators group

⦿ Authorize a specific domain user or domain group

TEST1\administrator

(domainname\username, domainname\groupname or UPN format)

[< Back] [Next >] [Cancel]

8. Optional step. Click **Next**.
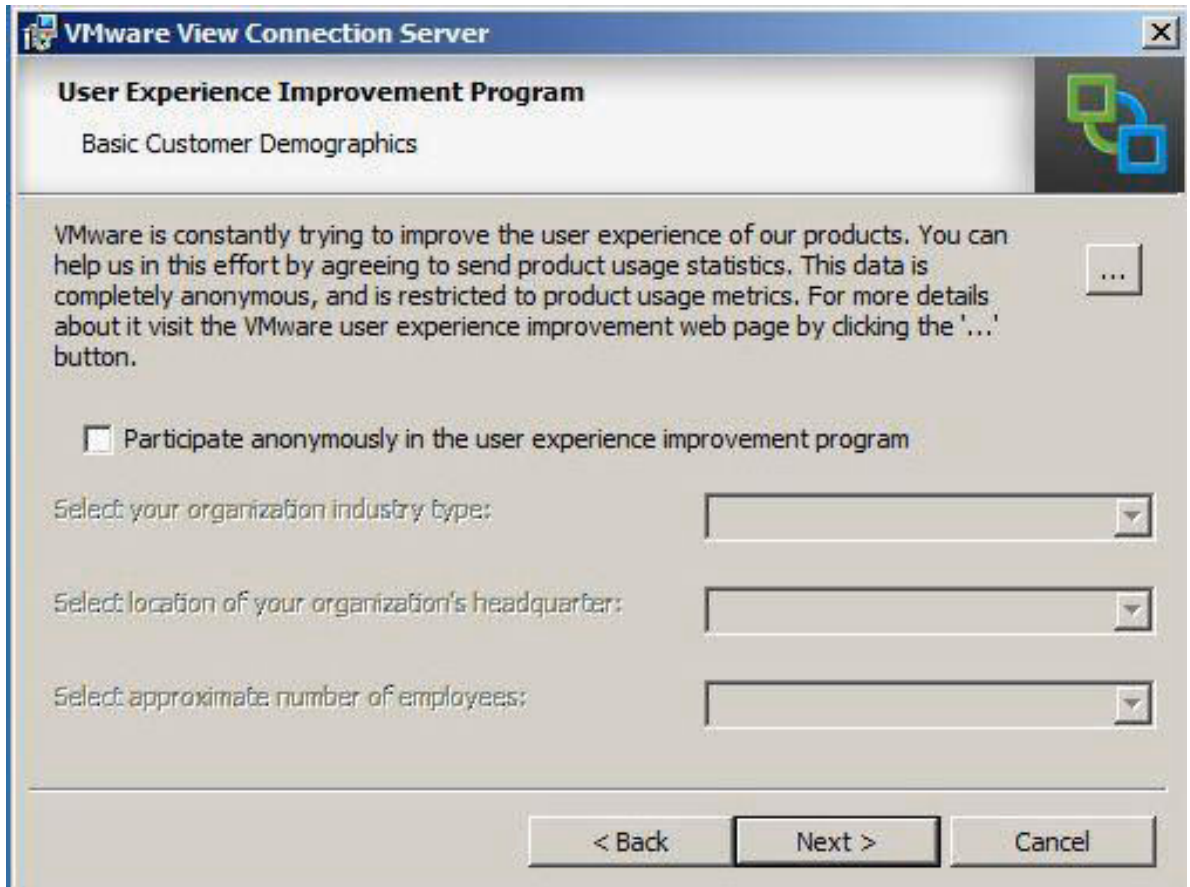
9. The installation is ready to start. Click **Install**.
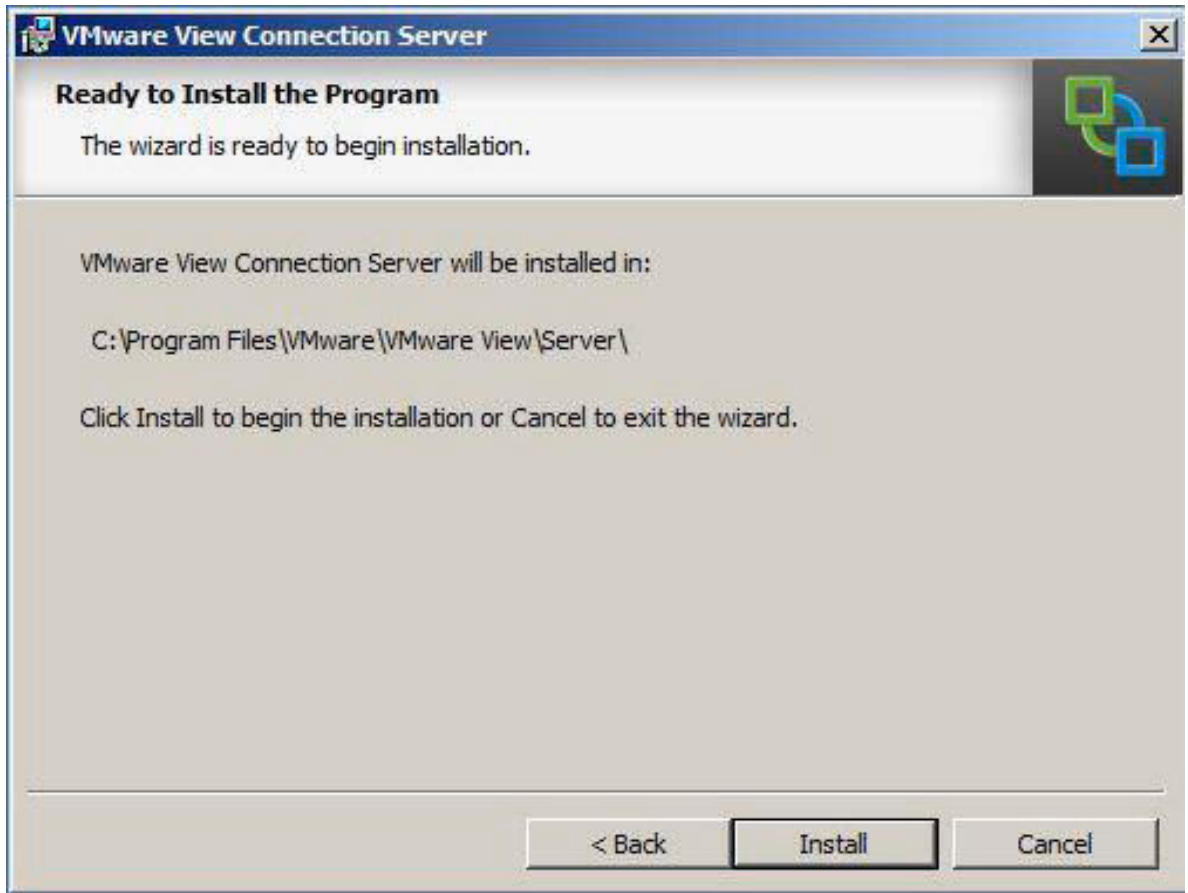
10. After installation is completed, click **Finish**.
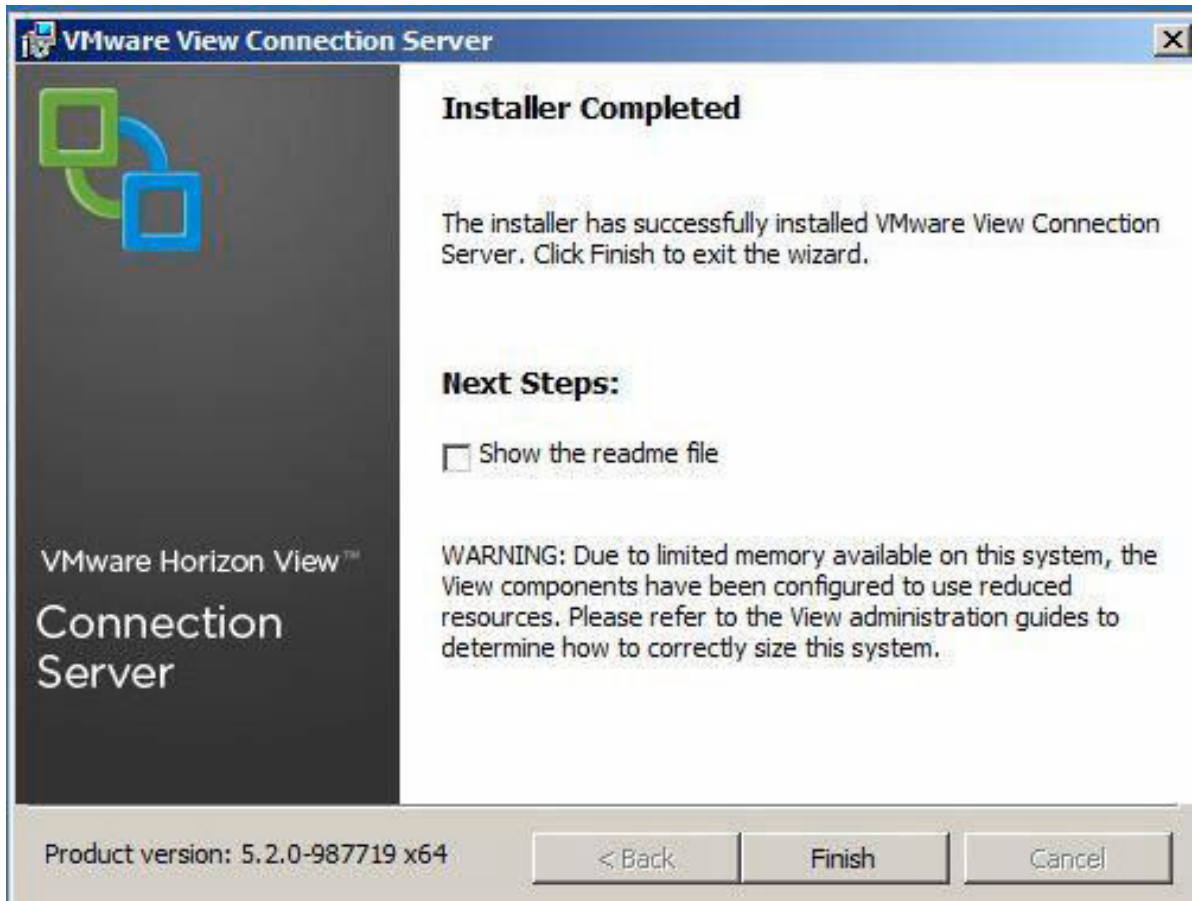
View Composer

The following activities must be performed to complete the pre-requisite steps for the View Composer Setup:

1. Create a SQL Server Database by opening the SQL Server Management Studio Application. Expand the SQL Server node and right-click **Databases** node and click **New Database**.
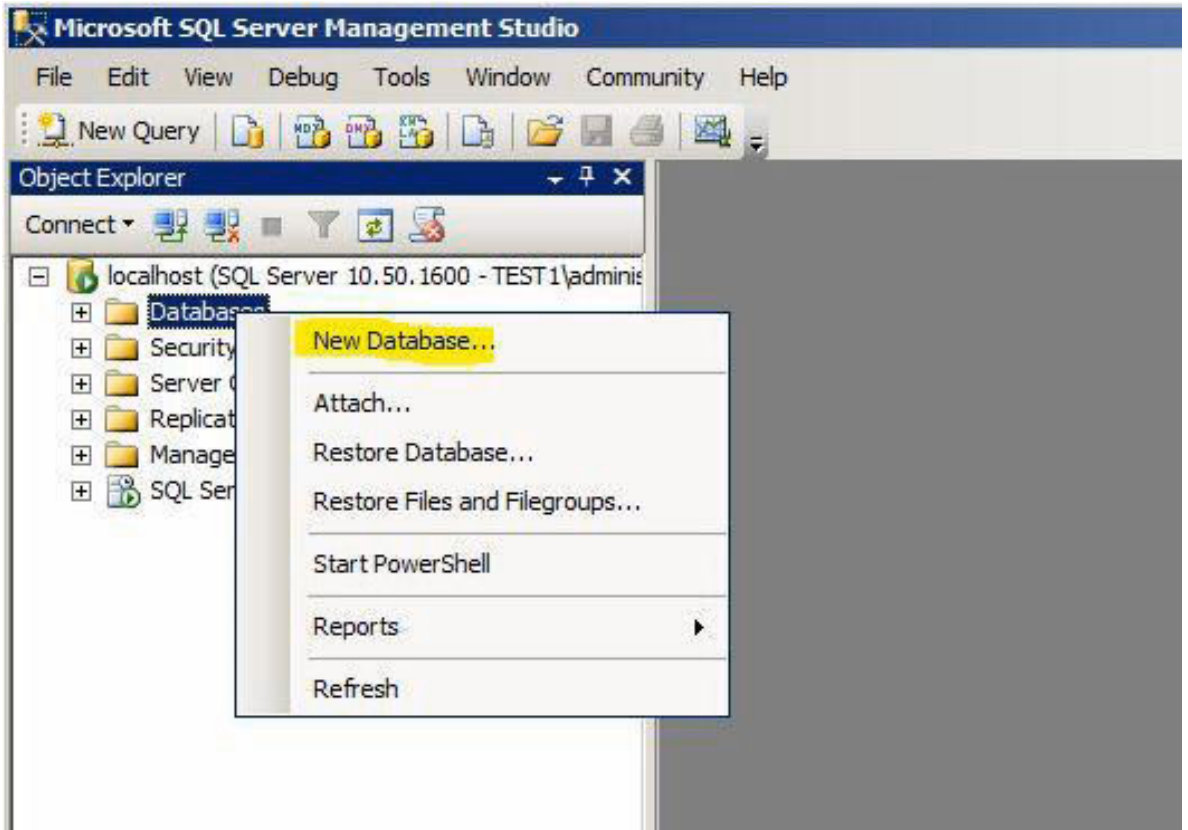
2. Type appropriate database name, configure the database settings as shown in the screenshot here, and then click **OK**.
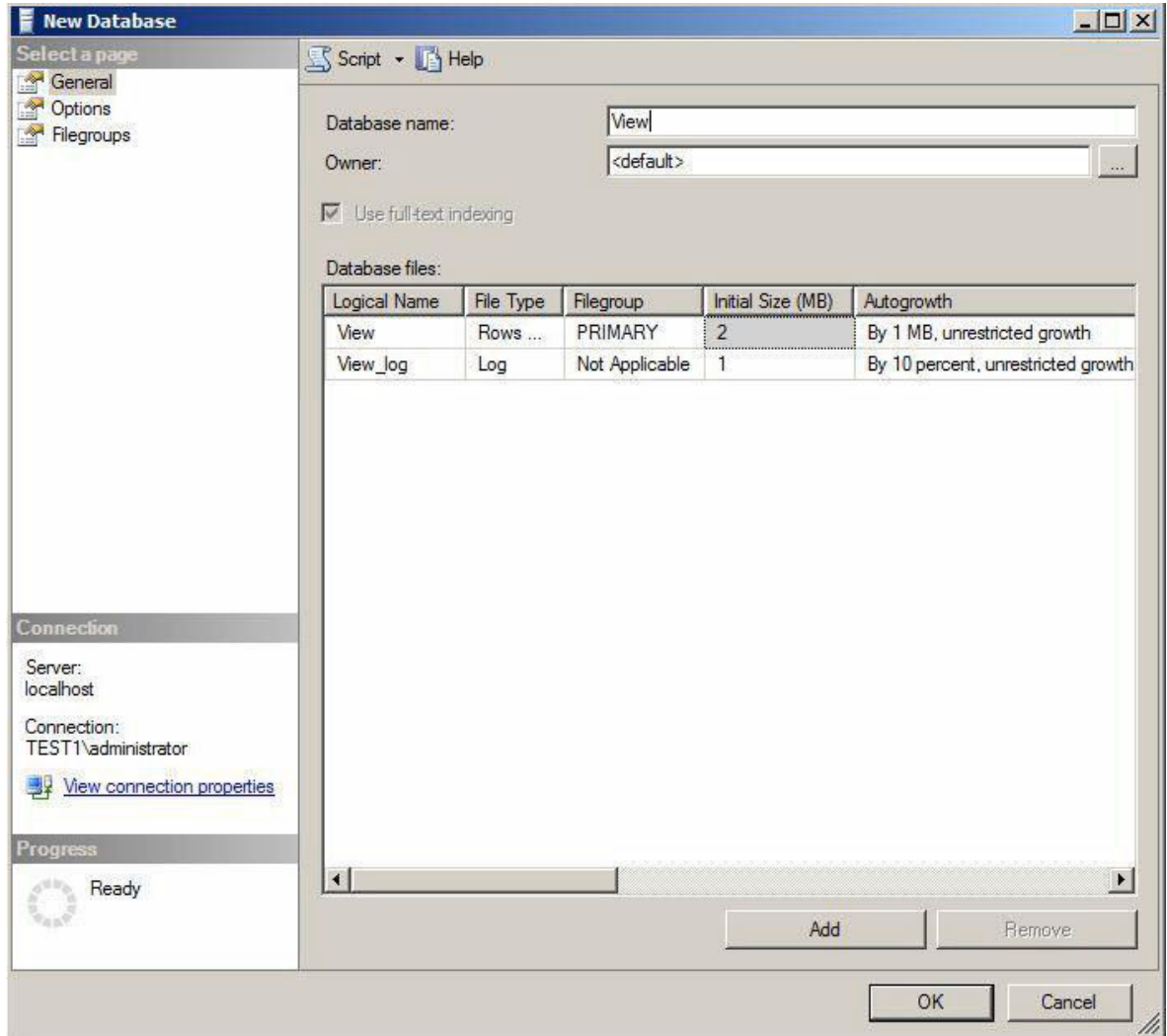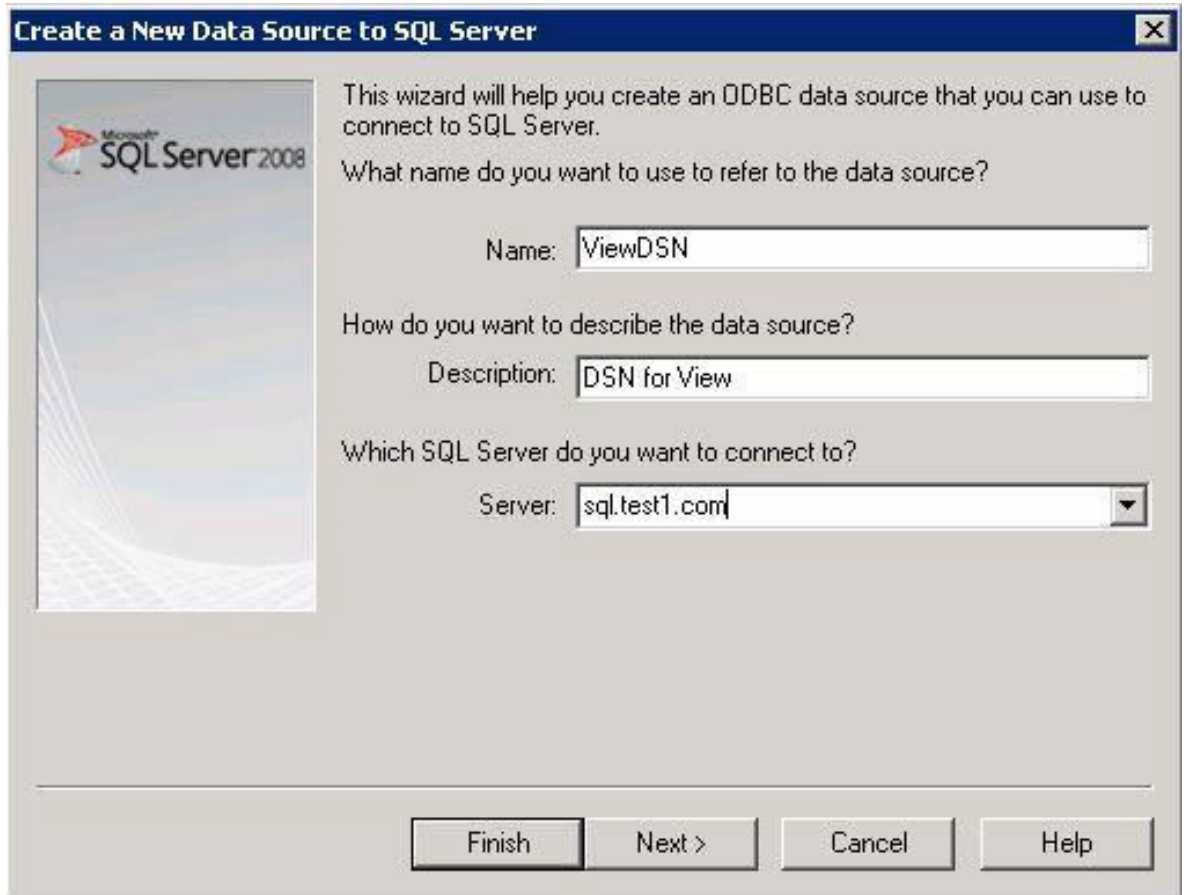
3. On the View Composer server, configure and ODBC connection, by starting the **ODBC Data Source Administrator** application from **Administrative** Tools. Click the **System DSN** tab and click **Add**.
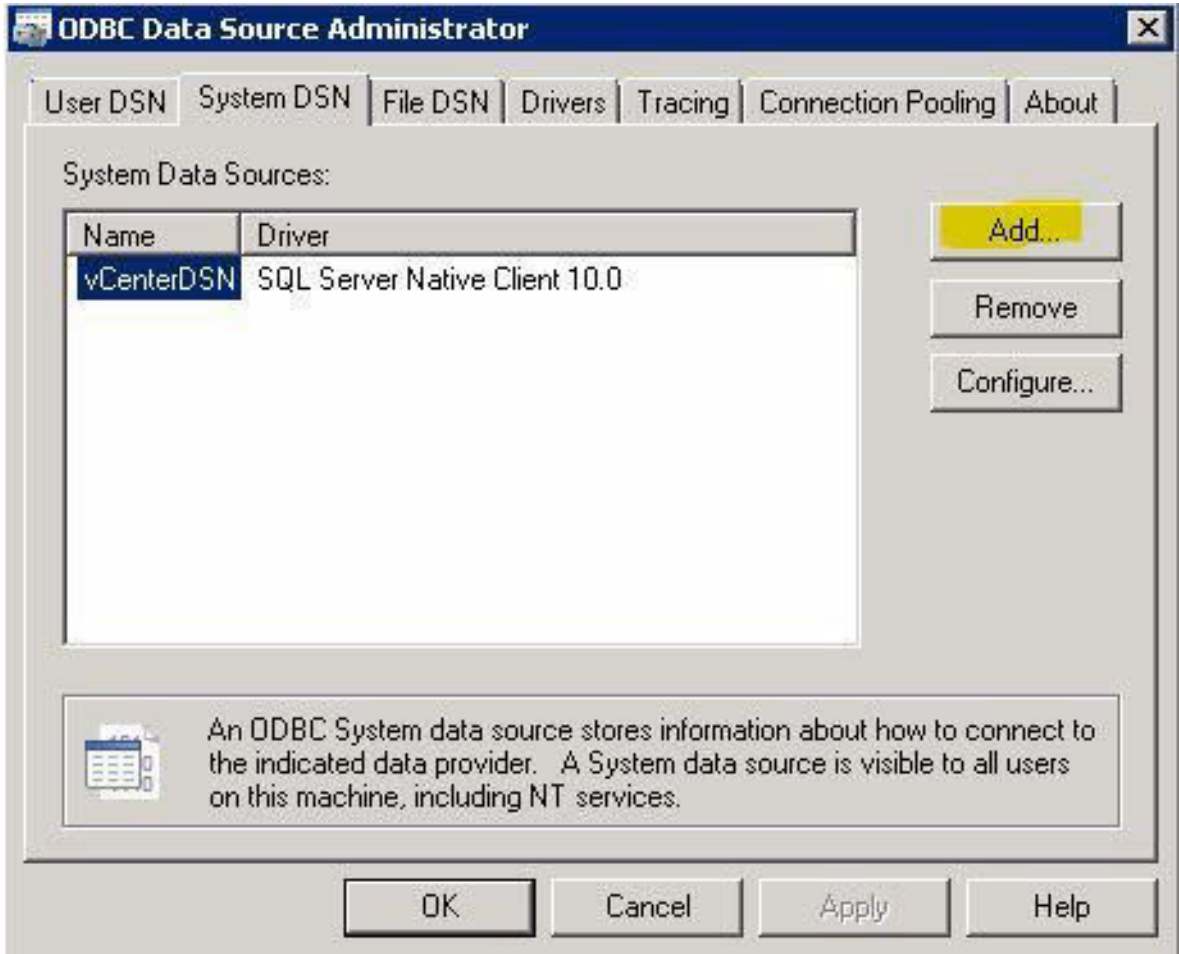
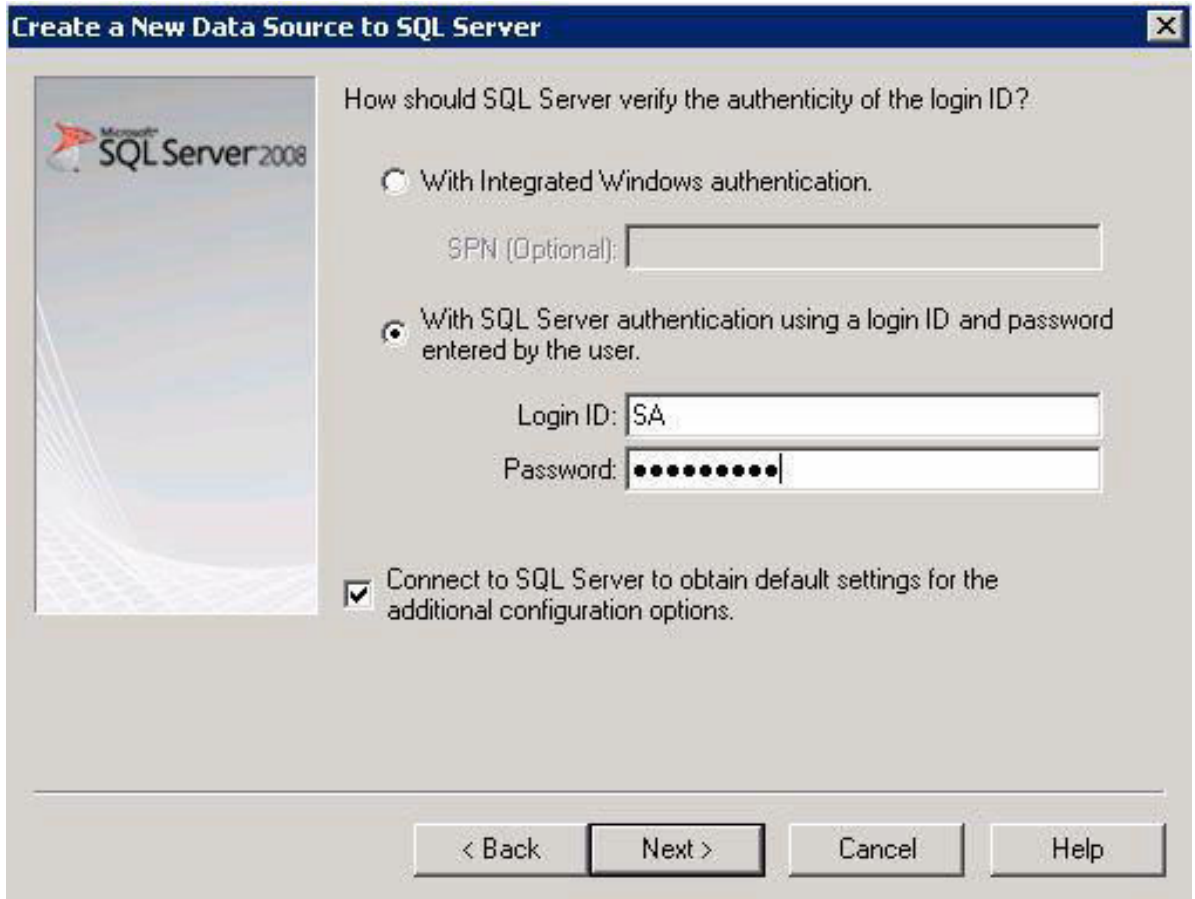4. Create the new Data Source with the **SQL Server Native Client 10.0** name.
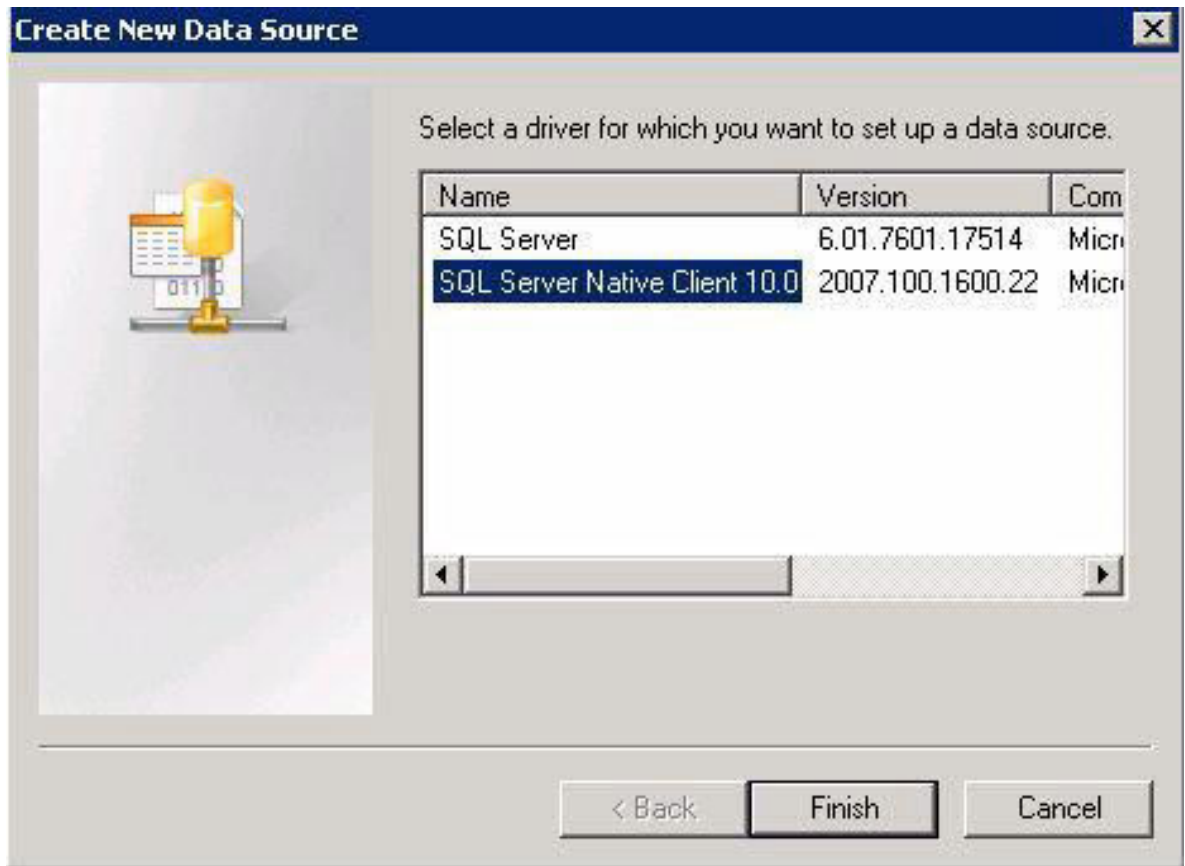
5. Type a system DSN, and then select appropriate SQL Server you want to connect to, and then click Next.
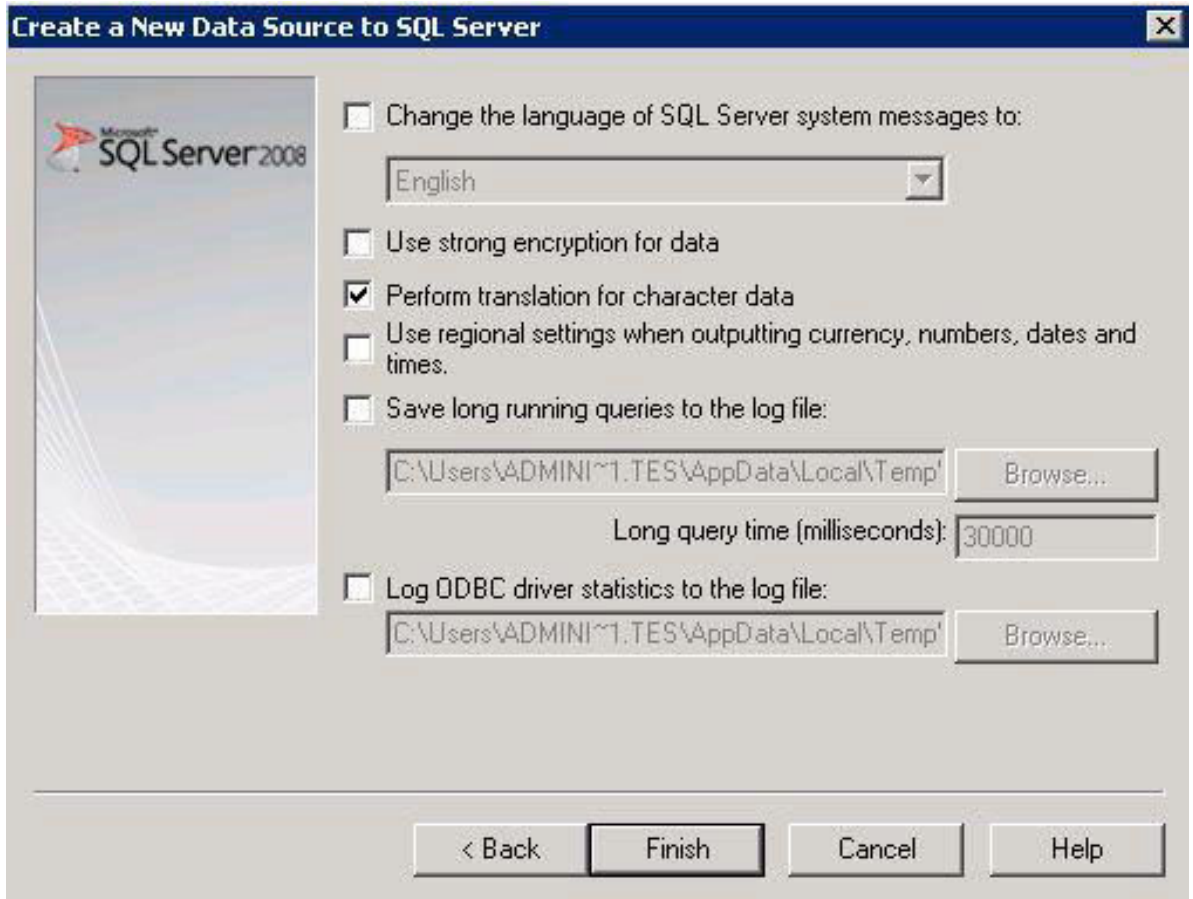
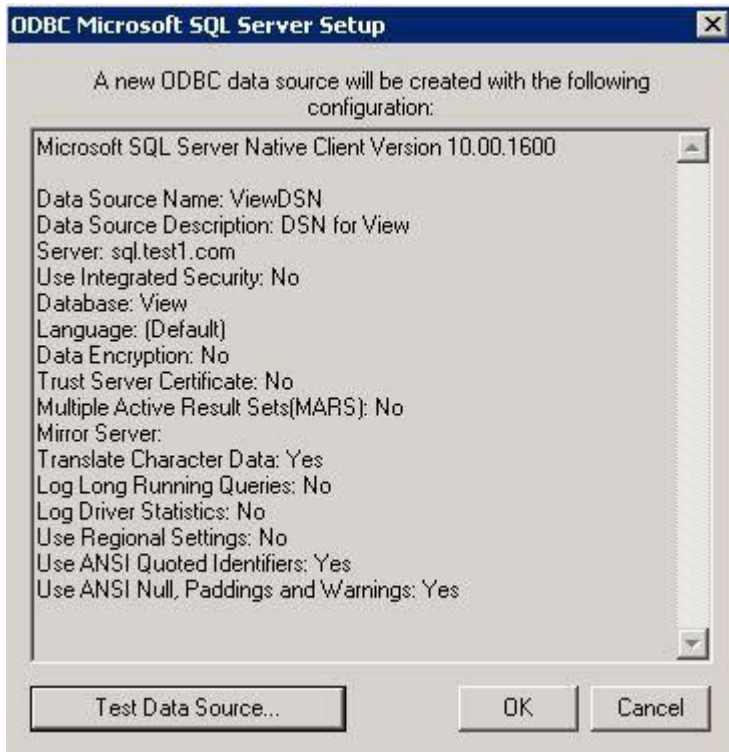6. Enter credentials for the SQL Database and click **Next**.

7. If there are multiple databases on the SQL Server, select the **Change the default database to** check box, and then select **View** from the drop-down menu.
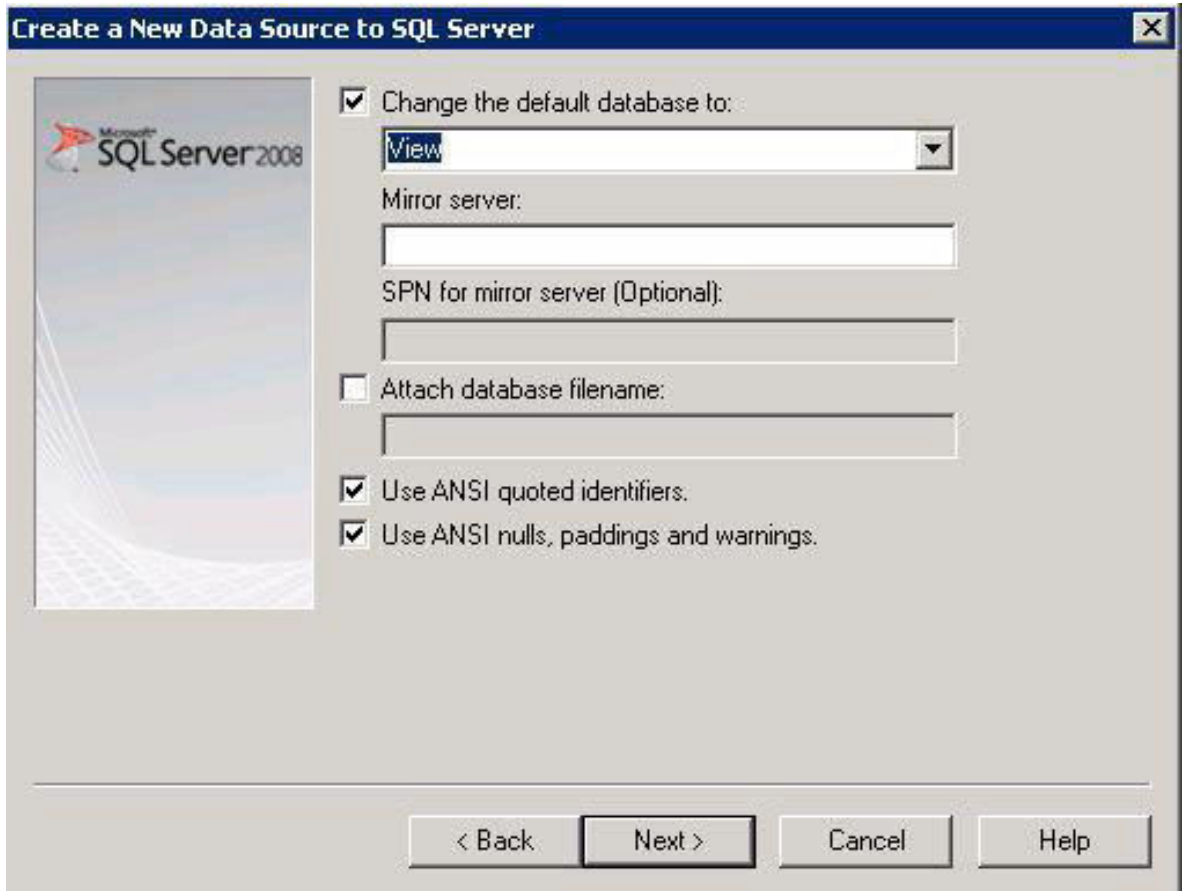
8. Leave all default options as is, and then click **Finish**.

9. Click the **Test Data Source** button.

ODBC Microsoft SQL Server Setup

A new ODBC data source will be created with the following configuration:

Microsoft SQL Server Native Client Version 10.00.1600

Data Source Name: ViewDSN
Data Source Description: DSN for View
Server: sql.test1.com
Use Integrated Security: No
Database: View
Language: (Default)
Data Encryption: No
Trust Server Certificate: No
Multiple Active Result Sets(MARS): No
Mirror Server:
Translate Character Data: Yes
Log Long Running Queries: No
Log Driver Statistics: No
Use Regional Settings: No
Use ANSI Quoted Identifiers: Yes
Use ANSI Null, Paddings and Warnings: Yes

Test Data Source...   OK   Cancel

10. After the SQL Server ODBC Data Source test completes successfully, click **OK**.

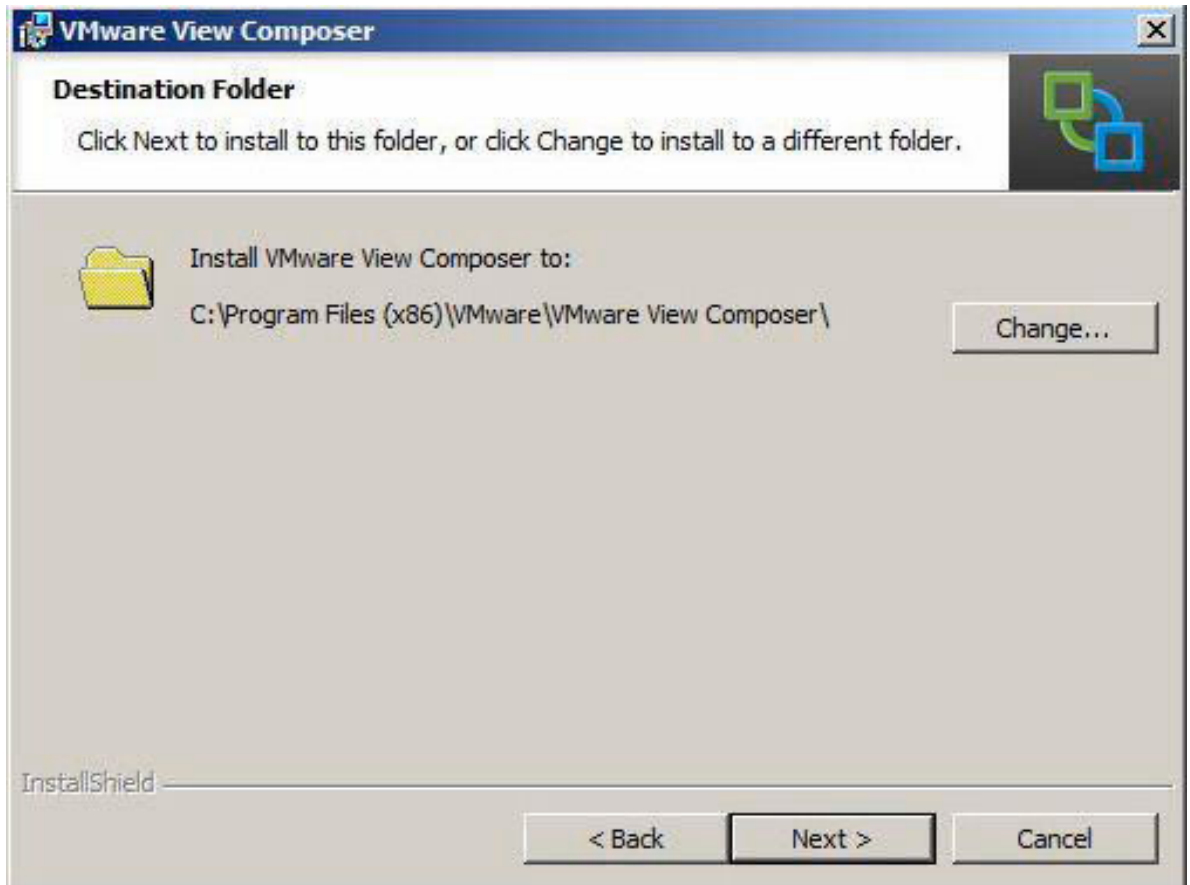**Figure 2.**

Installing VMware View Composer

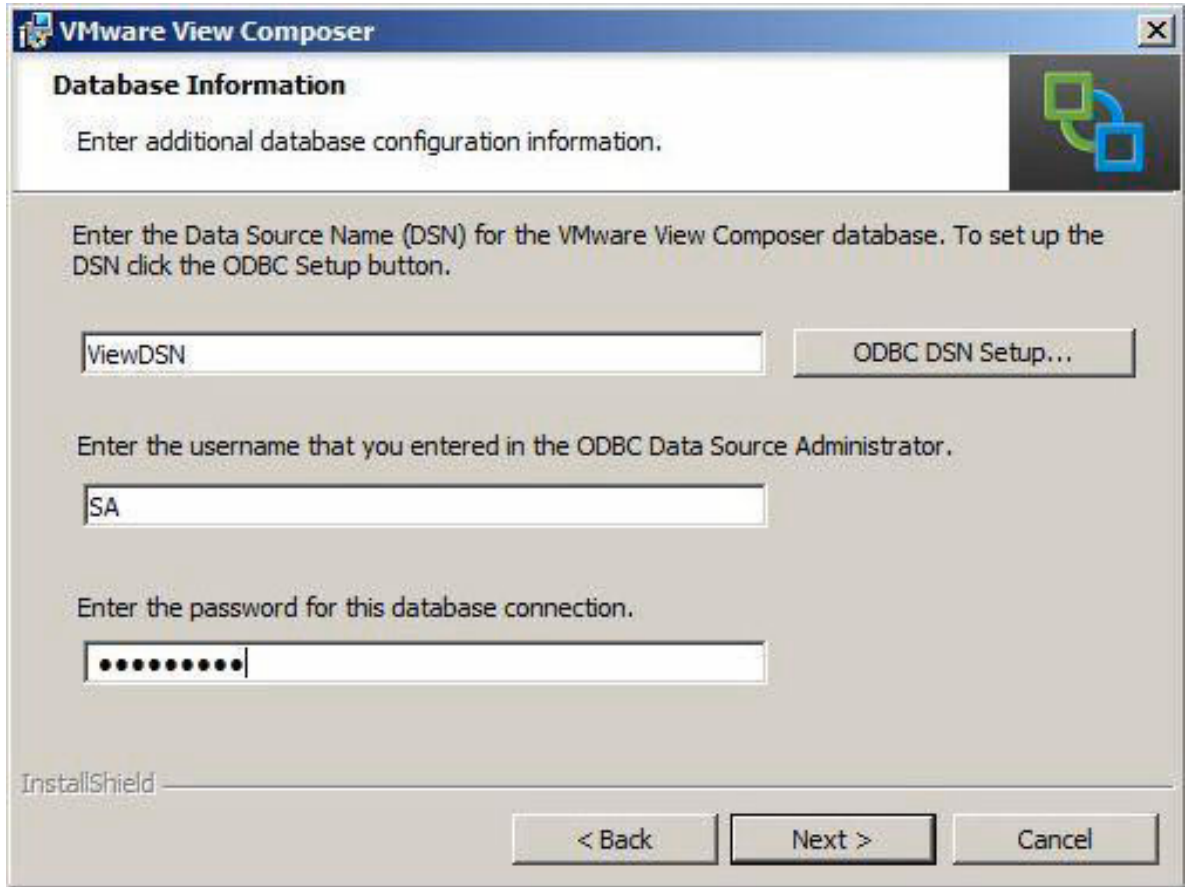**1.** Start View Composer Installation process and click **Next**.

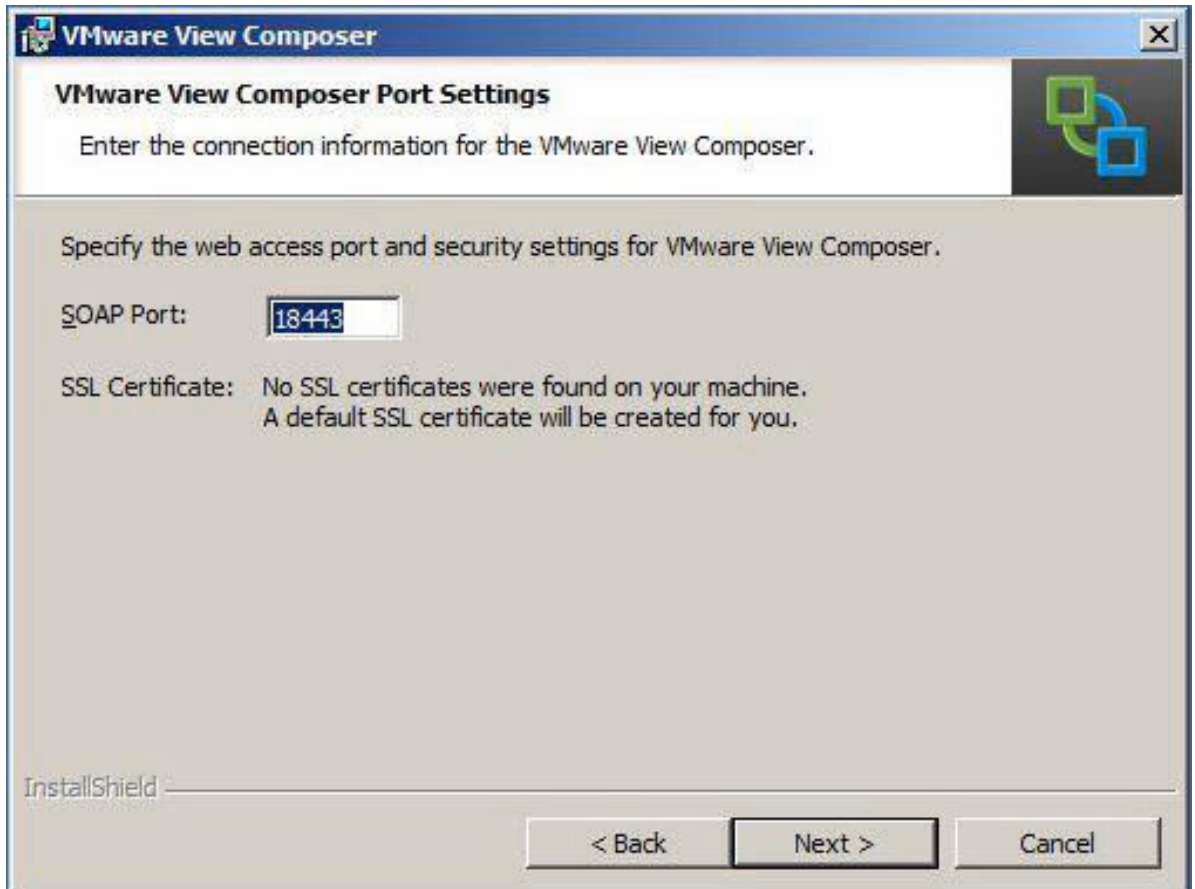2. Accept VMware EULA and click **Next**.

3. Modify or select the default installation destination folder and click **Next**.
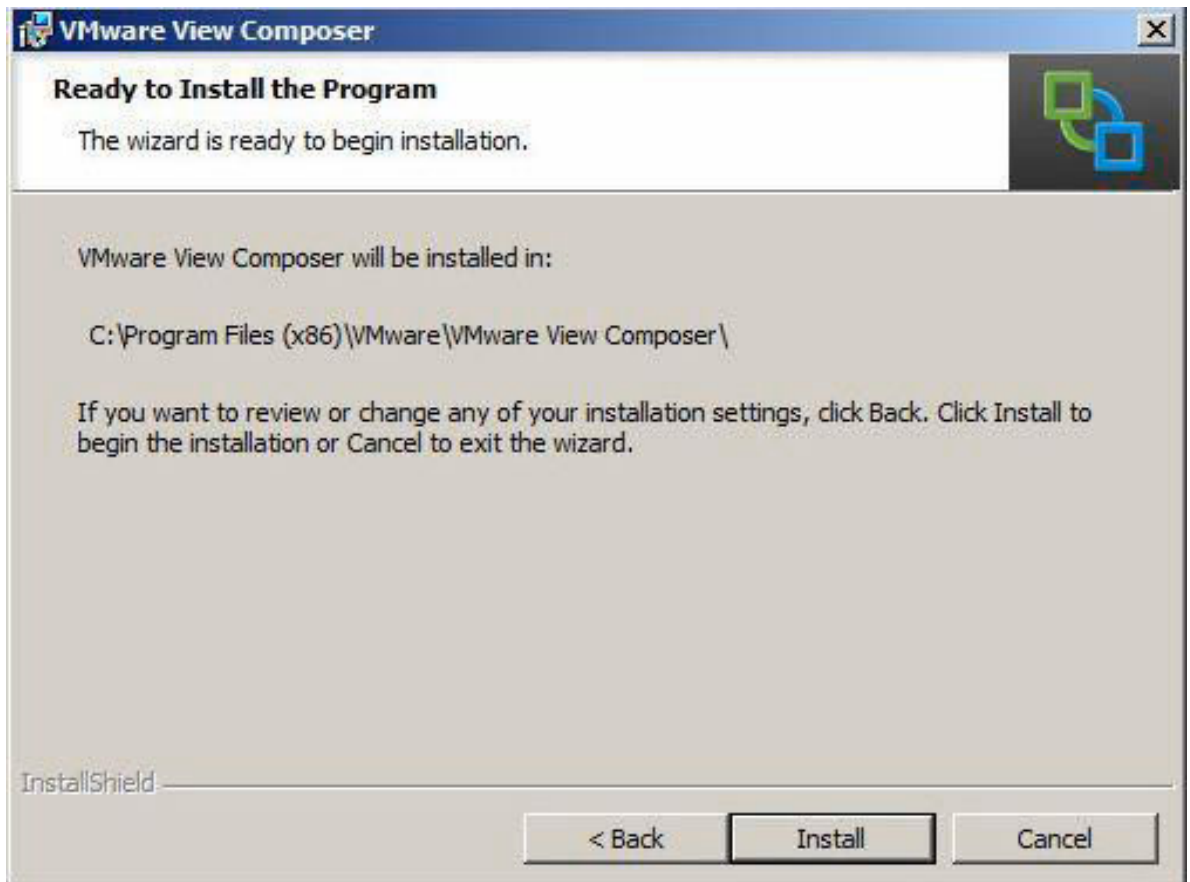
4. Enter the ODBC DSN name, enter the SQL Server database credentials, and then click **Next**.
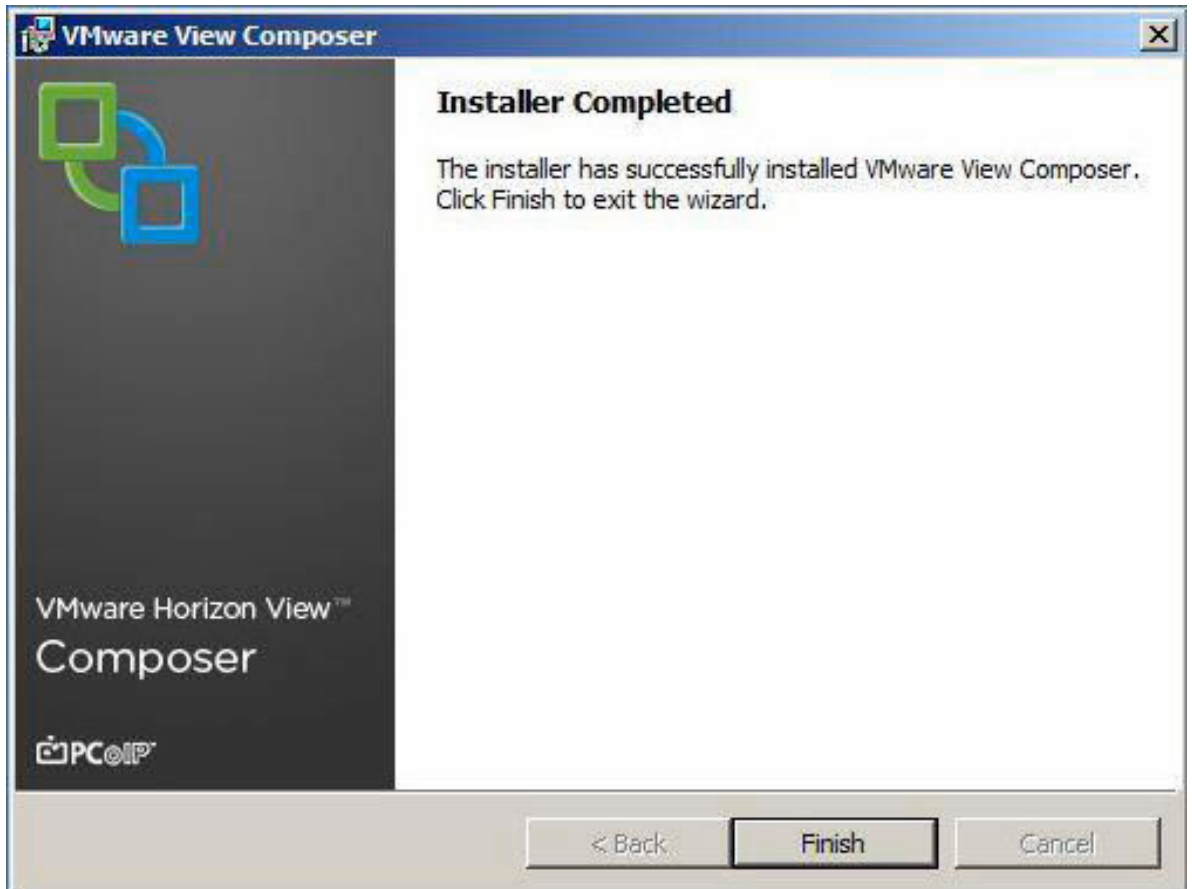
5. Accept the default SOAP Port and click **Next**.

6. On the **Ready to Install the Program** screen, confirm the installation details and click **Install**.

VMware View Composer

Ready to Install the Program

The wizard is ready to begin installation.

VMware View Composer will be installed in:

C:\Program Files (x86)\VMware\VMware View Composer\

If you want to review or change any of your installation settings, click Back. Click Install to begin the installation or Cancel to exit the wizard.

InstallShield

[< Back] [Install] [Cancel]

7. After the installation completes, click **Finish**.

Configuring View Composer

To configure the View Composer application:

1. Open the View Administrator console from View Connection server or open a web browser and navigate to https:// IP Address of View Connection Server/admin. Expand **View Configuration** and click **Product Licensing and Usage**. In the working pane, click **Edit License**.

2. Enter the appropriate license key and click **OK**.

3. Under **View Configuration**, click **Servers**, and then click **Add** to add vCenter Server to the configuration.
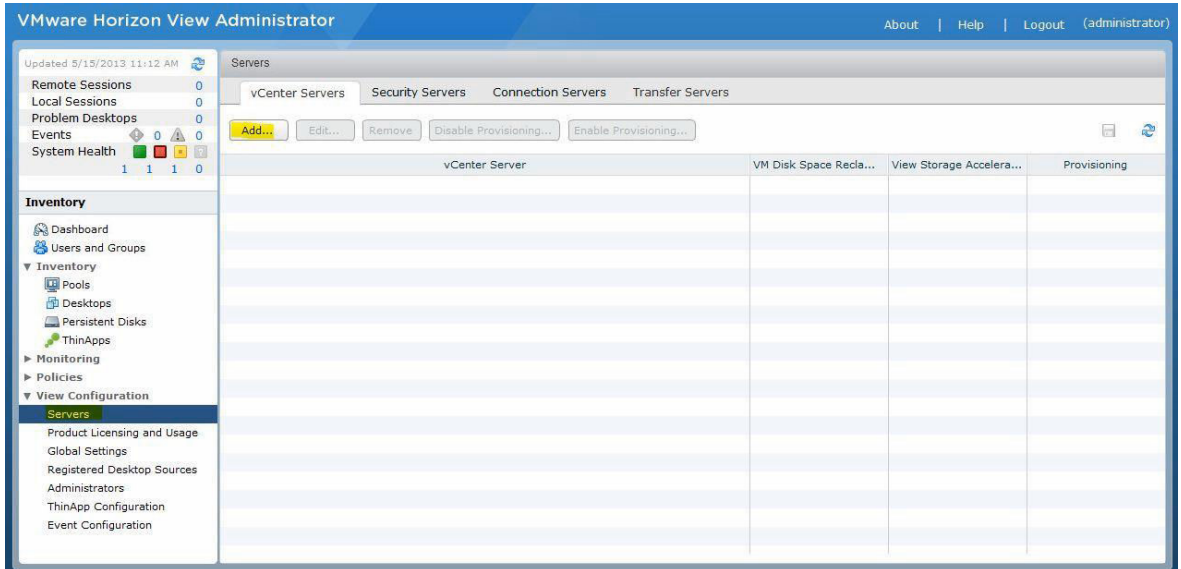
4. Enter the vCenter Server address, login credentials, and advanced settings as shown in the sample screenshot here.

5. The certificate will not be trusted by default. Click **View Certificate**.

Invalid Certificate Detected

5/15/2013 11:37 AM

The identity of the specified vCenter Server cannot be verified for the following reasons:

⚠ Server's certificate is not trusted.
⚠ Server's certificate cannot be checked.

VMware recommends the use of certificates signed by a trusted Certification Authority.

View Certificate...   Cancel

6. To trust this certificate, click **Accept**.

Certificate Information

Issued to:	VMware default certificate
Issued by:	vCenter.test1.com
Valid from:	5/13/13 7:13 PM to 5/12/23 7:13 PM
Subject:	EMAILADDRESS=support@vmware.com CN=VMware default certificate OU=vCenterServer_2013.05.14_173158 O=VMware, Inc.
Issuer:	EMAILADDRESS=support@vmware.com CN=vCenter.test1.com OU=vCenterServer_2013.05.14_173158 O=VMware, Inc.
Serial Number:	10 00 02
Version:	3
Signature Algorithm:	SHA256withRSA
Public Key Algorithm:	RSA
Public Key:	30 82 01 22 30 0d 06 09 2a 86 48 86 f7 0d 01 01 01 05 00 03 82 01 0f 00 82 01 0a 02 82 01 01 00 97 93 03 a3 e1 1a 88 5c 57 48 d6 5a 7f 0c e0 eb 6a 4f 4f 14 4a 16 4a d6 c1 31 03 0f 1c 61 67 c5 95 11 c2 38 c3 8a 13 da 2

Accept   Reject

7. Because we have installed **View Composer on vCenter server,** select **View Composer co-installed with vCenter Server**, and then click **Next**.
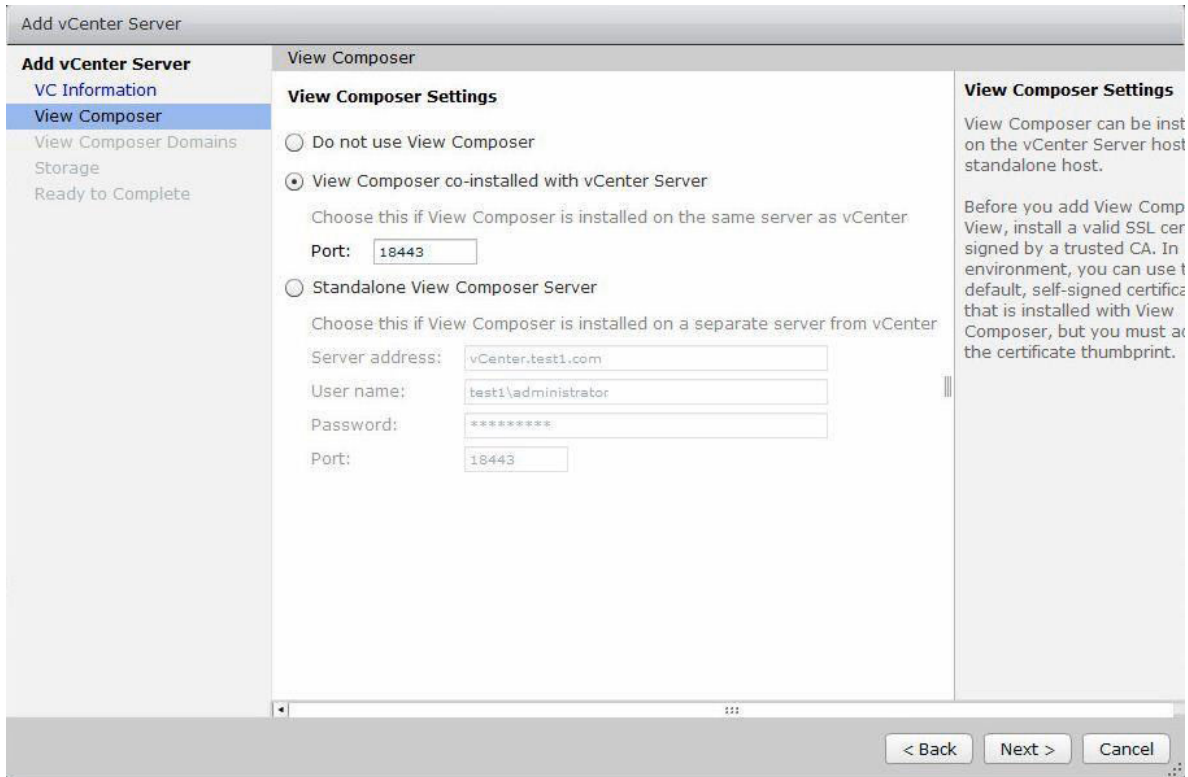
8. The certificate will not be trusted by default. Click **View Certificate**.

9. To trust this certificate, click **Accept**.

Certificate Information

Issued to:	VCENTER
Issued by:	VCENTER
Valid from:	5/15/13 10:23 AM to 5/15/15 10:23 AM
Subject:	C=US ST=CA L=CA O=VMware Inc. OU=VMware Inc. CN=VCENTER EMAILADDRESS=support@vmware.com
Issuer:	C=US ST=CA L=CA O=VMware Inc. OU=VMware Inc. CN=VCENTER EMAILADDRESS=support@vmware.com
Serial Number:	65 5b cc ca b5 91 44 a5 4e c7 59 2f 01 d6 35 c5
Version:	3

Accept   Reject
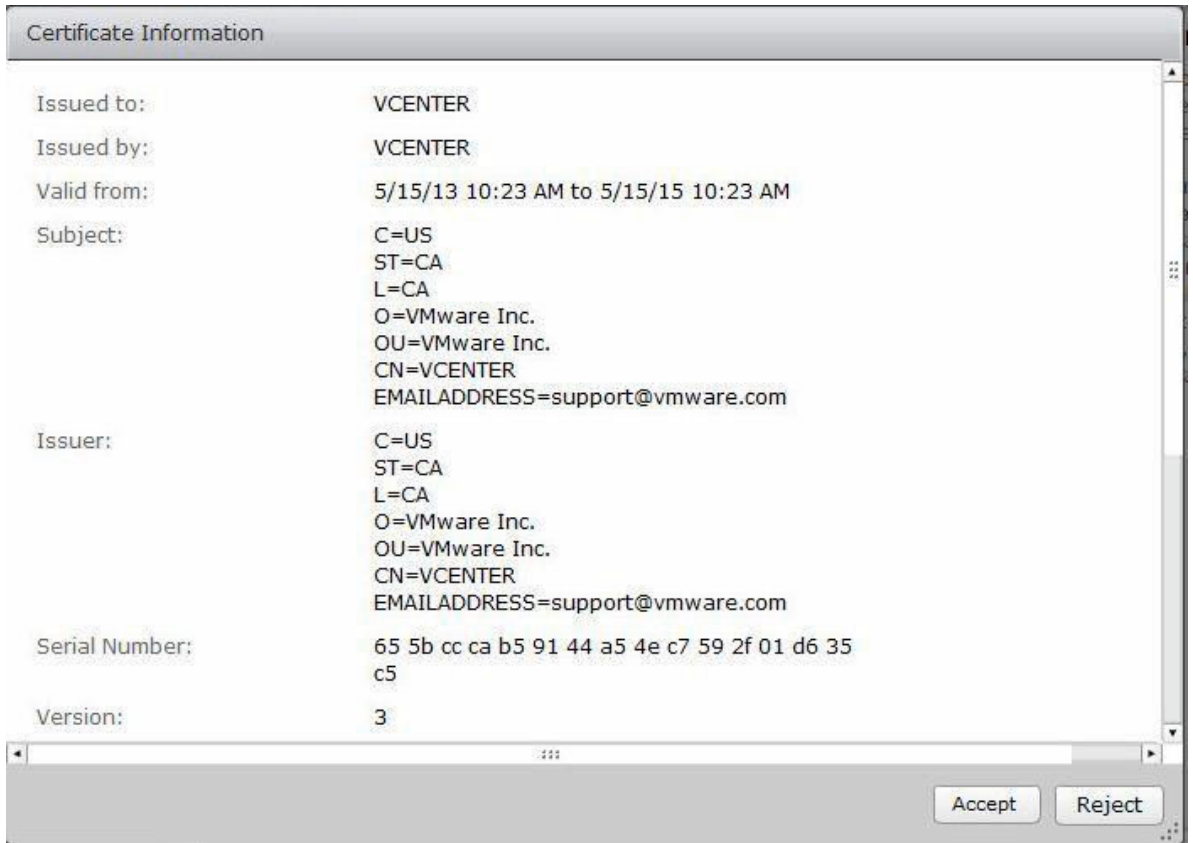
10. Click **Add** to add view composer domains.
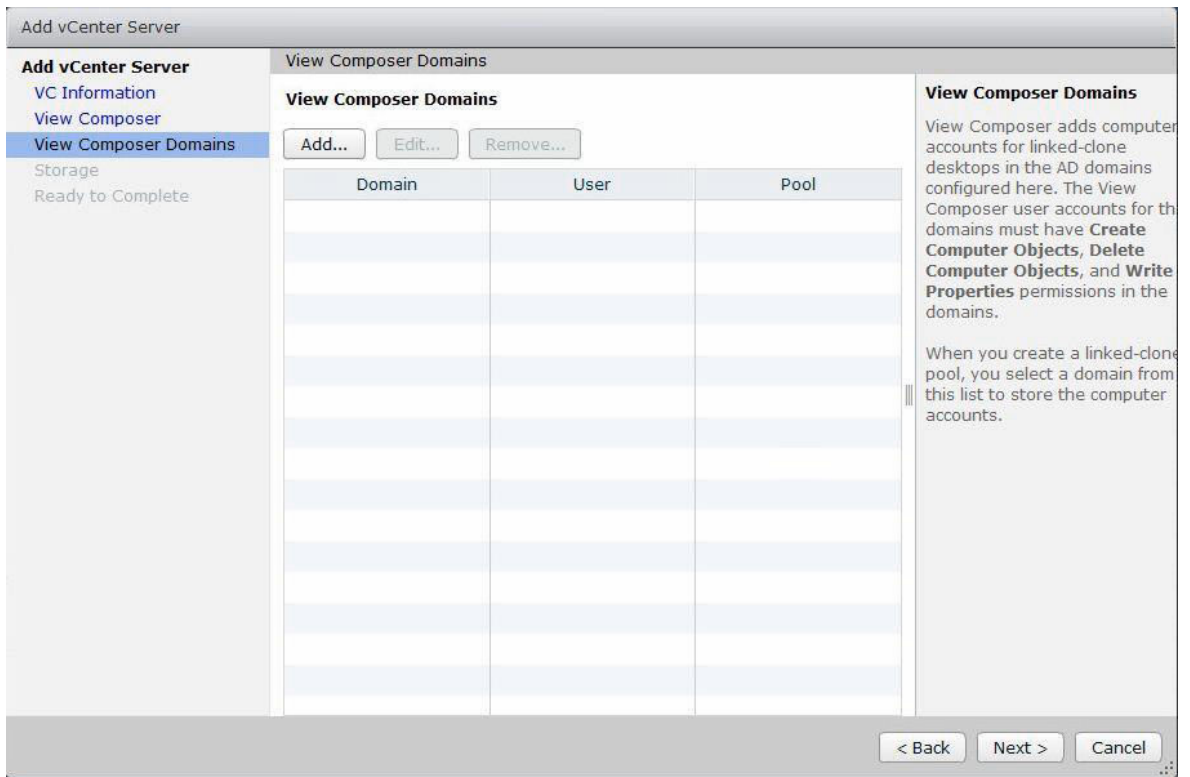
11. Enter the domain name and password as shown in the screenshot here, and then click **OK**.

f
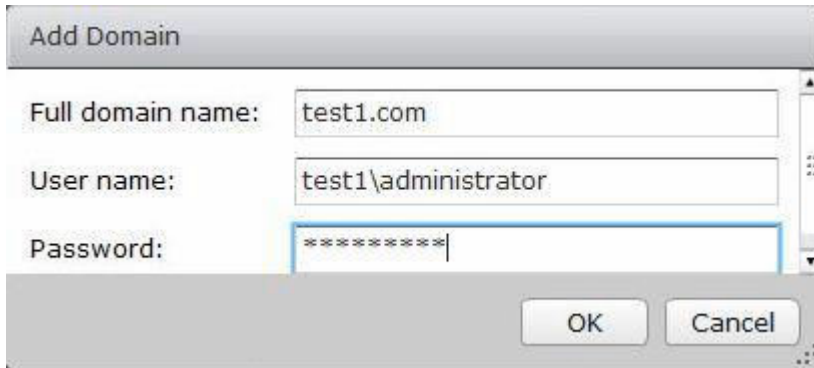
12. Click **Next**.
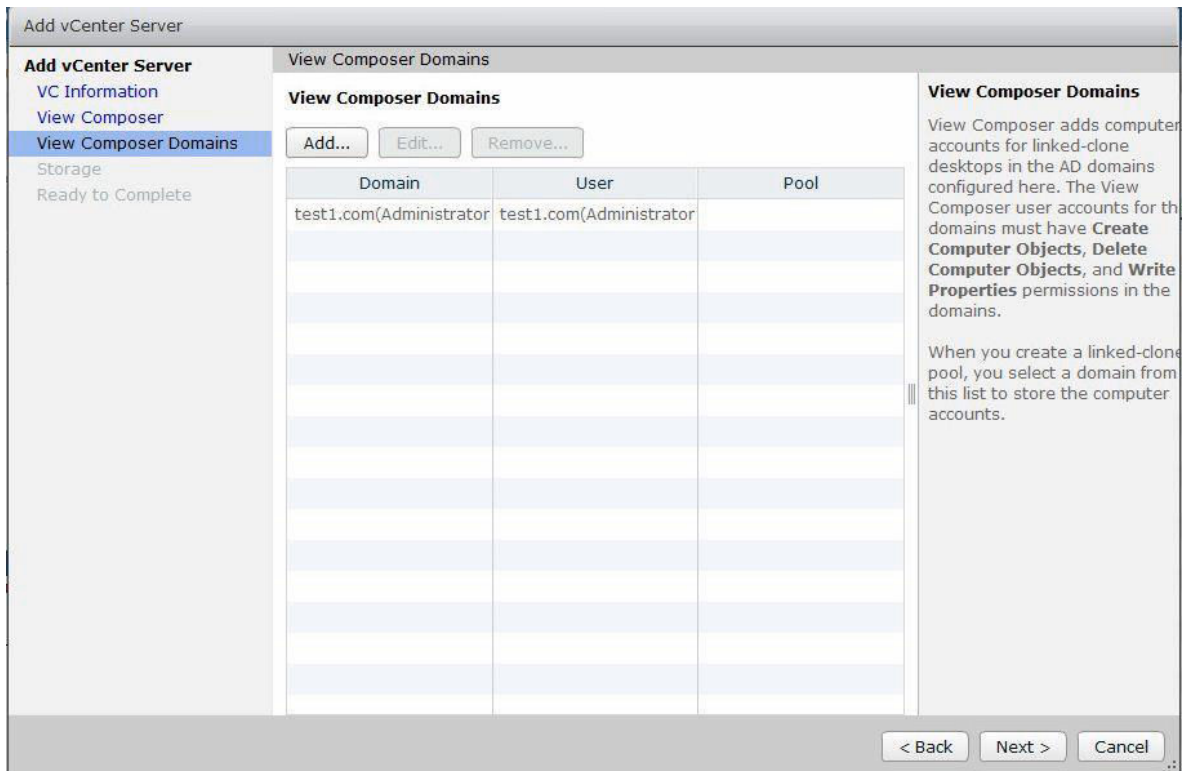
13. Accept default settings and click **Next**.

14. Click **Finish**.

15. For logging the events on VMware View Horizon View, setup **Event Configuration** by expanding **View Configuration**, clicking **Event Configuration**, and then clicking **Edit**.

16. Enter Database details and click **OK**.

Edit Event Database

Database server:	sql.test1.com
Database type:	Microsoft SQL Server ▾
Port:	1433
Database name:	View
User name:	SA
Password:	*********
Confirm password:	*********
Table prefix:	SN

OK   Cancel

NOTE: Ideally in a production environment, you can create a separate database for event configuration. Because this is a test environment, we are going to use view composer database.

Gold Image Preparation

Windows 8 (A Example)

Do the following on the Windows 8 base image:

1. Create Base Image VM and Install Windows 8 OS
2. Join VM to the domain.
3. Install the latest Windows updates.
4. Install the required applications.
5. Install VMware View Agent.

Installing VMware View Agent

1. Start VMware View Agent Installation media and click **Next**.
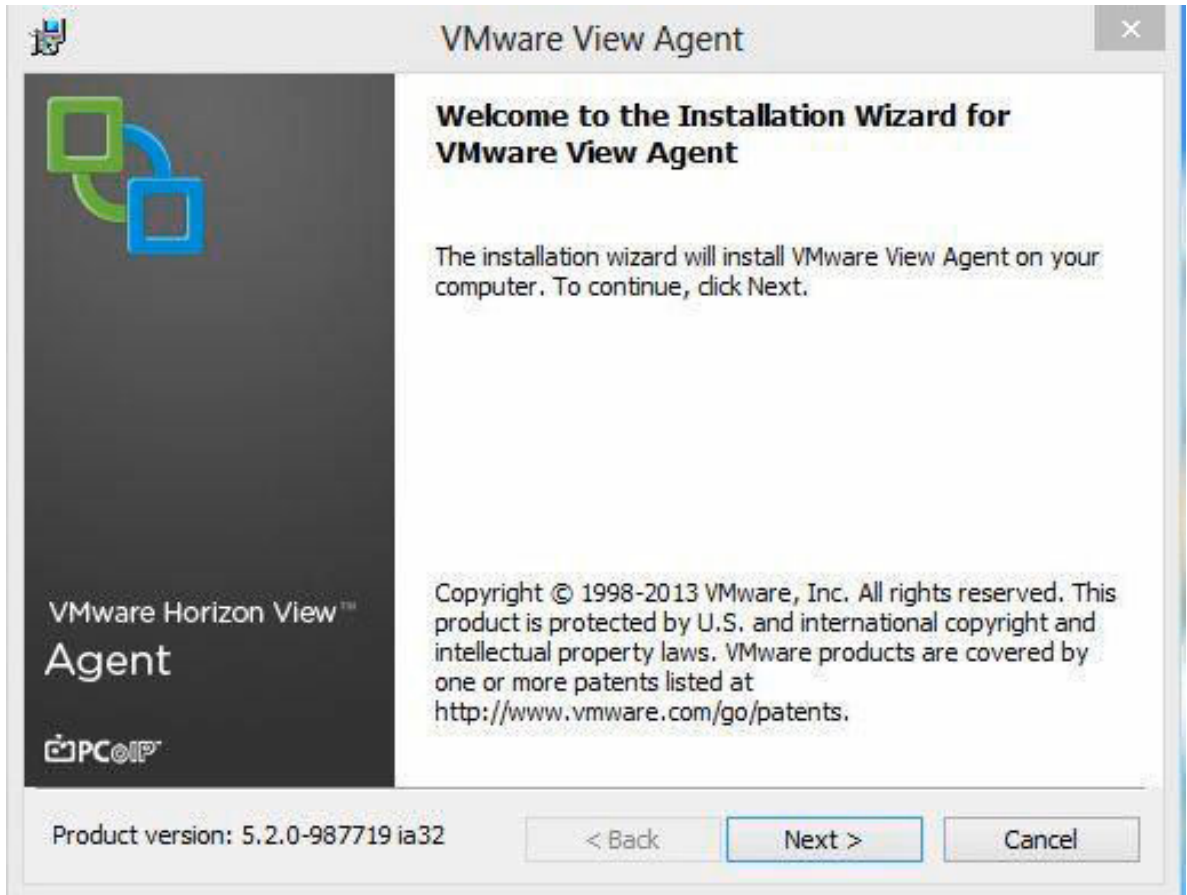
2. Accept VMware EULA and click **Next**.

3. Accept default settings and click **Next**.
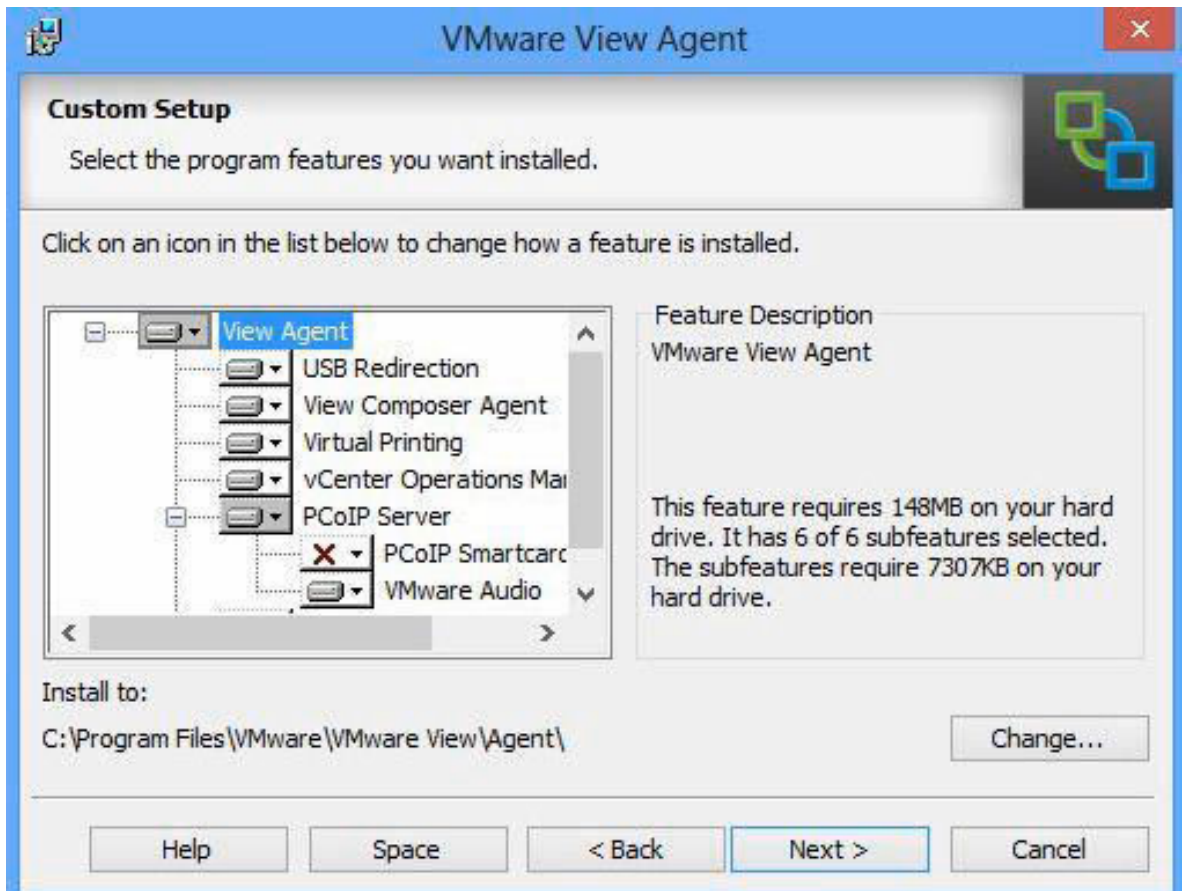
4. Modify or select the default installation destination folder and click **Install**.
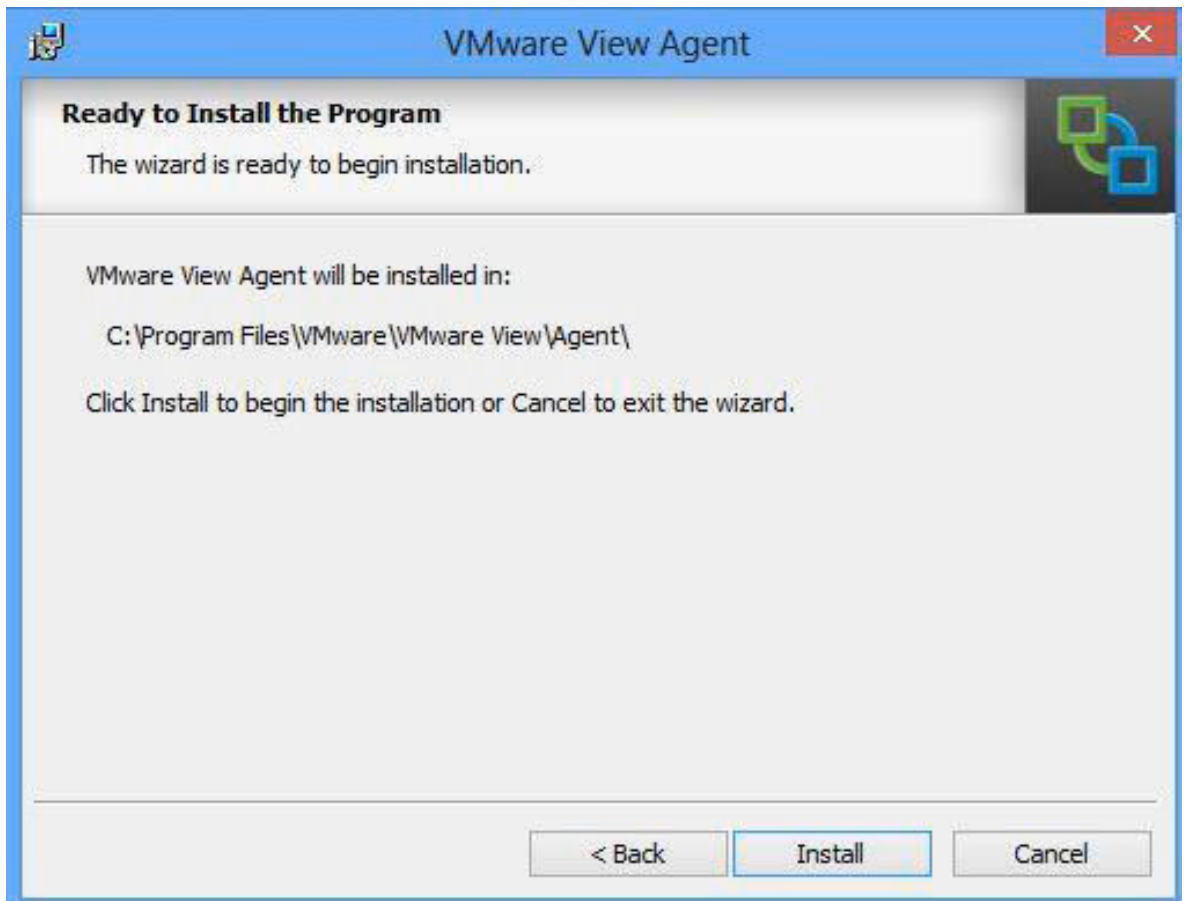
5. Click **Finish**.
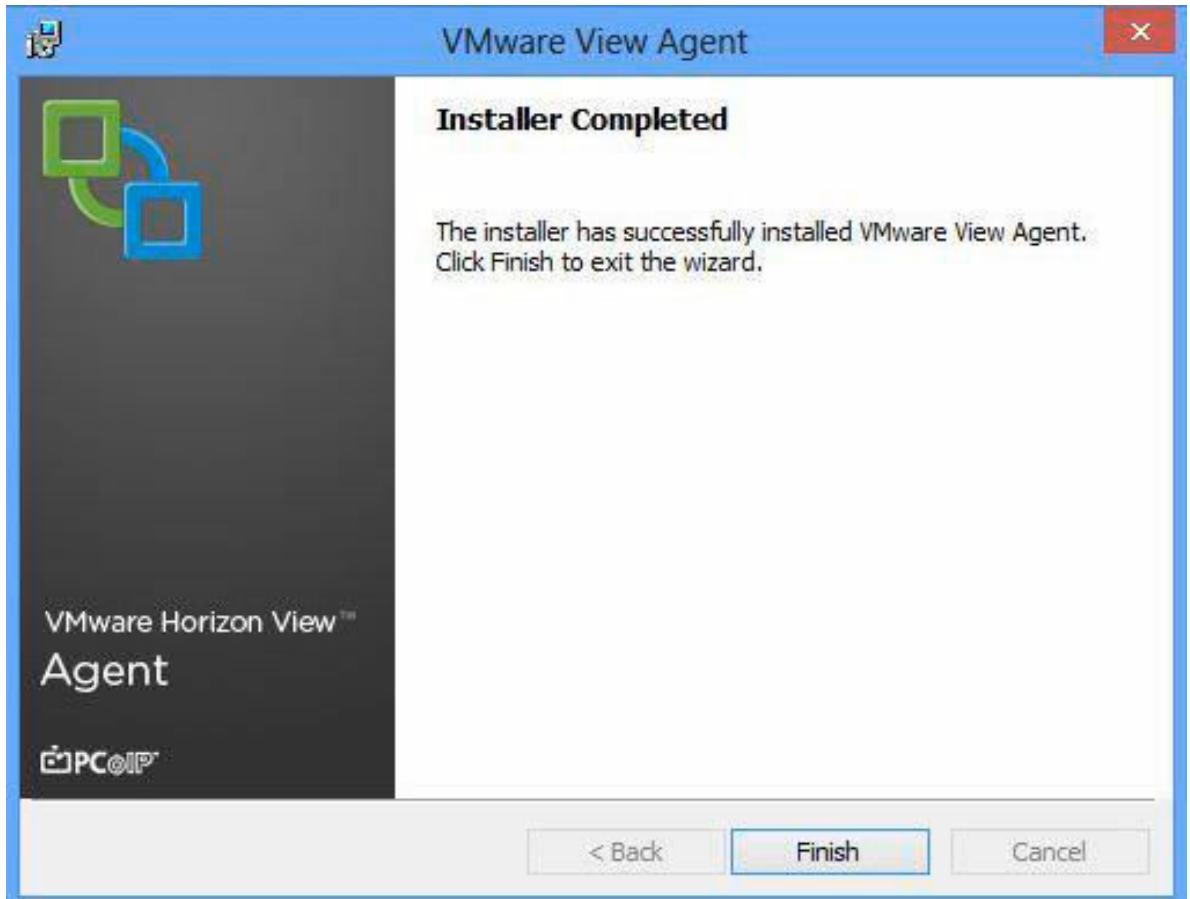
6. Optimizing Windows 8

Windows 8 VM must be optimized in order to provide a more responsive desktop for the end user and to disable any services that are not relevant to a virtual desktop scenario. The following document was used to optimize the base image.

Pool Deployment

To create and assign a desktop pool to a group of users:

1. Log in to View Administrator with administrator privileges. The **VMware Horizon View Administrator** page is displayed. To create a desktop pool, in the left pane, click **Pools** under **Inventory**.
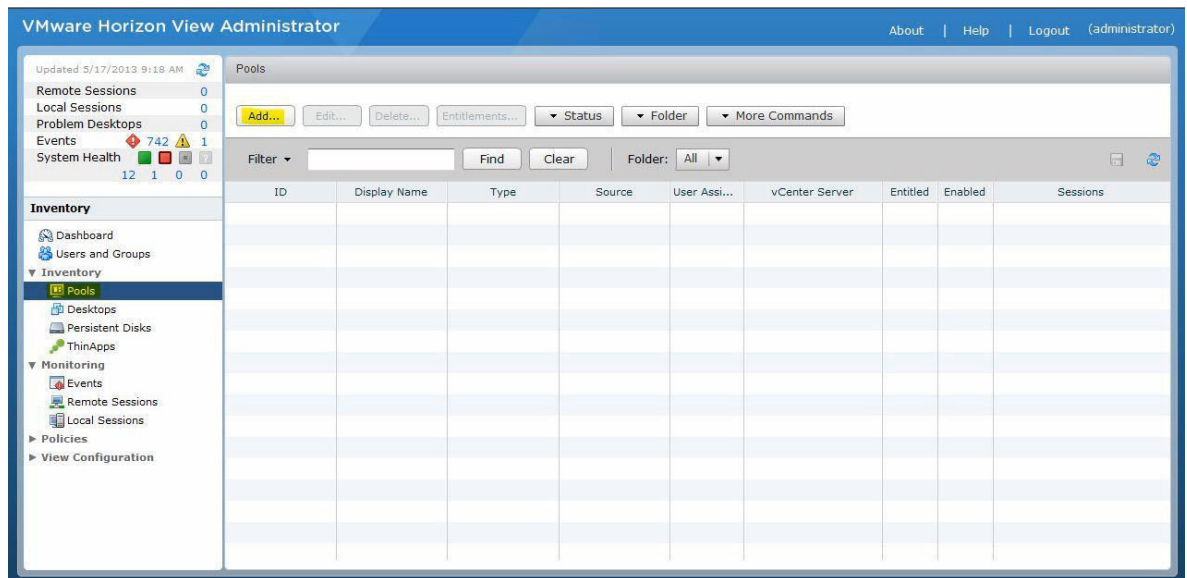
2. Select **Automated Pool** from the list and click **Next**.
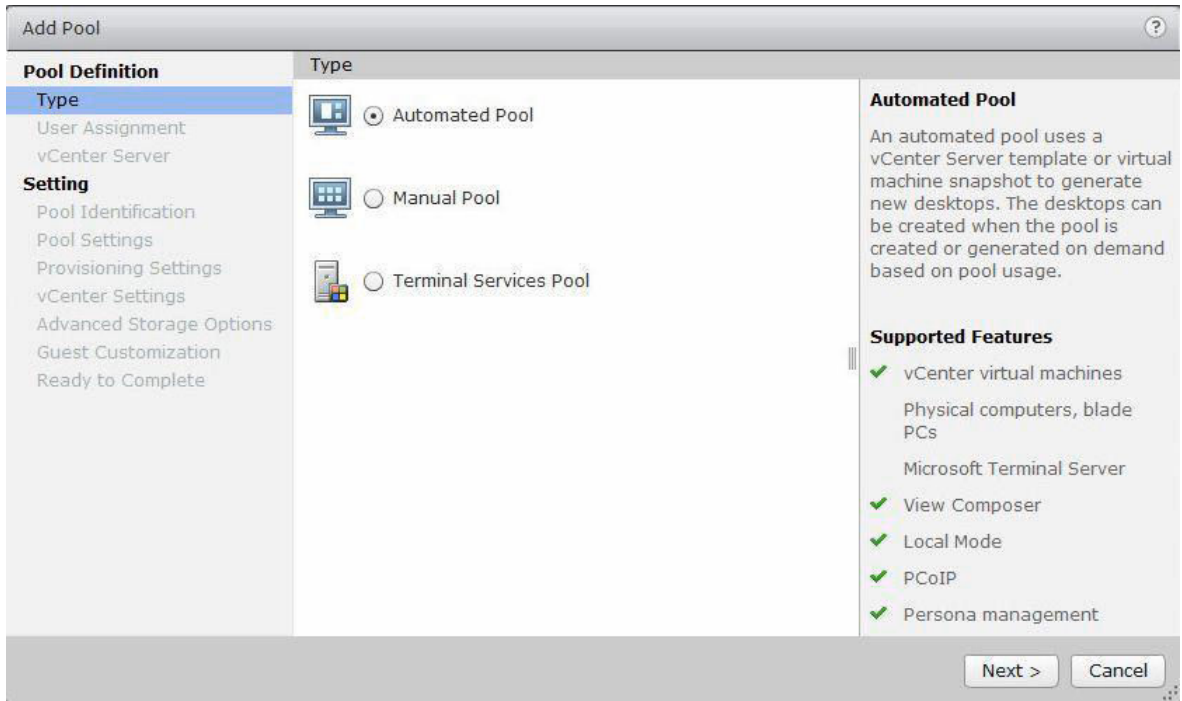
3. To deploy a non-persistent desktop pool, select **Floating**, and then click **Next**.
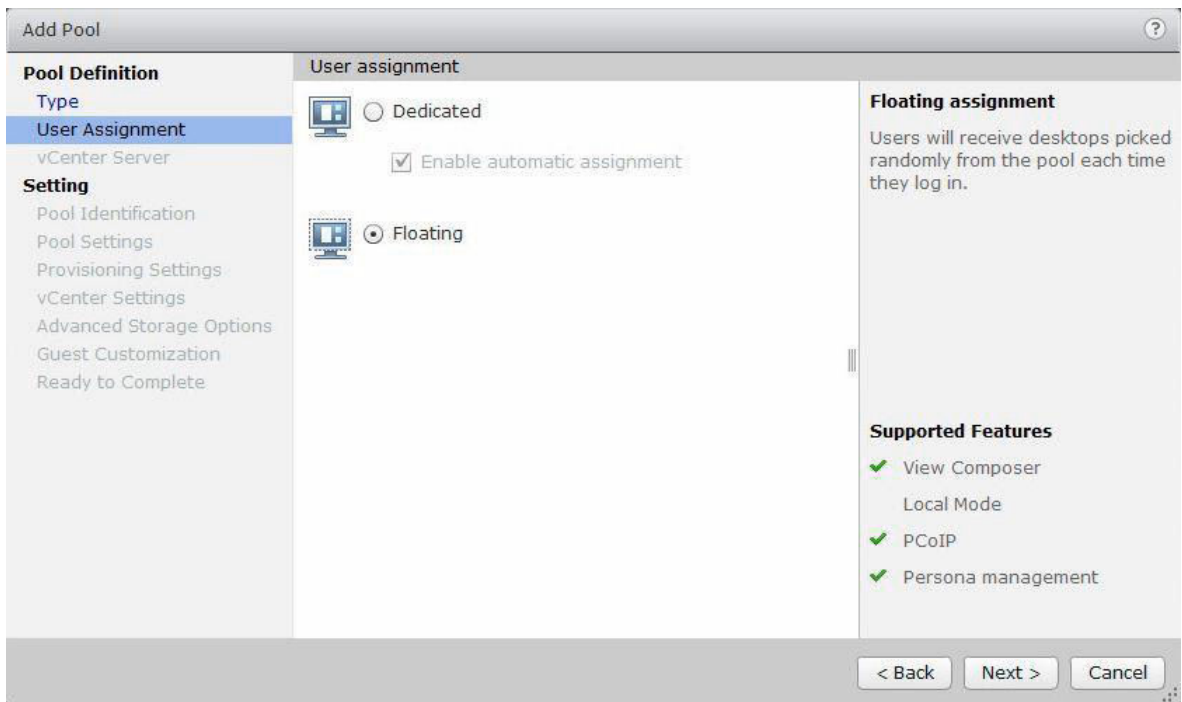
4. Select **View composer linked clones** and click **Next**.
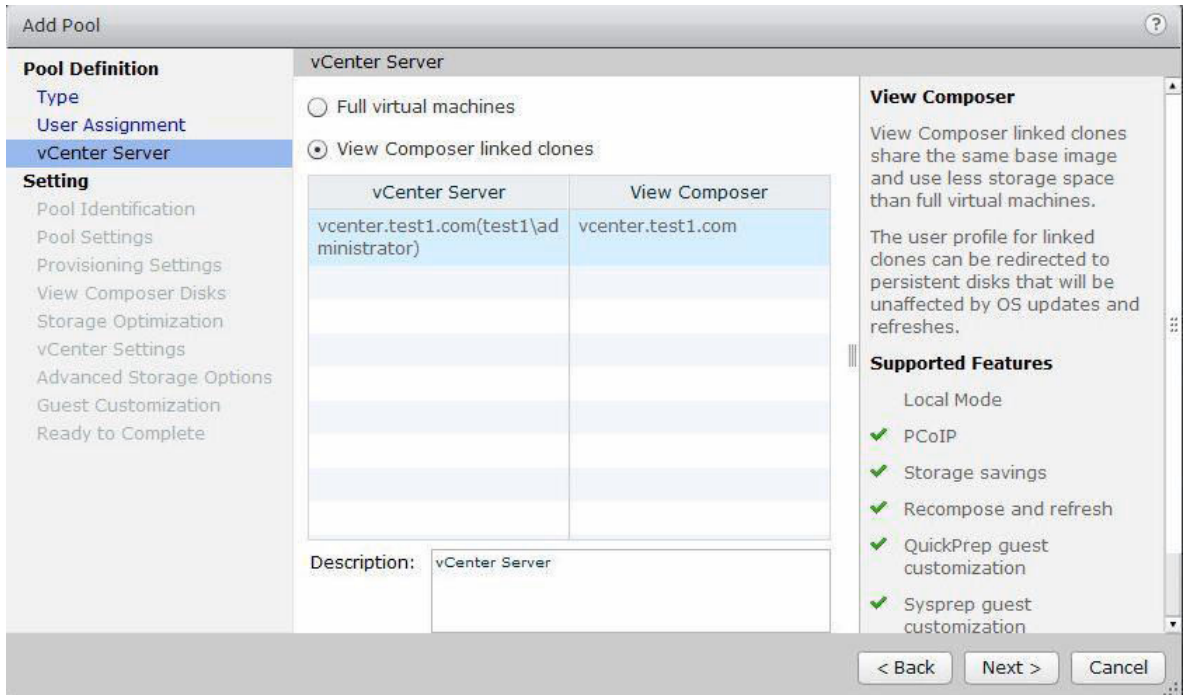
5. Type an appropriate Pool ID and display name click **Next**.
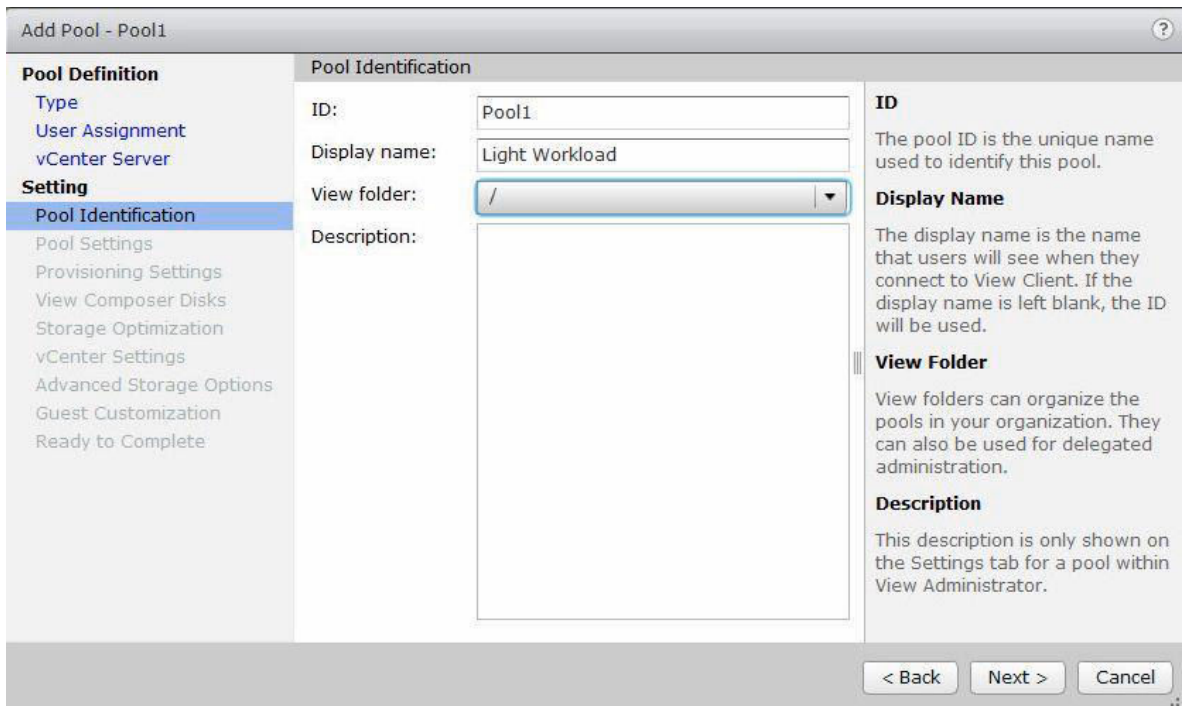
6. Accept the default pool settings and click **Next**.
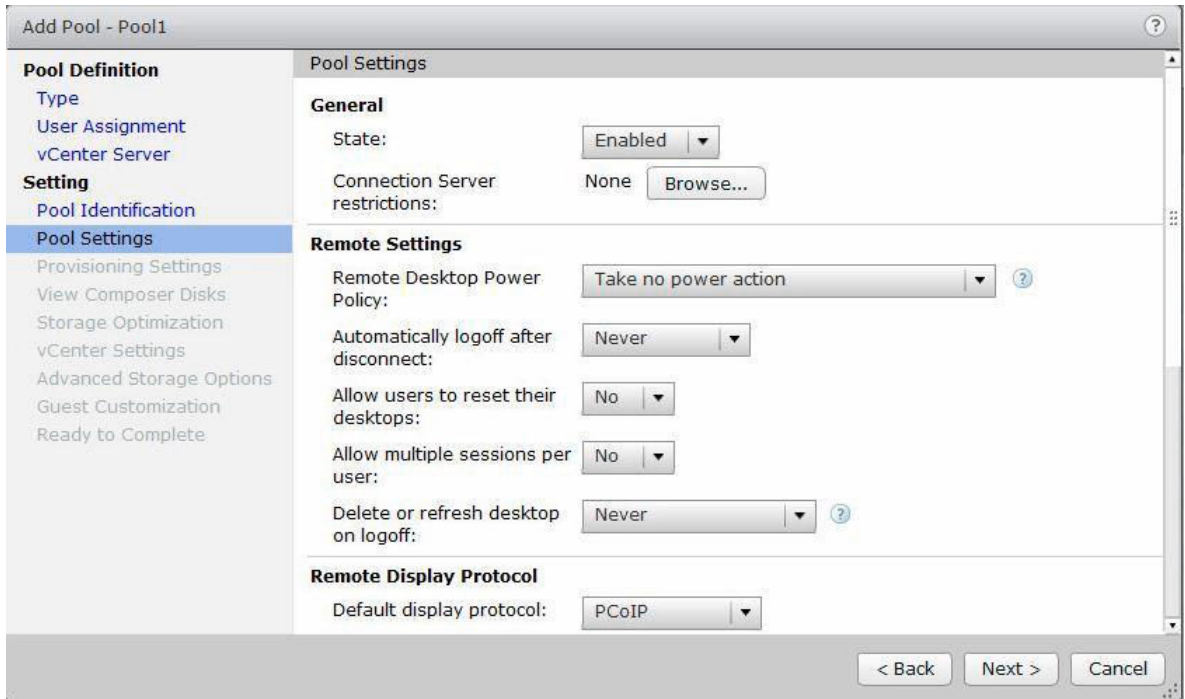
7. Type an appropriate naming pattern for the desktop pool, and under pool sizing, specify the number of desktops you want to deploy in a pool and click **Next**.
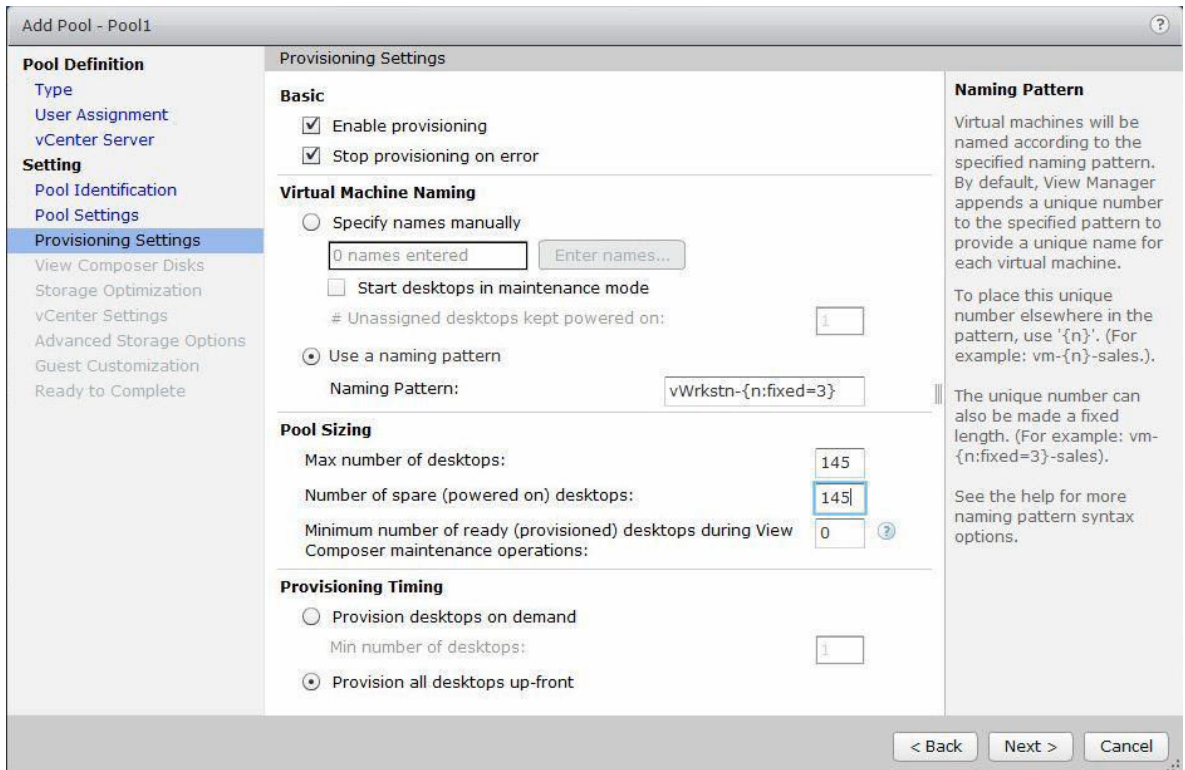
8. Change disposable disk file size to 2500 MB and click **Next**.

9. Leave default settings as is, and then click **Next**.

Add Pool - Pool1

Pool Definition
  Type
  User Assignment
  vCenter Server
Setting
  Pool Identification
  Pool Settings
  Provisioning Settings
  View Composer Disks
  Storage Optimization
  vCenter Settings
  Advanced Storage Options
  Guest Customization
  Ready to Complete

Storage Optimization

Replica disks

☐ Select separate datastores for replica and OS disk.

Select Replica Disk Datastores

⚠ Fast NFS Clones (VAAI) will be unavailable if the Replica disks are stored separately from the OS disk.

Storage Optimization

Storage can be optimized by storing different kinds of data separately.

Replica disks

This option enables control over the placement of the replica that linked clones use as their base image.

It is recommended that a high performance datastore be chosen for these images. Depending on your hardware configuration, storing replicas on a separate datastore might create a single point of failure.

< Back   Next >   Cancel

10. To select a base image from which you want to deploy desktop pool, click the **Browse** button associated with **Parent VM.**

Add Pool - Pool1

Pool Definition
- Type
- User Assignment
- vCenter Server

Setting
- Pool Identification
- Pool Settings
- Provisioning Settings
- View Composer Disks
- Storage Optimization
- **vCenter Settings**
- Advanced Storage Options
- Guest Customization
- Ready to Complete

vCenter Settings

Default Image

① Parent VM: `<Click Browse...>` [Browse...]

② Snapshot: `<Click Browse...>` [Browse...]

Virtual Machine Location

③ VM folder location: `<Click Browse...>` [Browse...]

Resource Settings

④ Host or cluster: `<Click Browse...>` [Browse...]

⑤ Resource pool: `<Click Browse...>` [Browse...]

⑥ Datastores: Click Browse to select [Browse...]

[< Back] [Next >] [Cancel]

Select Parent VM

Select the virtual machine to be used as the parent VM for this desktop pool

☐ Show all parent VMs ⑦   Filter ▼ [   ] [Find] [Clear] ⟳

Name	Path
GoldImage	/Austin/vm/GoldImage
L-1	/Austin/vm/L-1
L-10	/Austin/vm/L-10
L-2	/Austin/vm/L-2
L-3	/Austin/vm/L-3
L-4	/Austin/vm/L-4
L-5	/Austin/vm/L-5
L-6	/Austin/vm/L-6
L-7	/Austin/vm/L-7
L-8	/Austin/vm/L-8
L-9	/Austin/vm/L-9

[OK] [Cancel]

11. Similar to task 10, click **Browse** and select the snapshot of the base image and click **OK**.

Snapshot	Time created	Description	Path	Published
Base	5/16/2013 9:36:1	No Softwares Inst	/Base	No
Before MCAfee	5/16/2013 11:30:		/Base/Before MCA|	No
Light Run	5/17/2013 9:18:3		/Base/Before MCA|	No

Select default image

Parent VM: /Austin/vm/GoldImage

Snapshot:

Snapshot Details

OK   Cancel
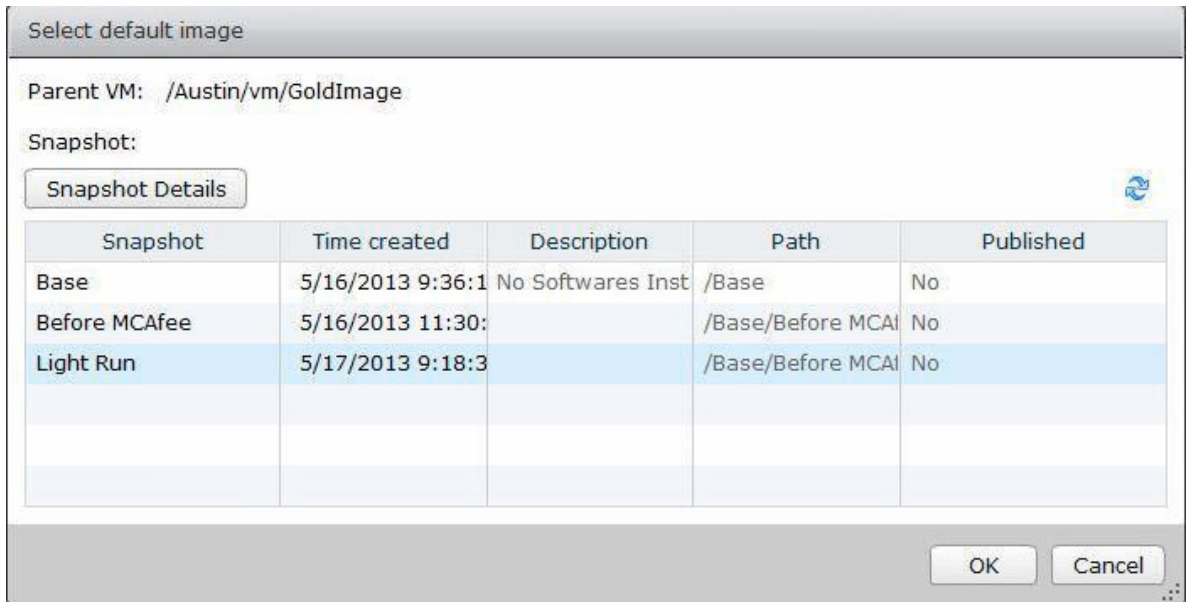
12. Similar to task 10, click **Browse** and select appropriate folder to store the VM, and then click **OK**.

VM Folder Location

Select the folder to store the VM

☐ Show all folders ⑦

▶ 🏢 Austin

OK   Cancel
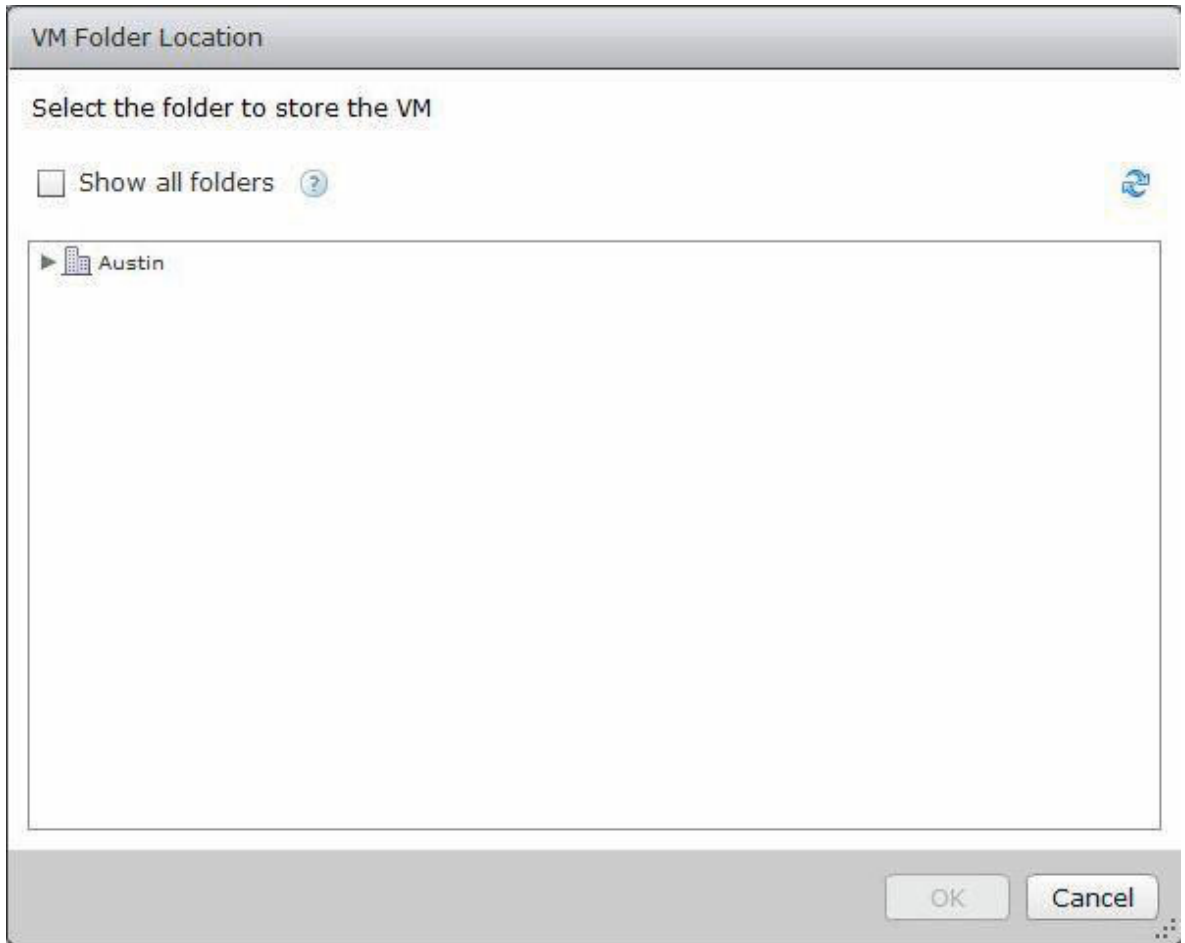
13. Similar to task 10, click **Browse** and select appropriate host or cluster where you want to deploy desktop pool, and then click **OK**.
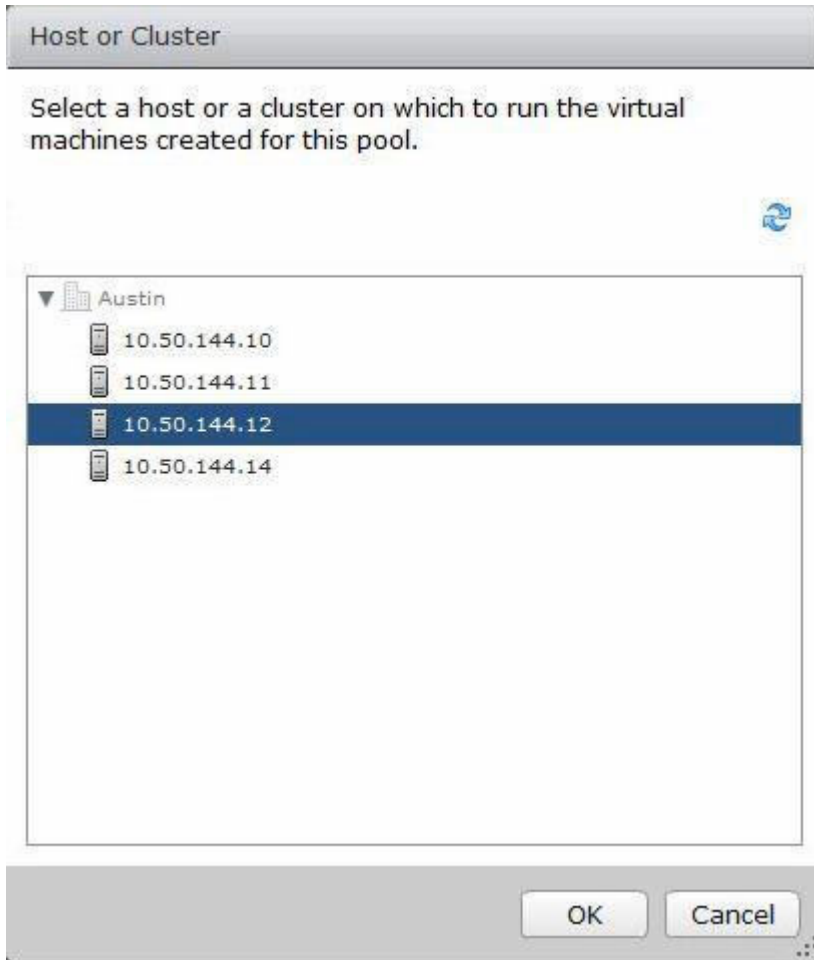
14. Similar to task 10, click **Browse** and select the resource pool, and the click **OK**.
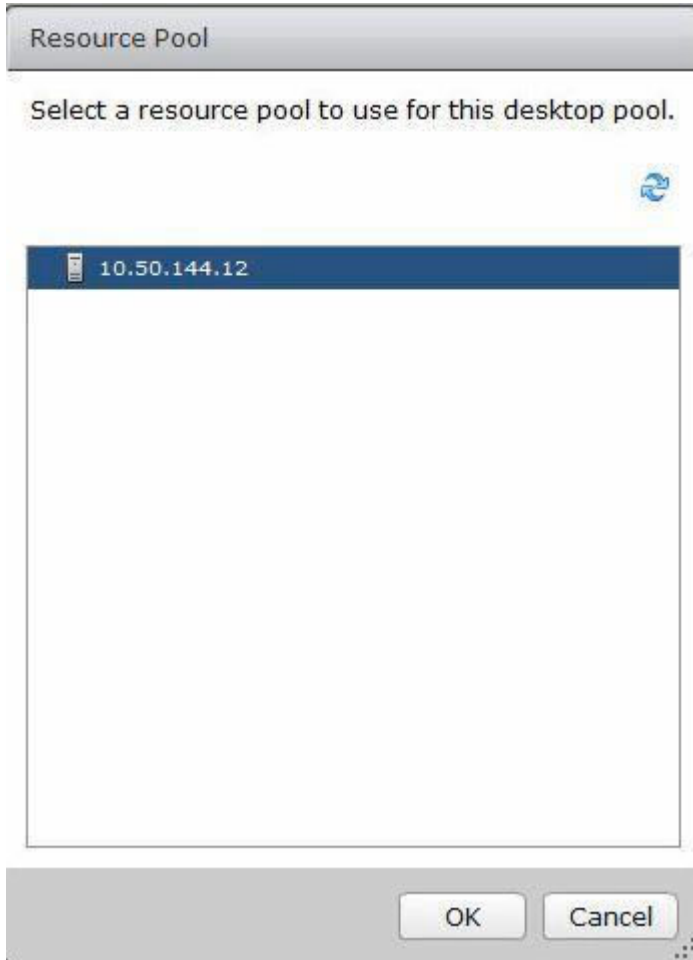
15. Similar to task 10, click **Browse**, select appropriate datastore for the desktop pool, and then click **OK**.
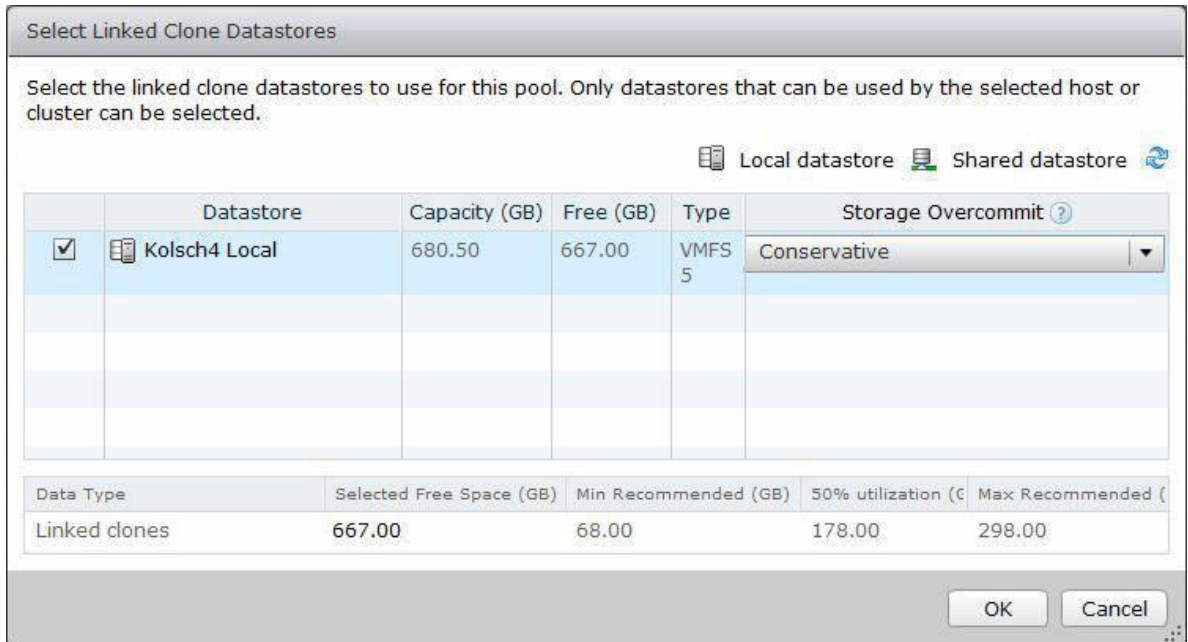
16. After typing data about vCenter Settings, click **Next**.

17. Under the **Advanced Storage Options** section, leave the default settings as is, and then click **Next**.

Add Pool - Pool1

Pool Definition
Type
User Assignment
vCenter Server
Setting
Pool Identification
Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
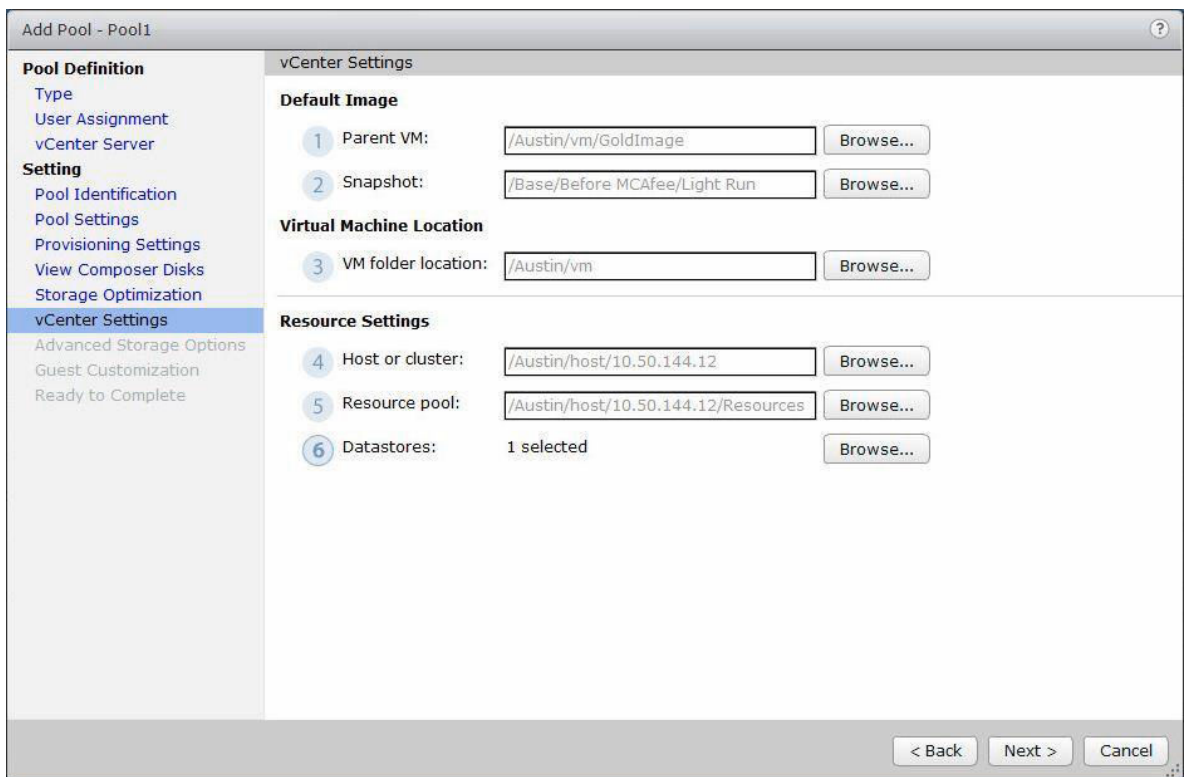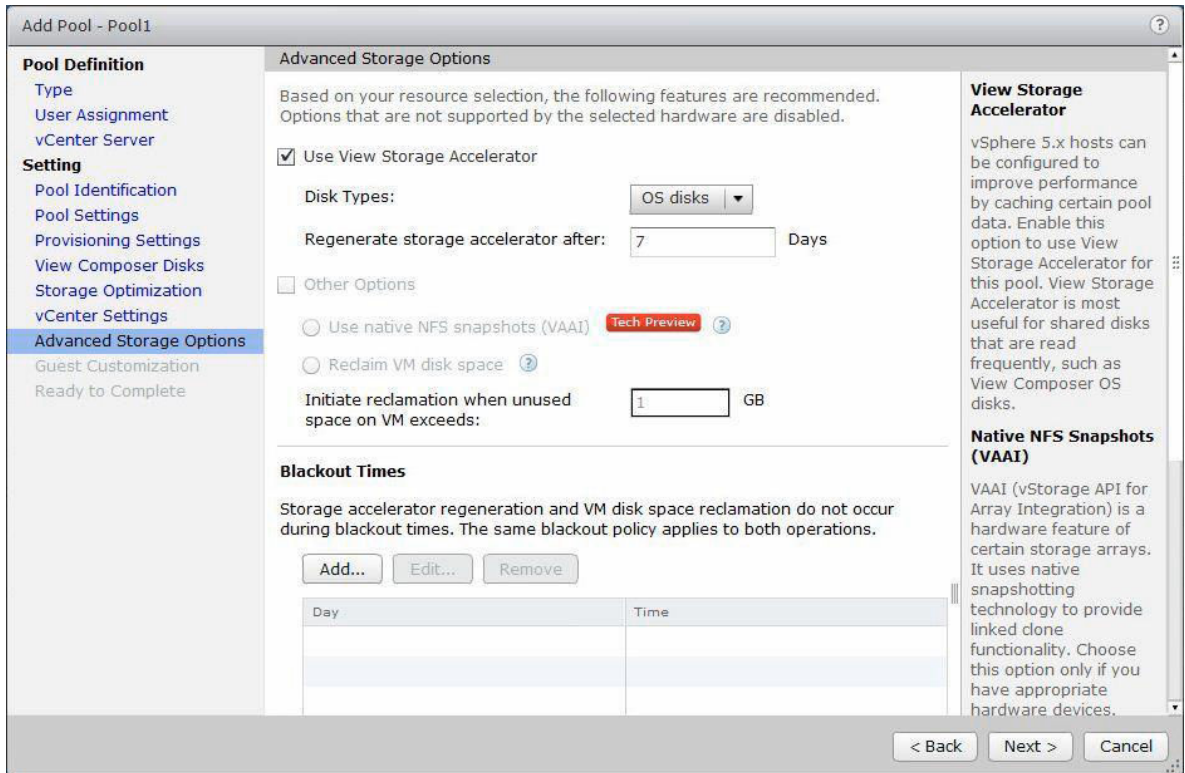Ready to Complete

Advanced Storage Options

Based on your resource selection, the following features are recommended.
Options that are not supported by the selected hardware are disabled.

☑ Use View Storage Accelerator

Disk Types: OS disks ▼

Regenerate storage accelerator after: 7   Days

☐ Other Options

○ Use native NFS snapshots (VAAI) Tech Preview ⓘ

○ Reclaim VM disk space ⓘ

Initiate reclamation when unused   1   GB
space on VM exceeds:

Blackout Times

Storage accelerator regeneration and VM disk space reclamation do not occur
during blackout times. The same blackout policy applies to both operations.

Add...   Edit...   Remove

Day	Time

View Storage Accelerator

vSphere 5.x hosts can be configured to improve performance by caching certain pool data. Enable this option to use View Storage Accelerator for this pool. View Storage Accelerator is most useful for shared disks that are read frequently, such as View Composer OS disks.

Native NFS Snapshots (VAAI)

VAAI (vStorage API for Array Integration) is a hardware feature of certain storage arrays. It uses native snapshotting technology to provide linked clone functionality. Choose this option only if you have appropriate hardware devices.

< Back   Next >   Cancel

18. In the **Guest Customization** section, select the appropriate AD container for the desktop pool by clicking **Browse** and type appropriate data in the fields (if you planning to use any scripts for desktop pool) and click **Next**.
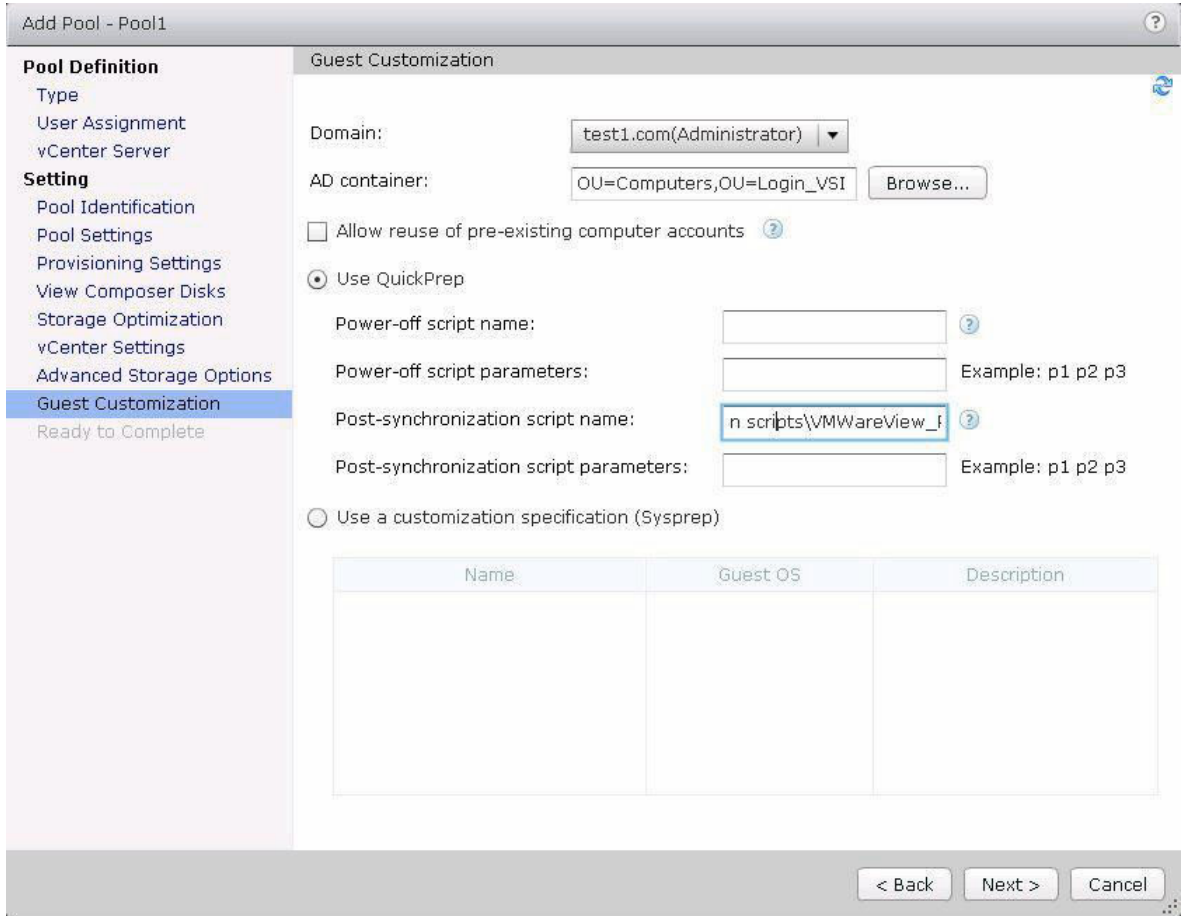
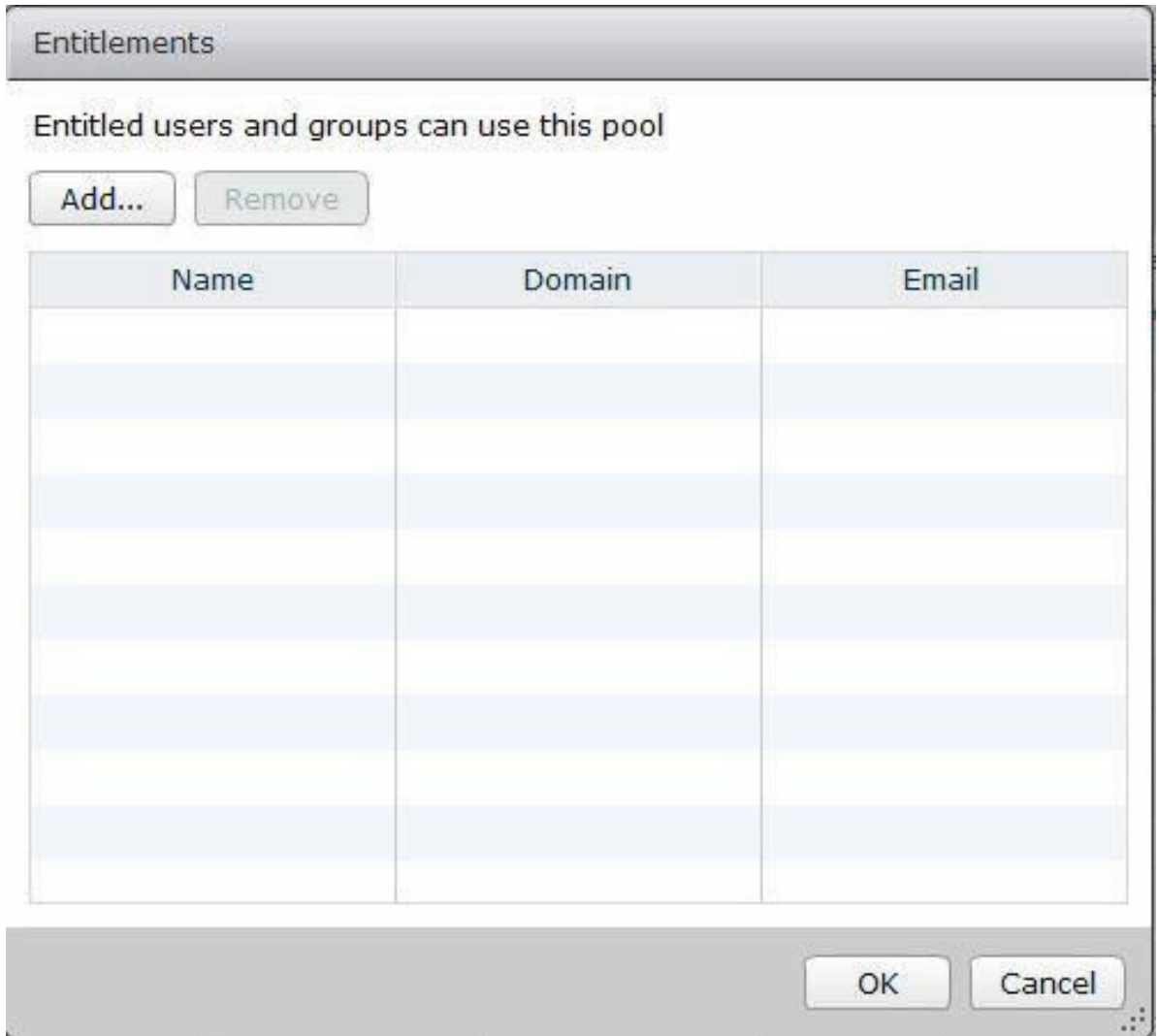**19.** Review the settings and click **Finish** to deploy desktop pool.
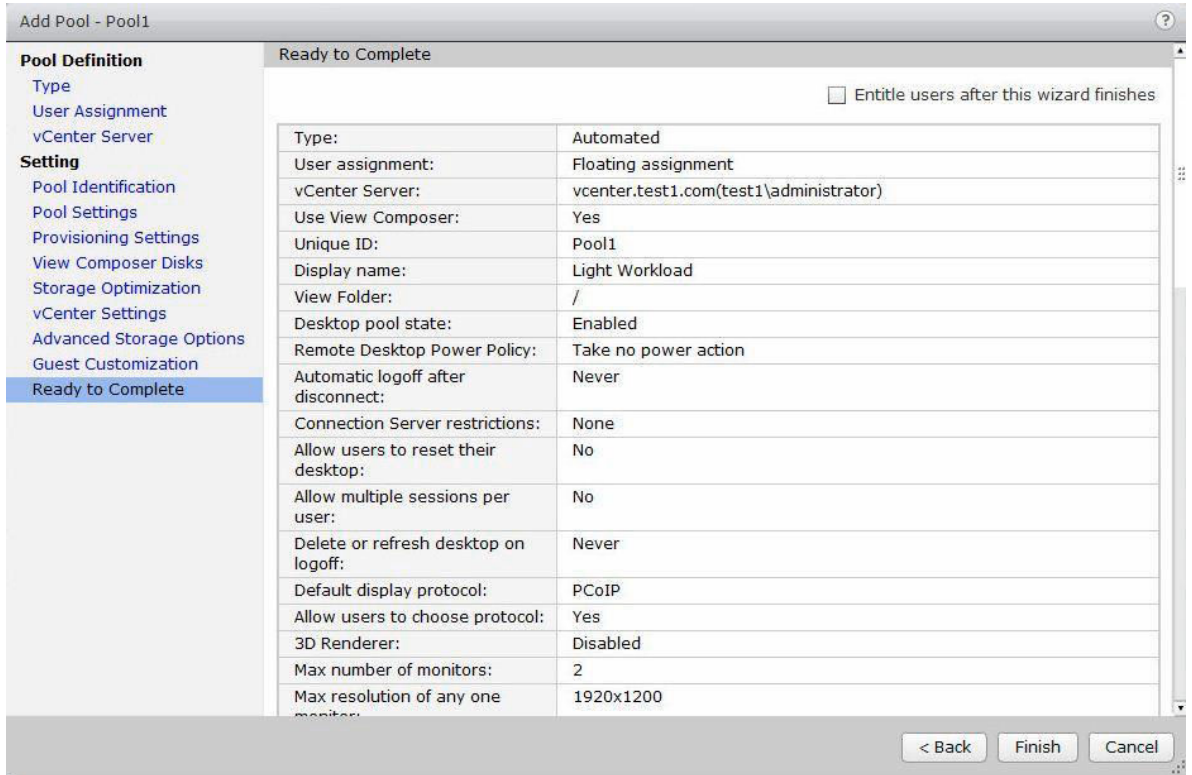
20. To entitle a pool to users, in the left pane, under **Inventory**, click **Pool**, and then click **Entitlements**.
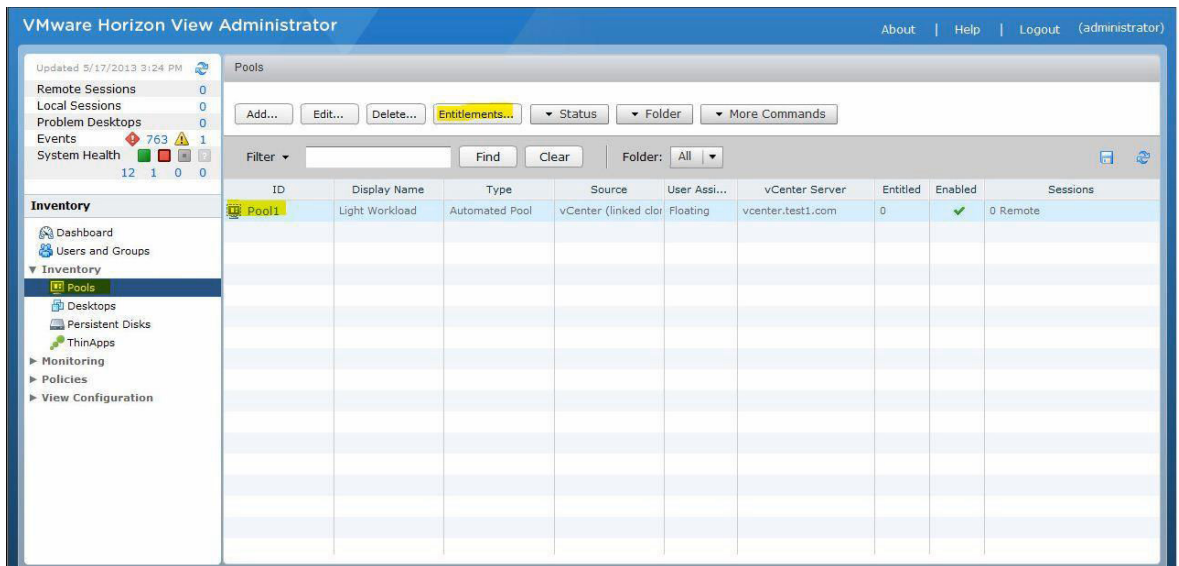
21. Click **Add**.

22. Select appropriate users or groups to which you want to entitle the desktop pool and click **OK**.

This Completes VMware view desktop pool deployment and entitlement process.

VMware View Client

For a VMware View environment, the first task in client-side software installation process is to use any web browser to go to **https://<IP Address of View Connection Server>**

Note that any proxies that are in place to facilitate internet access may need to be disabled or bypassed to allow navigation to this IP address. The installation of the View client is then completed by using the process described here.

The next task is to download and run the View client (Local Mode typically not required). The installation is then completed by using the process described later in the guide.

1. Click **Next**.
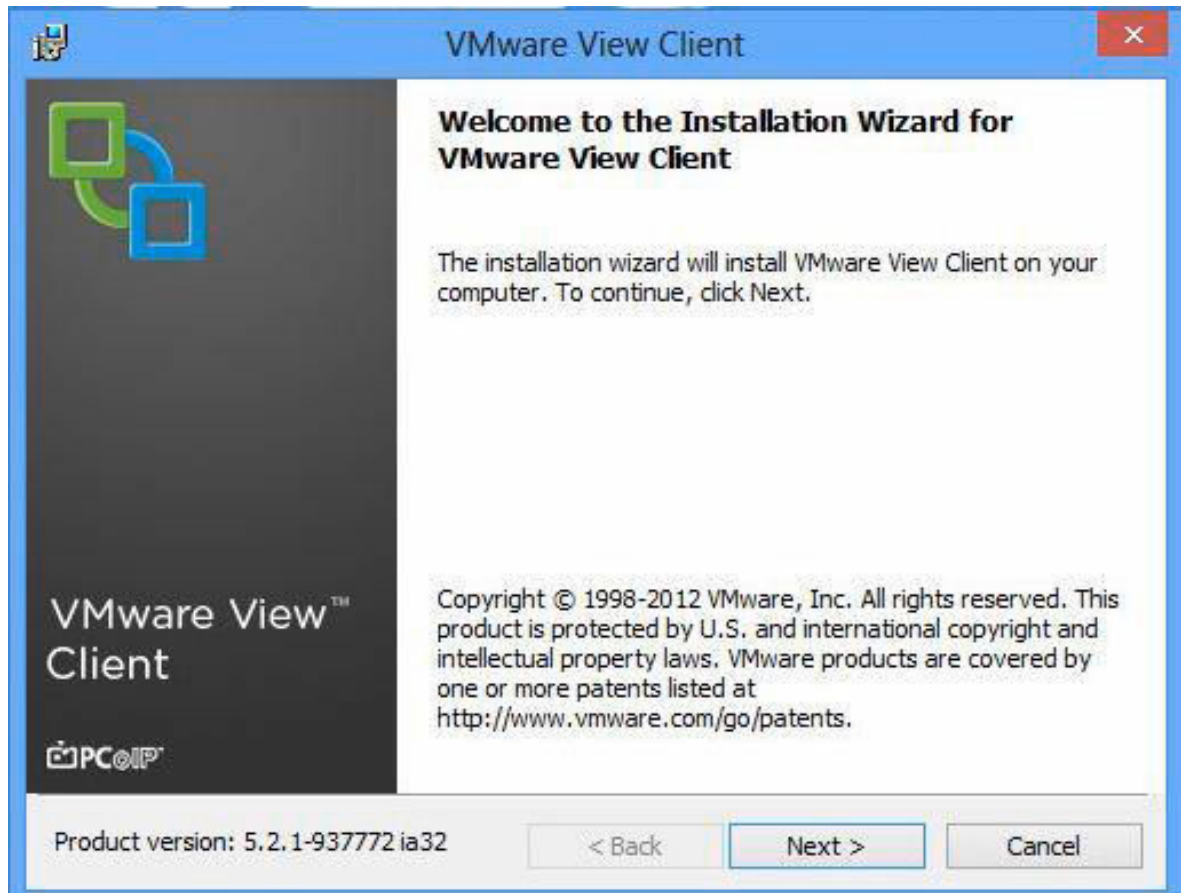
2. Accept the End User License Agreement, click **Next**.

3. Complete the custom setup tasks (typically defaults settings can be retained), and then click **Next**.
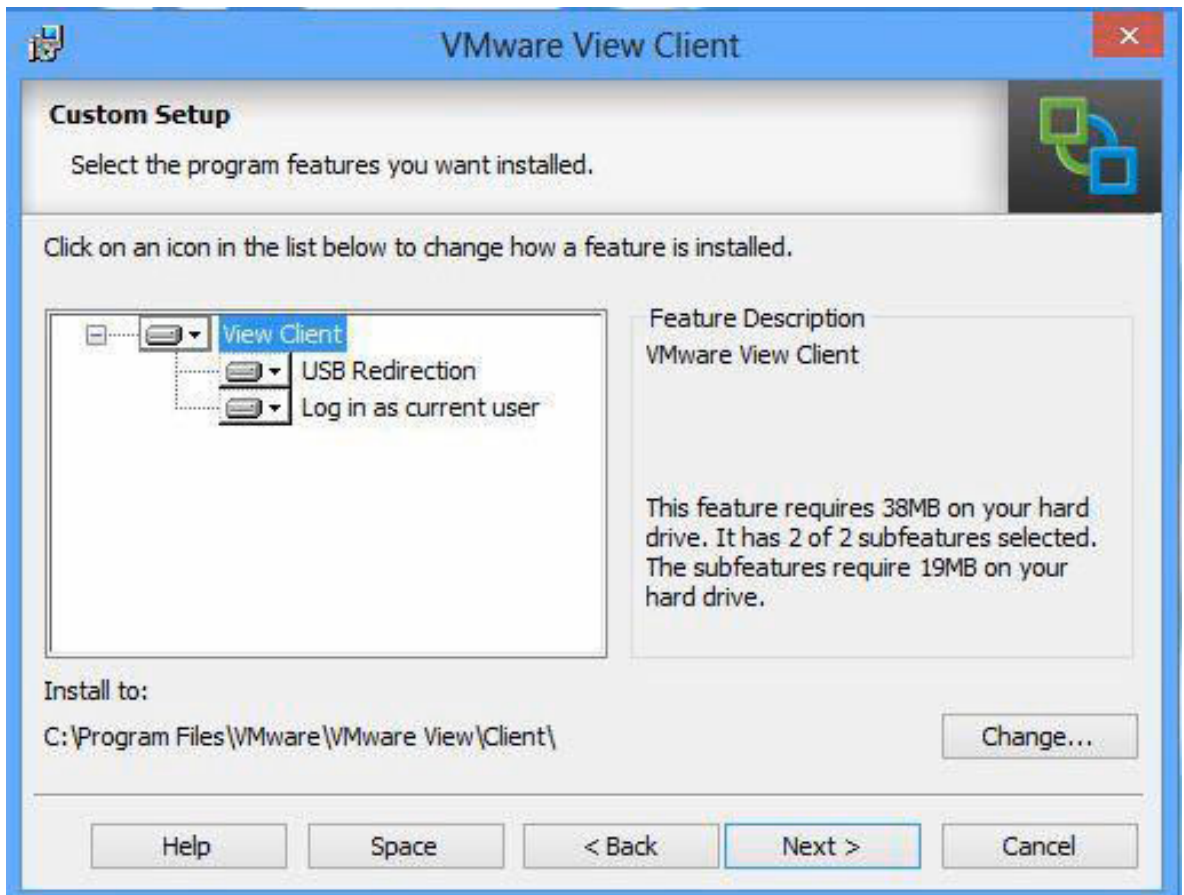
4. Configure default View Connection Server (if required; solution will still function if this field is left blank), click **Next**.
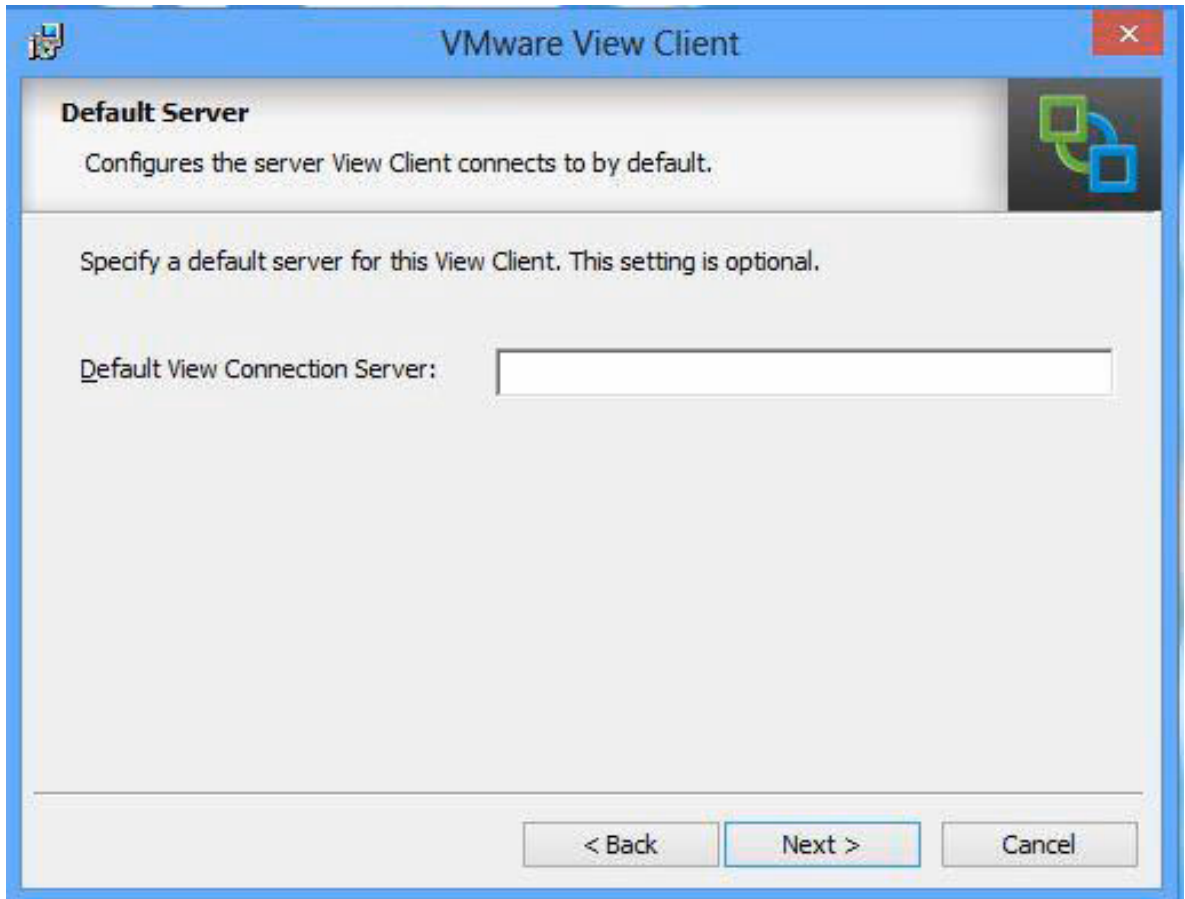
5. Configure "Login as current user" if required (typically this is not required but this is implementation-specific). Click **Next**
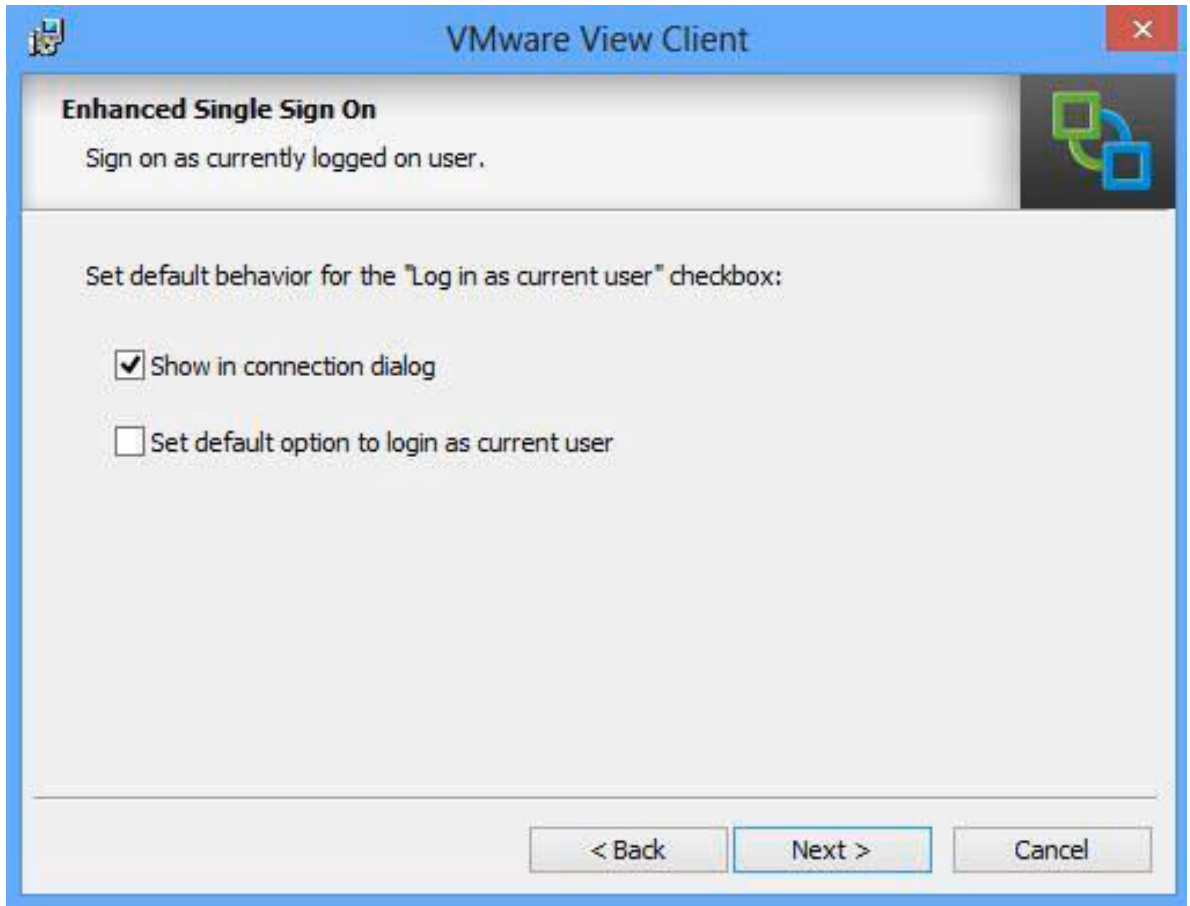
6. Configure shortcuts or Start menu as required. Click **Next**.
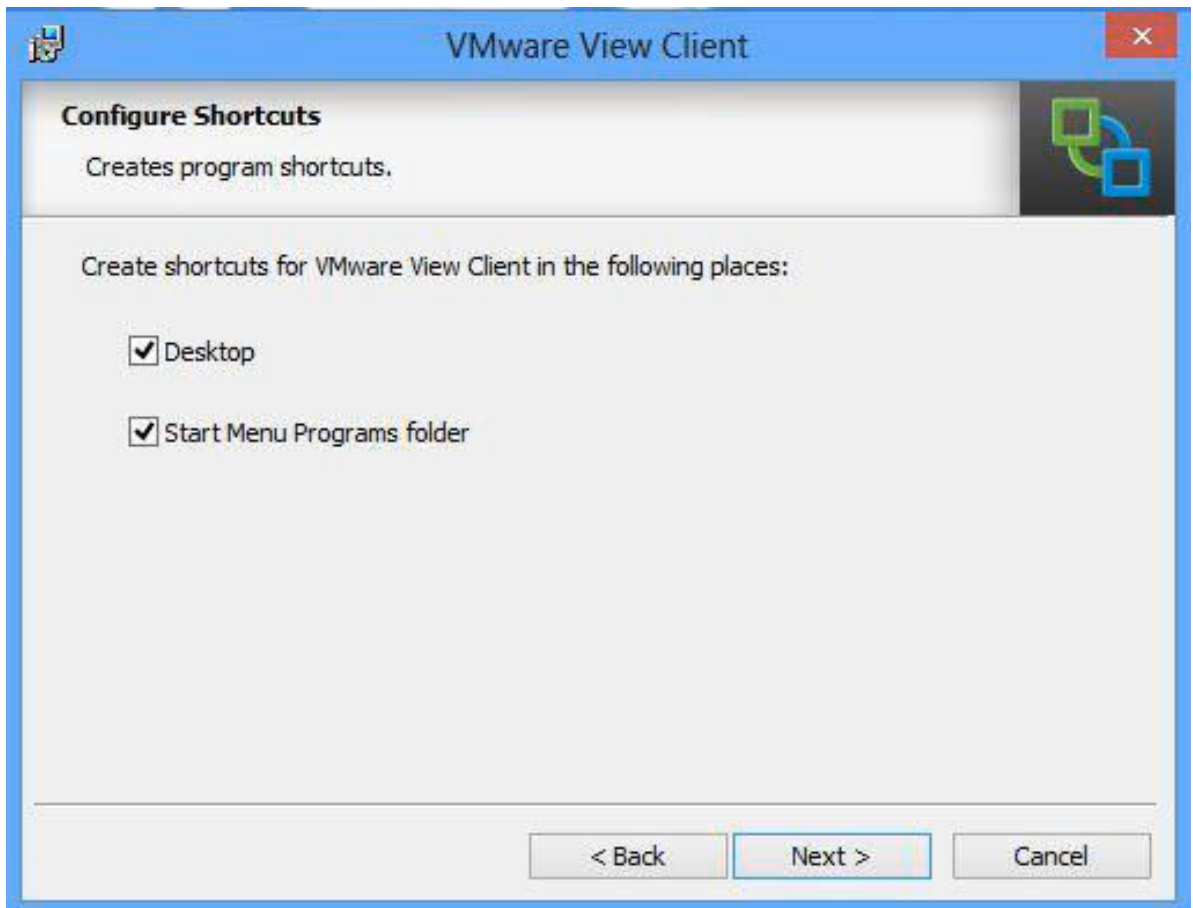
7. Click **Next** to complete installation.
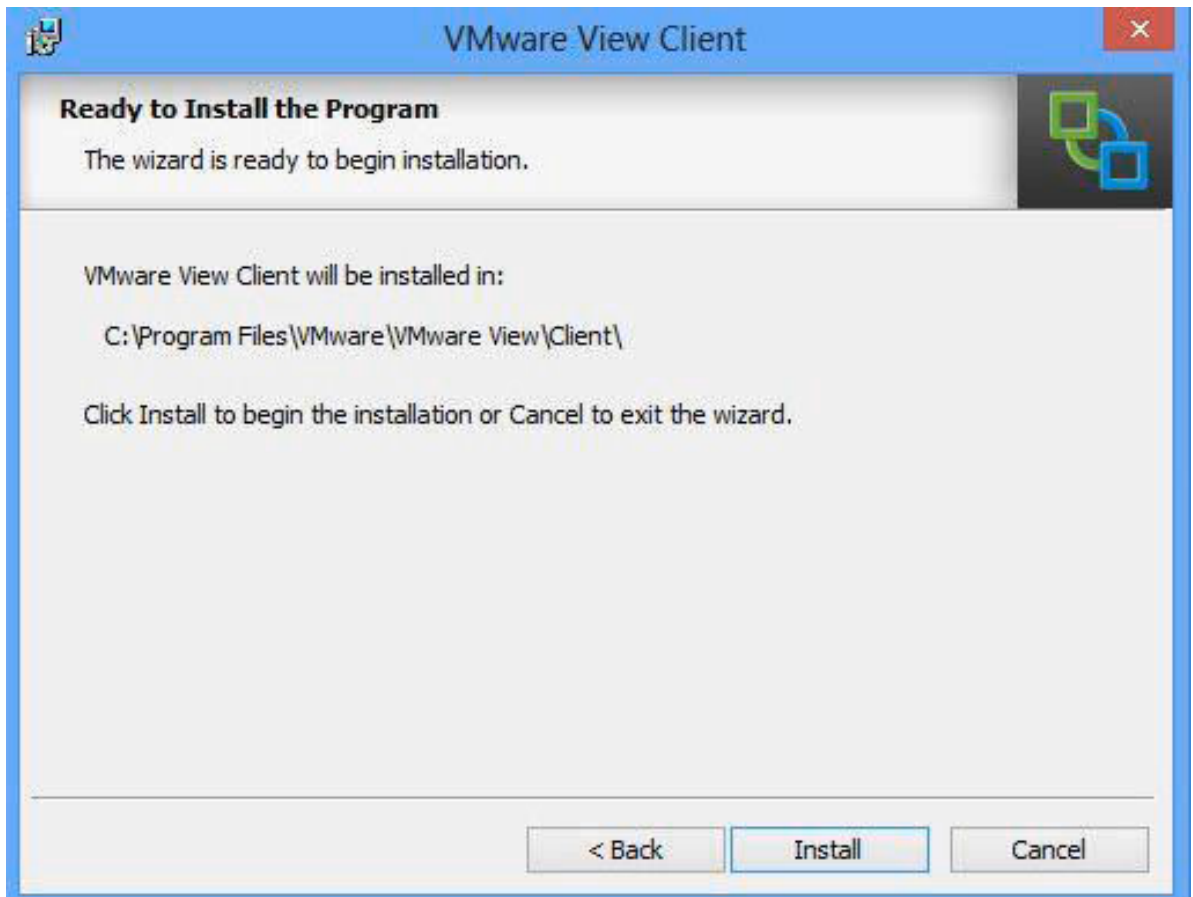
8. Endpoint device needs to be restarted. Restart immediately or later as appropriate.

5
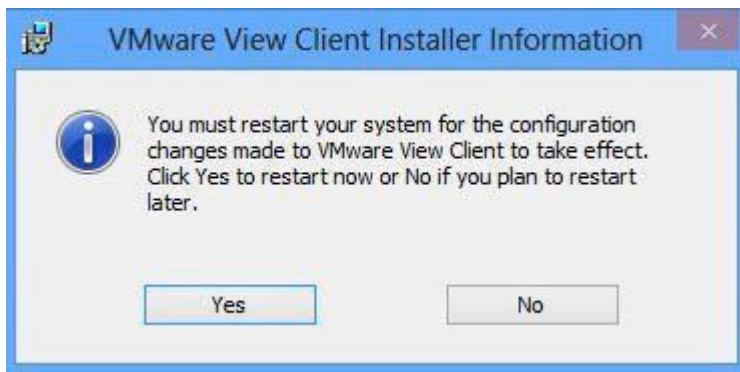
Upgrading Existing Evo:Rail Appliance

Update

Complete these steps to update deployed and configured EVO:RAIL appliances. This process will involve updating the EVO:RAIL software, the vCenter software and the ESXi software. You can upgrade to 1.0.2 directly from 1.0.0 or from 1.0.1.

In addition, EVO:RAIL Release 1.0.0 or 1.0.1 customers will have to update their Log Insight license, as described in the support section.

Four files are needed to upgrade to EVO:RAIL Release 1.0.2 from Release 1.0.0. If you are upgrading from 1.0.1 to 1.0.2, only two files are needed - you can skip vCenter Server and ESXi.

All files **must** be uploaded from http://my.vmware.com in to a directory accessible from your EVO:RAIL management workstation/laptop.

- vmware-marvin-1.0.2-2456370.rpm
- VMware-vCenter-Server-Appliance-5.5.0.20200-2183109-updaterepo.zip
- EVO_RAIL_1.0.2-2456370.zip
- ESXi550-201410001.zip

Update EVO:RAIL RPM

- Create a snapshot or backup copy of the vCenter Server virtual appliance. This can be accomplished by connecting to VMware vSphere Web Client via **https://<hostname>:9443**, where <hostname> is the IP address or hostname of EVO:RAIL.
- Verify that you are logged in to EVO:RAIL as administrator@vsphere.local or as a user with administrator privileges. The URL format is Error! Hyperlink reference not valid.,

  where <hostname> is the IP address or hostname of the EVO:RAIL management interface.
- Complete these update steps in the same order of their occurrence.

This step is needed for all EVO:RAIL upgrades.

1. From EVO:RAIL Management, click the **Config** icon in the left menu bar.
2. In the upper right corner of the configuration page, in the **Offline Updates** section, click the **Upload** link, and browse to **vmware-marvin-1.0.2-2456370.rpm.**

OFFLINE UPDATES

No update files are ready to install. Click "Upload" to put a new update file on EVO:RAIL. Then click "Check now" to see if any uploaded files are applicable.

Upload

Last checked: 10/20/2014, 9:53:04 AM   Check now
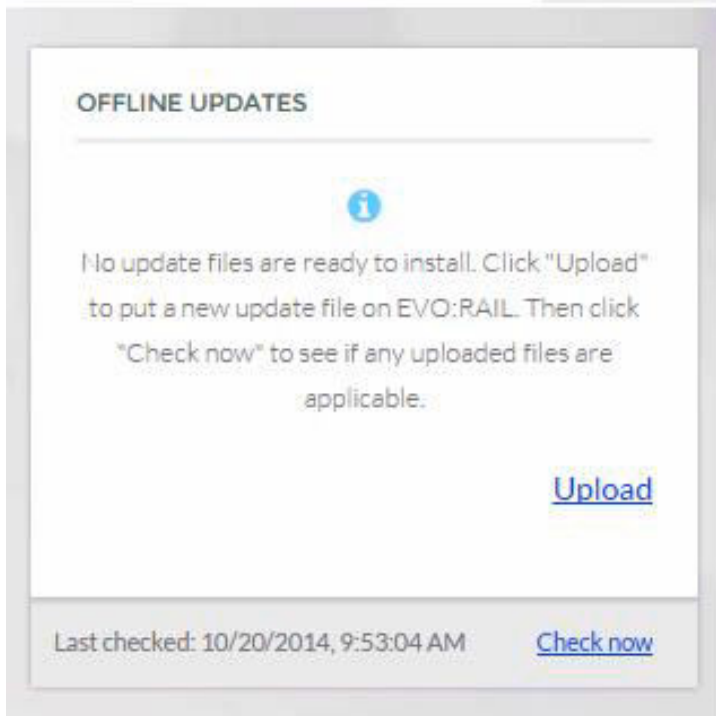
3. Click **Open** to select the file.

    EVO:RAIL uploads the .rpm file and displays a confirmation message.
4. Click the **Check now** link.
5. If the EVO:RAIL check succeeds, the **Offline Updates** box changes to allow you to perform the update.
6. Move the **Offline Updates** switch from **No** to **Yes**.
7. Click the **Update** button.
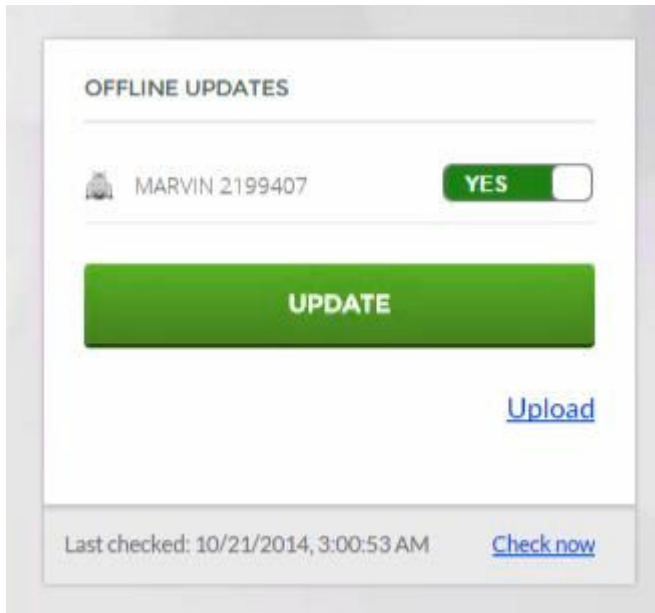
After the update is complete, you will receive a notification that you are disconnected from EVO:RAIL management.

8. It can take up to five minutes for the new EVO:RAIL RPM to initialize.
9. After EVO:RAIL UI restarts, you will be prompted to log in again.

Update vCenter Server

This step is needed for customers upgrading from EVO:RAIL Release 1.0.0. It is not needed for customers upgrading from 1.0.1.

1. From the EVO:RAIL Management, click the **Config** icon upper left corner.
2. In the **Offline Updates** section, click the **Upload** link, and browse to **VMware-vCenter-Server-Appliance-5.5.0.20200-2183109-updaterepo.zip**.
3. Click **Open** to select the file.
   • EVO:RAIL uploads the .zip file and displays a confirmation dialog box.
4. Click the **Check now** link.
5. If the EVO:RAIL check succeeds, the **Offline Updates** box changes to allow you to perform the update.
6. Move the Offline Updates switch from **No** to **Yes**.
7. Click the **Update** button.
   After the update is complete, the vCenter Server VM will restart automatically. You will receive a notification that you disconnected from EVO:RAIL management.
8. It can take up to 15 minutes for the vCenter VM to reboot and for all of services to initialize.
9. After EVO:RAIL UI restarts, you will be prompted to log in again.

Update EVO:RAIL VIB

To update EVO:RAIL:

1. From the EVO:RAIL Management, click the **Config** icon in the upper left corner.
2. In the **Offline Updates** section, click the **Upload** link, and browse to **EVO_RAIL_1.0.2-2456370.zip**.
3. Click **Open** to select the file.
4. EVO:RAIL uploads the .zip file and displays a confirmation dialog box.
5. Click the **Check now** link.
6. If the EVO:RAIL check succeeds, the Offline Updates box changes to allow you to perform the update
7. Click the **Update** button.

   The update time depends on the quantity of VMs and might take a few hours for completion. However, the appliance will function as normal during that time.

Update ESXi

This step is needed for customers upgrading from EVO:RAIL Release 1.0.0; it is not needed for customers upgrading from 1.0.1.

1. From the EVO:RAIL Management, click the **Config** icon on the left menu bar.
2. In the Offline Updates box, click the **Upload** link, and browse to **ESXi550-201410001.zip**.
3. Click **Open** to select the file.
   - EVO:RAIL uploads the .zip file and displays a confirmation dialog box.
4. Click the **Check now** link.
5. If the EVO:RAIL check succeeds, the Offline Updates box changes to allow you to perform the update.
6. Move the Offline Updates switch from **No** to **Yes**.
7. Click the **Update** button.

   The update time depends on the quantity of VMs and might take a few hours for completion. However, the appliance will function as normal during that time.