

# Wyse Datacenter Appliance XC for VMware View

Deployment Guide

Dell Wyse Solutions Engineering November 2014

# Revisions

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## 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.

## 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**.

NTNX-ESXI-C1	Home		-
Hypervisor St	Home Health		
	VM Storage		
F	Hardware Data Protectio	n	
Storage Sumr	Analysis Alerts		

Figure 1 Nutanix Web Console

2

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

Create Container	×
Enter a name for your container and select a storage pool for it. You can mount the container as an NFS datastore for all hosts, or select individual hosts.	
NAME	
STORAGE POOL	

Figure 2 Create Container Wizard

5

Create Container > Create Storage I	Pool	×
A storage pool is a group of physical disks frr recommends creating a single storage pool t cluster.	om one or more tiers. Nutanix to manage all physical disks within the	
NAME SP1		
CAPACITY		
12.32 TB	Use unallocated capacity	•

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.

NTN X-ESXI-C1	Storage v	•	N	Q   ‡ -
Overview · Dia	agram • Table			+ Container

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**.

		Q 🗘 🗸
OPS	Health	HTTP Proxies Licensing Filesystem Whitelists Management Servers
6:00pm		Prism Central Registration Pulse
Bps	VMs	NTP Servers Remote Support
	Hosts	SMTP Server SNMP
6:00pm	Disks	Welcome Banner
) ms	Data Re-	

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.

2	10.50.192.43 - vSphere Clie	ent					
File	File Edit View Inventory Administration Plug-ins Help						
	New	•	entory 👂 🛅 Inventory				
	Deploy OVF Template						
	Export	•					
	Report	•	kbcmfEsxi VMware ESXi, 5.5.0, 1230948				
	Browse VA Marketplace		Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users &				
	Print Maps	F					
	Exit		What is a Host?				
			A host is a computer that uses virtualization software, such as ESX or ESXi, to run virtual machines. Hosts provide the CPU and memory resources that virtual machines use and				

Figure 6 Deploy OVF Template

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

🛃 Deploy OVF Template		_ 🗆 🗵
Source Select the source location.		
Source OVF Template Details Name and Location Storage Disk Format Ready to Complete	Deploy from a file or URL Z:\Software\/\m\Ware\/\Sphere-ESXi - 5.5\/\Mware-vCenter-Si                 Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.	
Help	< Back Next >	Cancel

Figure 7 Select OVF Template file.



4. Confirm the template details and click Next.

🛃 Deploy OVF Template		<b>_</b>  -	×
OVF Template Details Verify OVF template details	5.		
Source			
OVF Template Details Name and Location	Product:	VMware vCenter Server Appliance	
Storage Dick Format	Version:	5.5.0.20000	
Ready to Complete	Vendor:	VMware Inc.	
	Publisher:	VMware, Inc.	
	Download size:	1.8 GB	
	Size on disk:	3.5 GB (thin provisioned) 125.0 GB (thick provisioned)	
	Description:	VMware vCenter Server Appliance	
		Version 5.5 of VC running on SLES 11	
Help		< Back Next > Cancel	

Figure 8 OVF Template Details



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

🗿 Deploy OVF Template	]	] ×
Name and Location		
Specify a name and loca	tion for the deployed template	
Source	Name:	
Name and Location	VMware vCenter Server Appliance	
Storage	The name can contain up to 80 characters and it must be unique within the inventory folder.	
Disk Format Ready to Complete		
, ,		
Help	< Back Next > Cancel	
		_

Figure 9 vCenter Appliance Name



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

Storage         Source         OVF_Template Details         Name and Location         Storage         Disk Format         Ready to Complete         Image: Drive Type         Capacity         Provisioned         Image: Drive Type         Capacity         Image: Drive Type         Capacity         Image: Drive Type         Capacity         Image: Drive Type         Capacity         Image: Drive Type         Image: Drive Type </th <th>Deploy OVF Template</th> <th></th> <th></th> <th></th> <th></th> <th>_ 🗆 ×</th>	Deploy OVF Template					_ 🗆 ×		
Where do you want to store the virtual machine files?         Source OVF_Template Details Name and Location Storage Disk Format Ready to Complete       Select a destination storage for the virtual machine files:         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned	Storage							
Source OVF Template Details Name and Location Storage Disk Format Ready to Complete       Name       Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Disk Format Ready to Complete       Image: Disk Format Image: Disk Format       Image: Disk Format       I	Where do you want to s	Where do you want to store the virtual machine files?						
Source OVF Template Details Name and Location Storage Disk Format Ready to Complete       Select a destination storage for the virtual machine files:         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Supple         Image: Drive Type       Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free								
OVF Template Details Name and Location Storage Disk Format Ready to Complete       Name       Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin P         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Drive Type       Capacity <t< th=""><th>Source</th><th>Select a destination stor</th><th>age for the virtual</th><th>machine files:</th><th></th><th></th></t<>	Source	Select a destination stor	age for the virtual	machine files:				
Image: Storage Disk Format Ready to Complete       Image: Storage Disk Format Ready to	OVF Template Details Name and Location	Name	Drive Type	Capacity Provision	ed Free T	ype Thin Prov		
Disk Format Ready to Complete	Storage	datastore1 (1)	Non-SSD	128.50 GB 972.00 M	B 127.55 GB \	/MFS5 Supporte		
Ready to Complete         Image: Complete Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Pro         Image: Capacity       Provisioned         Free       Type         Thin Pro         Image: Capacity       Provisioned         Free       Type         Thin Pro         Image: Capacity       Provisioned         Free       Type         Thin Pro       Capacity         Capacity       Provisioned         Free       Type         Capacity       Capacity	Disk Format	datastore2 (28)	Non-SSD	404.25 GB 643.07 G	B 153.34 GB \	/MFS5 Supporte		
Image: Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Product         Image: Select a datastore:         Name         Drive Type         Capacity         Provisioned         Free         Type         Thin Product         Image: Select a datastore:         <	Ready to Complete							
Image: Disable Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Product         Image: Provision of the second								
Image: Disable Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Pro         Image: Drive Type       Capacity         Provisioned       Free         Thin Pro         Image: Drive Type       Capacity         Provisioned       Free         Thin Pro         Image: Drive Type       Capacity         Image: Drive Type       Capacity     <								
Image: Disable Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Pro         Image: Drive Type       Capacity         Provisioned       Free         Thin Pro         Image: Drive Type       Capacity         Provisioned       Free         Thin Pro         Image: Drive Type       Capacity         Image: Drive Type       Capacity     <								
Image: Disable Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Pro         Image: Drive Type       Capacity         Provisioned       Free         Thin Pro         Image: Drive Type       Capacity         Provisioned       Free         Thin Pro         Image: Drive Type       Capacity         Image: Drive Type       Capacity     <								
Image: Disable Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Pro         Image: Provision of the second seco								
Disable Storage DRS for this virtual machine         Select a datastore:         Name       Drive Type         Capacity       Provisioned         Free       Type         Thin Pro         Image: Select a datastore:         Image: Select a datastore: <t< td=""><td></td><td>•</td><td></td><td></td><td></td><td>•</td></t<>		•				•		
Select a datastore:         Name       Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Image state state state       Image: Image state state state       Image state state       Image state state       Image state			C. For this cistual a					
Select a datastore:          Name       Drive Type       Capacity       Provisioned       Free       Type       Thin Provisioned         Image: Select a datastore:       I		Disable Storage Dr	co for this virtual fr	iad inte				
Name     Drive Type     Capacity     Provisioned     Free     Type     Thin Provisioned       Image: Marking the state of the state o		Select a datastore:						
Help Cancel		Name	Drive Type	Capacity Provisioned	Free Ty	pe Thin Provi		
Help Cancel								
Help Cancel								
Help < Back Cancel								
Help Cancel								
Help < Back Cancel								
Help < Back Cancel								
Help < Back Cancel								
Help <a>Reack</a> <a>Reack</a> <a>Cancel</a>								
Help <a>Kext &gt; Cancel</a>		•				•		
Carcel	Help			< B:	ack Next >	Cancel		
					Next >	Cancel		

Figure 10 Select Storage



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

🛃 Deploy OVF Template				
<b>Disk Format</b> In which format do you wa	ant to store the virtual disks?			
Source OVF Template Details Name and Location Storage Disk Format Ready to Complete	Datastore: Available space (GB): Thick Provision Lazy Zero Thick Provision Eager Zero Thin Provision Thin Provision	datastore 1 (1) 127.6 ed bed		
Help			< Back Ne	ext > Cancel

Figure 11 Disk Format



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

Deploy OVF Template		
Ready to Complete Are these the options you	want to use?	
Source OVF Template Details Name and Location Storage Disk Format Ready to Complete	When you click Finish, the deploy Deployment settings: OVF file: Download size: Size on disk: Name: Host/Cluster: Datastore: Disk provisioning: Network Mapping: Network Mapping:	yment task will be started. Z:\Software\VmWare\VSphere-ESXi -5.5\VMware-vCente 1.8 GB 3.5 GB VMware vCenter Server Appliance kbcmfEsxi. datastore1 (1) Thin Provision "Network 1" to "VM Network"
Help		< Back Finish Cancel

Figure 12 Finish OVF Deployment Wizard

The vCenter Appliance deployment process will now start.

🛃 6% Deploying VMware vCenter Server Appliance	
Deploying VMware vCenter Server Appliance	
Deploying disk 1 of 2	
9 minutes remaining	
Close this dialog when completed	Cancel

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.

2 10 50 192 43 - vSohere Client							
Fle Edit View Inventory Administration Plug-ins Help							
💽 💽 🗄 Home 🕨 🛃 Inventory 👂 👹 Inventory							
- II 🕨 🚳 🚳 🕼 🖳 🔜 🛶							
Image: Instantial state in the state in	ver Appliance mmary Resource Allocation Performance Events Consola Permissions						
Mware vCenter Server Appliance	WHware vCenter Server Appliance 5.5.8.20000 Build 2063318         To manage your appliance please browse to https://10.50.184.2:5480/         Welcome to WHware vCenter Server Appliance         Quickstart Guide: (How to get vCenter Server running quickly)         1 - Dpen a browser to: https://10.50.184.2:5480/         2 - Accept the EULA         3 - Select the desired configuration mode or upgrade         4 - Follow the wizard         The configured appliance will be ready to use.         In case of upgrade the appliance will reboot and may change         its network address.         SSL thumbprints         vCenter Server: 93:7D:6D:68:79:DB:F4:D7:B7:E6:23:D4:5E:92:5B:CE:6B:69:6F:90         Lookup service: unconfigured         *Login       Use Arrow Keys to navigate         Timezone       (Current:UIC)						

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**.

🗅 VMware vCenter Server App 🗙 💽	
← → C ☆ Lttps://10.50.184.2:5480/#core.Login	☆ =
🗰 Apps 🧧 Foglight - Environment 🗞 Bensen View Administr 🕜 Bensen vSp	here Web 🔃 Nutanix Web Console
VMware vCenter Server Appliar	nce
Login	
User name:	root
Password:	•••••
	Login
Copyright © 1998-2014 VI	Mware, Inc. All rights reserved. Powered by VMware Studio

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.

୍ଷ VIV	lware vCenter Se	rver Appliance						
vCenter Ser	ver Network Sy							
Summary	vCenter Server Setup							
Summary	Accept EULA	To configure this virtual appliance with a static IP address, you must first configure the						
vCenter	Customer experience improvement program	hostname. To do this, cancel this wizard, go to the network address settings. and enter the hostname. Once the hostname is configured, relaunch and complete this setup wizard.						
Server:	Configure Options	he hostname is already configured, or if you do not want to use a static IP address,						
Inventory Se	Database settings	select an option below.						
Database:	SSO settings							
SSO:	Active Directory settings	Configure with default settings						
Configure D	Time synchronization							
System	Review configuration		Download					
Time synchi	Configure	Upgrade from previous version						
Active Direc Configure T		Upload configuration file	Launch					
		Choose File No file chosen	Upload					
Services								
Log Browse		Cat sustan configuration						
ESXi Dump		Set custom contiguration						
k interest		Cancel < Prev Next >						
<b>vm</b> ware	; Cot	pyright © 1998-2014 VMware, Inc. All rights reserved. Powered						

Figure 19 Cancel Wizard

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

Lenter Server	Network	System	Update	Upgrade	Admin	Help   Loqout u
Status Ad	dress	Proxy				
twork Addres	s Settings.	Please res	tart the app	oliance after o	hanging th	e network configuration.
ameserver Source	F	rom DHCP				Actions
						Save Settings
ethu info						Cancel Changes
IPv4 Address Ty	)e	DHCP	•			
		Static				
IPv6 Address Typ	Je	None				

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.

Mware vCer	ter Server /	Applianc	e		
vCenter Server Network	system	Update	Upgrade	Admin	Help   Logout user root
Status Address	Proxy				
Network Address Setting	gs. Please rest	art the appl	liance after o	hanging th	ne network configuration.
Nameserver Source	From Configurati	ion			Actions
Hostname	vCenter-App.test.	com			Save Settings
IPv4 Default Gateway	10.50.181.1				Cancel Changes
IPv6 Default Gateway					
Preferred DNS Server	10.50.121.61				
Alternate DNS Server	10.50.121.11				
▼ eth0 info					
IPv4 Address Type	Static	•			
IPv4 Address	10.50.181.4	ļ	]		
Netmask	255.255.24	8.0	]		
IPv6 Address Type	Auto	¥			

- 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.

VMware vCenter Server Appliance							
vCenter Serv	er Network	System	Update	Upgrade	Admin	He	ip i <u>Loq</u> a
Status	Address	Ргоху					
Network St	atus						
Hostname:	vCenter-App.t	est.com					Actions
IPv4 Default Ga IPv6 Default Ga	ateway: 10.50.184.1 ateway:						Refresh
Preferred DNS	Server: 10.50.120.68						
Alternate DNS	Server: 10.50.120.12						
Interface Name	IPv4 Info	IPv6 Info			Managed by VAMI		
		Type:	Unassigned				
	Type: Static	Address: Drefix:					
eth0	Address: 10.50.184.4	n riella.			Yes		
	Neuriask, 200.200.240	Auto Addre	ss:				
		Auto Prenx					

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.

vCenter Server	Network	System	Update	Upgrade	)	Admin		Help   Logout user roc
Summary	Database	SSO	Time A	Authentication	Servi	ces	Storage	
ummary								
vCenter						Storag	ge Usage	
Server:	Stop	pped		S	tart	Syster	n:	38%
Inventory Service:	Stop	pped		S	tart	Databa	ase:	1%
Database:	not	configured				Logs:		1%
SSO:	not	configured				Cored	umps:	1%
Configure Databas	e   Configure S	SO				Utilitie	s	
System						Suppo	ort bundle	Download
Time synchronizati	on: Disa	abled				Confid	ouration file	Download
Active Directory:	Disa	abled				Potun	wizord	Launah
Configure Time	Configure Auther	ntication				Setup	wizaru	Launch
Services						Syspr	ep files	Upload
vSphere Web Clier	nt: Run	ning		S	top			
Log Browser:	Stop	pped		S	tart			
ESXi Dump Collect	tor: Run	ning		S	top			
Syslog Collector:	Run	ning		S	top			
vSphere Auto Depl	oy: Stop	pped		S	tart			
Configure Services								

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.

og <sup>Ø</sup> VN	lware vCenter Se	erver Applianc	е		
vCenter Ser	ver Network Sy				
Summary	Database SSO	Time Aut			
Summary					
vCenter				Storage Usage	
Server:	Stopped				
Inventory Se	ervice: Running				1%
Database:	vCenter Server Setup				%
	Customer experience improvement program	Database type:	embedde	ed 🔻	%
	Configure Options	Server:			
System	Database settings	Port:			Download
Time synchr	SSO settings	Instance name:			Download
	Active Directory settings	Login:			Jownioad
	Time synchronization	Password:			Launch
Comisso	Deview configuration				Upload
vSphere We	Review conliguration				
L og Browser	Configure				
ESXi Dump					
Syslog Colle					
vSphere Aut					
			C	Cancel < Prev	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 <u>administrator@vsphere.local</u> user and click **Next**.

oo <sup>o</sup> ∨N	lware vCenter Se	erver Appliance					
vCenter Ser	ver Network Sy						
Summary	Database SSO	Time Authenticatio					
Summary							
vCenter	Ctannad			Storage Usage			
	rvice: Running						
	vCenter Server Setun						
SSO:	Customer experience						
Configure D	improvement program	SSO deployment type:	embedde	d 🔻			
	Configure Options	Embedded SSO requires choosing	ng a passwo	rd for			
System	Database settings	the user administrator@vsphere.	local:	Download			
Time synchr	SSO settings	New administrator password:	•••••		Download		
Active Direc	Active Directory settings	Retype the new password:	•••••		Launch		
Configure Ti	Time synchronization	Account with right to register vCe	enter with the	SSO server	Lipload		
Services	Review configuration	Username:					
vSphere We	Configure	Password:			- 1		
Log Browser		l doonord.					
ESXi Dump		Account that will be assigned as	vCenter adn	ninistrator:			
Syslog Colle		Name:					
vSphere Aut			🗌 Is a gr	pup			
Configure S		Lookup service location:					
		URL:			]		
		Certificate status:					
		L	С	ancel < Prev	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.

og <sup>o</sup> ∨N		erver Appliance		
vCenter Ser	ver Network S			
Summary	vCenter Server Setup			
Summary	Accept EULA	Instance:		<b>^</b>
vCenter	improvement program	DB Reset:	no	A
Server:	Configure Options	SSO:		
Inventory Se	Database settings	Deployment type: Administrator account:	embedded	
Database:	SSO settings	Is a group:		
SSO:	Active Directory settings	Lookup service:		
Configure D	Time synchronization	Leelun eenies thumburint		
System	Review configuration	Lookup service thumbprint.		Download
Time synchr	Configure	Authentication:		Download
Active Direc		AD Enabled:	no	bownoau
Configure T		AD Domain: Time synchronization:		Launch
Somicos		Method:	none	Upload
vSphere We		NTP servers:		
Log Browse		Customer experience improvement	ent program:	
ESXi Dump		Enabled:	no	*
			Canaal	ray Start
				Stdit
M				Powered by VMware Studio
VIIIWare	,	ojngin o 1000 zerte vinitare, inc. A	ang de l'electre el	i onoice by vinitate ottatio

Figure 29 Complete Startup Wizard



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

∞o <sup>©</sup> VN			
vCenter Ser	rver Network Sy		
Summary	vCenter Server Setup		
Summary	Accept EULA		
vCenter	Customer experience improvement program		A
Server:	Configure Options		
Inventory Se	Database settings		
Database:	SSO settings		
SSO:	Active Directory settings	✓ Configuring time synchronization	
Configure D	Time synchronization	Configuring database	
System	Review configuration	✓ Starting vCenter Server	Download
Time synchr	Configure	Configuring customer experience improvement program	Download
Active Direc			Launch
Configure T			Upload
Services			
vSphere We			
Log Browse			
ESXI Dump			* .
		Cancel < Prev	Close
<b>vm</b> ware	5. Cot		Powered by VMware Studio

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**.

Del

New Cluster Wizard Cluster Features What features do you wa	nt to enable for this duster?
Cluster Features VMware EVC VM Swapfile Location Ready to Complete	Name         Test-Cluster         Cluster Features         Select the features you would like to use with this cluster.         Turn On vSphere HA         vSphere HA detects failures and provides rapid recovery for the virtual machines running within a cluster. Core functionality includes host and virtual machine monitoring to minimize downtime when heartbeats cannot be detected.         vSphere HA must be turned on to use Fault Tolerance.         Turn On vSphere DRS         vSphere DRS enables vCenter Server to manage hosts as an aggregate pool of resources. Cluster resources can be divided into smaller resource pools for users, groups, and virtual machines.         vSphere DRS also enables vCenter Server to manage the assignment of virtual machines to hosts automatically, suggesting placement when virtual machines are powered on, and migrating running virtual machines to balance load and enforce resource allocation policies.         vSphere DRS and VMware EVC should be enabled in the cluster in order to permit placing and migrating VMs with Fault Tolerance turned on, during load balancing.
Help	< Back Next > Cancel

Figure 33 New Cluster Wizard

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

🚱 New Cluster Wizard		×
VMware EVC Do you want to enable Enhanced	vMotion Compatibility for this duster?	
Cluster Features VMware EVC VM Swapfile Location Ready to Complete	Enhanced vMotion Compatibility (EVC) configures a cluster and its hosts to maximize vMotion compatibility. Once enabled, EVC will also ensure that only hosts that are compatible with those in the cluster may be added to the cluster.	
	Disable EVC     C Enable EVC for AMD Hosts     C Enable EVC for Intel® Hosts	
	VMware EVC Mode: Disabled	4
	Description	
<u> </u>	1	
Help	< Back Next > Cancel	

Figure 34 Enhanced vMotion

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

🛃 New Cluster Wizard		_ 🗆 ×
Virtual Machine Swapfile Location Which swapfile location policy sho	uld virtual machines use while in this cluster?	
Cluster Features VMware EVC VM Swapfile Location	Swapfile Policy for Virtual Machines	
leady to Complete	Store the swapfie in the datactore energified by the boot	
	If not possible, store the swapfile in the same directory as the virtual machine	
	A host specified datastore may degrade vMotion performance for the affected virtual machines	•
Help	< Back Next >	Cancel

Figure 35 Swapfile Policy

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

🛃 New Cluster Wizard			
Ready to Complete			
Review the selected options for this	cluster and click Finish.		
Cluster Features	The cluster will be created with the	following options:	
VMware EVC	Cluster Name:	Test-Cluster	
VM Swapfile Location			
Ready to complete	VMware EVC Mode:	Disabled	
	Virtual Machine Swapfile Location:	Same directory as the virtual machine	
<u> </u>			
Нер		< Back Finish	Cancel

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**.

	nventory 🕨 📳 Hosts and Clusters		Search Invento
<b>f</b> & & #			
Center-App	Test-Cluster		
Test-Cluster	Getting Started Summary Virtual Mac	hines Hosts Resource Allocation Perfo	ormance Tasks & Events Alarms Permissions Maps Profile Compliance
	What is a Cluster?		close tab 🗵
	what is a cluster?	🖁 Add Host Wizard	- 🗆
	A cluster is a group of nosts. W cluster, the host's resources be resources. The cluster manage within it.	Specify Connection Settings Type in the information used to connect	t to this host.
	Clusters enable the vSphere Hi	Connection Settings	Connection
	vopriere Distributed Resource	Host Summary Ready to Complete	Enter the name or IP address of the host to add to vCenter.
	Basic Tasks		Host: 10.50.182.13
	📑 Add a host		- Authorization
			Enter the administrative account information for the host. vSphere Client will use this information to connect to the host and establish a permanent account for its operations.
			Username: root
			Password:
		Help	< Back Next > Cancel



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

Add Host Wizard		×
Host Information Review the product information for the	e specified host.	
Connection Settings	You have chosen to add the following host to vCenter:	
Host Summary Assian License Lockdown Mode Ready to Complete	Name:       10.50.192.43         Vendor:       Dell Inc.         Model:       PowerEdge 2950         Version:       VMware ESXi 5.5.0 build-1230948         Virtual Machines:       Test VMware vCenter         Test VMware vCenter       VDGAHasWin7         VDGAHasWin7       VMware vCenter Server Appliance	F
Help	< Back Next > Cancel	

Figure 38 Host Summary

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

Assign License Assign an existing or a new	license key to this host.
Connection Settings Host Summary	Assign an existing license key to this host
Assign License Lockdown Mode Ready to Complete	Product Available  Evaluation Mode  (Not irrense Key)
	Assign a new license key to this host     Enter Key
	Product: VMware vSphere 5 Desktop Host Capacity: 300 VMs Available: 300 VMs Expires: Never Label:

Figure 39 License Key



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

Add Host Wizard Configure Lockdown Mode Specify whether lockdown mode is to	be enabled for this host.
Connection Settings Host Summary Assign License Lockdown Mode Ready to Complete	Lockdown Mode         When enabled, lockdown mode prevents remote users from logging directly into this host. The host will only be accessible through local console or an authorized centralized management application.         If you are unsure what to do, leave this box unchecked. You can configure lockdown mode later by navigating to the host's Configuration tab and editing its Security Profile.         Enable Lockdown Mode
Help	< Back Next > Cancel

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.

🛿 Add Host Wizard		
Ready to Complete Review the options you have selected a	and dick Finish to add the host.	
Connection Settings Host Summary Assign License Lockdown Mode Ready to Complete	Review this summary and dick Finish.         Host:       10.50.192.43         Version:       VMware ESXi 5.5.0 build-1230948         Networks:       VM Network         Datastores:       datastore1 (1) datastore2 (28)         Lockdown Mode:       Disabled	
Help	< Back Finish Cano	cel

Figure 41 Finish Add Host Wizard



## 3.3 Setting up vCenter Networking

 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.

Add Network Wizard	- Internet and the second s	
Connection Type Networking hardware G	an be partitioned to accommodate each service that requires connectivity.	
Connection Type Network Access Connection Settings Summary	Connection Types  Virtual Machine Add a labeled network to handle virtual machine network traffic.  VHkernel The VMkernel TCP/IP stack handles traffic for the following ESXi services: vSphere vMotion, ISCSI, NFS, and host management.	
Help	< Back Next > Cancel	

Figure 43 Select Virtual Machine Connection Type



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

🛃 Add Network Wizard				
Virtual Machines - Networ Virtual machines reach ne	<b>k Access</b> tworks through uplink adapters attached to vSpher	e standard switc	hes.	
Connection Type Network Access	Select which vSphere standard switch will handle t vSphere standard switch using the unclaimed net	the network traf work adapters lis	fic for this connection. You may also cre ted below.	eate a new
Connection Settings Summary	Create a vSphere standard switch Intel Corporation 82599 10 Gigabit D Image: Sphere standard switch Intel Corporation 82599 10 Gigabit D Image: Sphere standard switch Image: Sphere stan	Speed Jual Port Netw 10000 Full 10000 Full	Networks ork Connection ⊕- ⊕-	
Help			< Back Next >	Cancel

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.

Add Network Wizard				
Virtual Machines - Conne Use network labels to id	ection Settings lentify migration compatible connection	s common to two or more hosts.		
Connection Type Network Access Connection Settings Summary	Port Group Properties Network Label: VLAN ID (Optional):	VDI-VLAN	×	
	Preview: Virtual Machine Port Group VDI-VLAN VLAN ID: 112	Physical Adapters Physical Adapters Wrmnic1 Wrmnic0		
Help			< Back Next	> Cancel

Figure 45 Assign Network Label and VLAN ID



5. Click Finish to complete.

Add Network Wizard Ready to Complete Verify that all new and mo	dified vSphere standard switches are configured appropriately.
Connection Type Network Access Connection Settings Summary	Host networking will include the following new and modified standard switches: Preview:  VDL-VLAN VLAN ID: 112 Physical Adapters vmnic0
Help	<back cancel<="" finish="" th=""></back>

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.

🛃 Add Network Wizard				
Virtual Machines - Networ Virtual machines reach ne	rk Access etworks through uplink adapters attached to vSphe	ere standard swit	tches.	
Connection Type Network Access	Select which vSphere standard switch will handle vSphere standard switch using the unclaimed ne	e the network tra twork adapters l	affic for this connection. You may also o isted below.	reate a new
Connection Settings Summary	C Create a vSphere standard switch Intel Corporation I350 Gigabit Netw Image: Sphere standard switch Intel Corporation 82599 10 Gigabit Intel Corporation 82599 10 Gigabit Image: Sphere standard standard sphere Vistual Machine Port Group VM Network 2 Vistual Machine Port Group VVD VLAN VLAN ID: 112	Speed vork Connectic 1000 Full Down Speed Dual Port Nets 10000 Full 10000 Full	Networks n None Networks work Connection B- B- ic1 iic0	
Help	]		< Back Next >	Cancel

Figure 47 Create Second Port Group


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

🚱 Add Network Wizard				_ 🗆 ×
Virtual Machines - Conne Use network labels to id	ection Settings entify migration compatible connecti	ons common to two or more hosts.		
Connection Type Network Access Connection Settings Summary	Port Group Properties Network Label: VLAN ID (Optional): Preview: VM Network VLAN ID: 177 - Virtual Machine Port Group VD I-VLAN VLAN ID: 112	VM Network 177 Physical Adapters Wmic1 Wmic2 Second Second S	·	
Help	,		< Back Next >	Cancel

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**.

🛃 Add Network Wizard		_ 🗆 🗙
Connection Type Networking hardware can	be partitioned to accommodate each service that requires connectivity.	
Connection Type Network Access Connection Settings Summary	Connection Types  Virtual Machine  Add a labeled network to handle virtual machine network traffic.  Virtkernel  The Wikernel TCP/IP stack handles traffic for the following ESXI services: vSphere vMotion, ISCSI, NFS, and host management.	
Help	< Back Next >	Cancel

Figure 49 Create VMKernel



9. Select the existing vSwitch and click Next.

🚱 Add Network Wizard				
VMkernel - Network Acce The VMkernel reaches ne	<b>ss</b> tworks through uplink adapters attached to vSphe	re standard swi	itches.	
Connection Type Network Access Connection Settings Summary	Select which vSphere standard switch will hand vSphere standard switch using the unclaimed in Create a vSphere standard switch Intel Corporation I350 Gigabit Net Image: Standard Switch Image: Standard Switch Intel Corporation 82599 10 Gigabit Image: Switch Intel Corporation 82599 10 Gigabit Image: Switch Intel Corporation 82599 10 Gigabit Image: Switch Image: Switch	e the network tr twork adapters Speed vork Connecti 1000 Full Down Speed Dual Port Net 10000 Full 10000 Full 10000 Full	affic for this connection. You may also create a nellisted below. Networks None Networks twork Connection  tters nic1 nic0	ew
Нер	- Virtual Machine Port Group VM Network	-	< Back Next > 0	Cancel

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.

🛃 Add Network Wizard			
VMkernel - Connection S Use network labels to id	Settings dentify VMkernel connections while ma	anaging your hosts and datacenters.	
Connection Type Network Access Connection Settings IP Settings Summary	Port Group Properties Network Label: VLAN ID (Optional): Network Type:	VMotion 10 VUse this port group for vMotion Use this port group for Fault Tolerance logging Use this port group for management traffic	
	VMkernel Port VMotion VLAN ID: 10 -Virtual Machine Port Group VDI-VLAN VLAN ID: 112 -Virtual Machine Port Group -VM Network VLAN ID: 177	Physical Adapters	
Help		< Back Next >	Cancel

**Dél** 

Figure 51 Assign port name for vMotion

11. Assign an IP address and click Next.

🛃 Add Network Wizard		_ 🗆 ×
VMkernel - IP Connection S Specify VMkernel IP setting	Settings gs	
Connection Type Network Access Connection Settings IP Settings Summary	Obtain IP settings automatically     Obtain IP settings automatically     IP Address:     IP Address:     Vikernel Default Gateway:     Edit  Preview:	
	VMMetion     Image: Vision respiration       Virtual Machine Port Group     Virtual Machine Port Group       VLAN ID: 112     Virtual Machine Port Group       VM Network     Image: Virtual Machine Port Group	T
Help	< Back Next > Car	icel

Figure 52 Assign IP Address

12. Click Finish to complete.

Add Network Wizard Ready to Complete Verify that all new and	_ □ ×
Connection Type Network Access Connection Settings Summary	Host networking will include the following new and modified standard switches: Preview:  Witkernel Port VMMotion  10.50.123.232 Virtual Machine Port Group VLAN ID: 112 VLAN ID: 112 VITual Machine Port Group VM Network VLAN ID: 177
Help	< Back Finish Cancel

Dél

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**.

🛃 Add Network Wizard			
VMkernel - Connection Use network labels to i	Settings dentify VMkernel connections while mar	naging your hosts and datacenters.	
Connection Type Network Access Connection Settings IP Settings Summary	Port Group Properties Network Label: VLAN ID (Optional):	Management Network 177 Use this port group for vMotion Use this port group for Fault Tolerance logging Use this port group for management traffic	
	Network Type:	IP and IPv6	
	Vikemel Port Vikemel Port VLAN ID: 177 VILAN ID: 177 VILAN ID: 177 VILAN ID: 112 VILAN ID: 112 VILAN ID: 112 VILAN ID: 117 VIKemel Port VIKemel Port		×
Help		< Back Next >	Cancel

Figure 54 VMkernel Connection Settings



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

🛃 Add Network Wizard		_ 🗆 🗙
VMkernel - IP Connection	Settings	
Specify VMkernel IP settir	ngs	
Connection Type Network Access Connection Settings	C Obtain IP settings automatically C Use the following IP settings:	
IP Settings	IP Address:	
Summary	Subnet Mask: 285 . 285 . 285 . 0	
	VMkernel Default Gateway: Edit	
	Devidence	
	-VAlkamal Part	
	Management Network	
	16.59.123.12   VLAN ID: 177	
	Virtual Machine Port Group	
	VDI-VLAN 💆 🔶	
	VLAN ID: 112	
	Virtual Machine Port Group	
	VLAN ID: 177	
	- Wikemel Port	
	VMotion 👳 🔶	
	vmk2:10.10.10.43   VLAN ID:10	
	VMkernel Port	-
		1
нер	< Back Next > C	ancei

Figure 55 VMkernel IP Settings

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

Add Network Wizard VMkernel - IPv6 Connec Specify VMkernel IPv6	<b>:tion Settings</b> settings	_ 🗆 X
Connection Type Network Access Connection Settings IP Settings IPv6 Settings Summary	Use the following IPv6 settings: Obtain IPv6 address automatically through DHCP Obtain IPv6 address automatically through Router Advertisement Static IPv6 addresses:	
	IPv6 Address Subnet Prefix Length Add, Edit, Remove UMkernel Default Gateway: Edit,	
	Preview: Wikemal Port Management Networks Virtual Machine Port Group VDI-VLAN VLAN ID: 112	•
Help	< Back Next >	Cancel

Figure 56 Automatically Obtain IPv6 Address

17. Click Finish to complete.

🛃 Add Network Wizard		
Ready to Complete Verify that all new and mo	dified vSphere standard switches are configured appropriately.	
Connection Type Network Access Connection Settings Summary	Host networking will include the following new and modified standard switches: Preview:          Virtual Machine Port Group       Physical Adapters         VDI-VLAN       Image: Comparison of the standard switches:         VLAN ID: 112       Image: Comparison of the standard switches:         VMLAN ID: 112       Image: Comparison of the standard switches:         VMLAN ID: 112       Image: Comparison of the standard switches:         VMLAN ID: 117       Image: Comparison of the standard switches:         VMMemel Port       Imag	
Help	< Back Finish 0	Cancel

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.



Add Network Wizard	
Connection Type	an be partitioned to accommodate each service that requires connectivity.
nethoning hardware (	
Connection Type Network Access Connection Settings Summary	Connection Types Virtual Machine Add a labeled network to handle virtual machine network traffic. Vikernel The VMkernel TCP/IP stack handles traffic for the following ESXI services: vSphere vMotion, ISCSI, NFS, and host management.
Help	< Back Next > Cancel

Figure 58 Create Second Switch

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

letwork Access	Select which vSphere standard switch will handle vSphere standard switch using the unclaimed ne	e the network tr twork adapters	affic for this connection. You may also creat listed below.	e a new
Connection Settings Summary	• Create a vSphere standard switch	Speed	Networks	
,	Intel Corporation 1350 Gigabit Net	vork Connecti	ion	
	Vmnic2	1000 Full	10.50.177.51-10.50.177.51	
	Vmnic3	Down	None	
	O Use vSwitch0	Speed	Networks	
	Intel Corporation 82599 10 Gigabit	Dual Port Net	work Connection	
	vmnic1	10000 Full	10.50.120.1-10.50.127.254	
	vmnic0	10000 Full	+-10.50.120.1-10.50.127.254	
	Preview:			
	-Virtual Machine Port Group VM Network 2	Physical Adapters - No adapters		

Figure 59 Create vSphere Standard Switch

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

🛃 Add Network Wizard	
Virtual Machines - Connect Use network labels to iden	tion Settings tify migration compatible connections common to two or more hosts.
Connection Type Network Access Connection Settings Summary	Port Group Properties         Network Label:       svm-iscsi-gp         VLAN ID (Optional):       None (0)         Preview:
Help	< Back Next > Cancel

Figure 60 Assign Network Label

#### 21. Click Finish to complete.

Add Network Wizard	
Ready to Complete	
verity that all new a	nd modified vsphere standard switches are configured appropriately.
Connection Type	Host networking will include the following new and modified standard switches:
Network Access	Preview:
Summary	-Virtual Machine Port Group Physical Adapters
-	svm-iscsi-gp
1	
Help	< Back Finish Cancel

Figure 61 Completed Adding Switches



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

🛃 Add Network Wizard		_ 🗆 🗙
Connection Type Networking hardware can	be partitioned to accommodate each service that requires connectivity.	
Connection Type Network Access Connection Settings Summary	Connection Types  Virtual Machine  Add a labeled network to handle virtual machine network traffic.  VMkernel  The VMkernel TCP/IP stack handles traffic for the following ESXi services: vSphere vMotion, iSCSI, NFS, and host management.	
Help	< Bad: Next >	Cancel

Figure 62 Adding VMKernel Connection

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

Add Network Wizard				_ 0
VMkernel - Network A	ccess			
The VMkernel reache	es networks through uplink adapters attached	to vSphere standard swi	tches.	
Connection Type	Select which vSphere standard switch v	vill handle the network tr	affic for this connection. You may also creat	te a new
Connection Settings	Vsphere standard switch using the und	aimed network adapters	listed below.	
Summary	O Use vSwitch0	Speed	Networks	-
	Intel Corporation 82599 10	Gigabit Dual Port Net	work Connection	
	Vmnic1	10000 Full	10.50.126.1-10.50.126.63	
	Vmnic0	10000 Full	10.50.126.1-10.50.126.43	
	Use vSwitchNutanix	Speed	Networks	
		opeca		
	Proviouu			
	Preview:			
	VMkernel Port	- Physical Adapters		
	VMikernel	No adapters		
	Virtual Machine Port Group			
	svm-iscsi-pg	2.		
Help			< Back Next >	Cancel

Figure 63 Use Newly Created Switch



24. Assign a network label and click Next.

🚱 Add Network Wizard		
VMkernel - Connection Se Use network labels to ide	ttings ntify VMkernel connections while n	nanaging your hosts and datacenters.
Connection Type Network Access Connection Settings IP Settings Summary	Port Group Properties Network Label: VLAN ID (Optional): Network Type: Preview: VM-ISCSI-PG -Virtual Machine Port Group svm-Iscsi-pg	VM-ISCSI.PG         None (0)         Use this port group for VMotion         Use this port group for Fault Tolerance logging         Use this port group for management traffic         IP (Default)         Physical Adapters         No adapters         Image: Comparison of the second secon
Help		< Back Next > Cancel

Figure 64 Assign Network Label

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

Add Network Wizard				
VMkernel - IP Connectio	n Settings			
Specity VMKernel IP se	ungs			
Connection Type	Obtain IP settings automatically			
Connection Settings	└ Use the following IP settings: ───			
IP Settings	IP Address:	10 , 90 , 123 , 123		
Summary	Subnet Mask:	1000 1000 1000 (B		
	Vital and Default Catavasu	200 1 200 1 200 1 44		
	Wikemer Default Gateway:	10 . 10 . 177 . 1	Edit	
	Preview:			
	-VMkernel Port	- Physical Adapters		
	VMkernel 👳 🔶	<ul> <li>No adapters</li> </ul>		
	10.50.123.123			
	Virtual Machine Port Group			
	svin-iscsipg			
	<u> </u>			
Help		< Back	Next >	Cancel

Figure 65 Assign IP Connection Settings



26. Click Finish to complete.

🛃 Add Network Wizard		. 🗆 🗙
Ready to Complete Verify that all new and m	odified vSphere standard switches are configured appropriately.	
Connection Type Network Access € Connection Settings Summary	Host networking will include the following new and modified standard switches: Preview:  VMkernel Port VMkernel VMkernel VMkernel Svm-iscsi-pg	
Help	< Back Finish Can	cel

Figure 66 Completed Network Configuration

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

Stan	dard Switch: vSwitch0	Remove Properties
	Virtual Machine Port Group	Physical Adapters
Ρ	VDI-VLAN	💁 🔶 🐨 vmnic1 10000 Full 🖓
+	39 virtual machine(s)   VLAN ID: 112	Le 🔛 vmnic0 10000 Full 🖓
_	Virtual Machine Port Group	
Ρ	VM Network	<u>-</u> +
+	5 virtual machine(s)   VLAN ID: 177	
_	- VMkernel Port	
P	VMotion	<u>-</u> +1
	vmk2 : VLAN ID: 10	
_	VMkernel Port	
P	Management Network	<u>-</u> +1
	vmk0 :   VLAN ID: 177	
	fe80::e :3598	
stan	dard Switch: vSwitchNutanix	Remove Properties
_	Virtual Machine Port Group	Physical Adapters
μ	svm-iscsi-pg	<ul> <li>No adapters</li> </ul>
+	1 virtual machine(s)	
_	VMkernel Port	
μ	vmk-svm-iscsi-pg	
	vmk1:	

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.



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.

Server Configuration	1				
Specify the service accounts	s and collation configuration.				
Setup Support Rules	Service Accounts Collation				
Setup Role					
Feature Selection	Microsoft recommends that you us	e a separate account for each SQL Server servic	e.		
Installation Rules	Service	Account Name	Password	Startup Type	e
Instance Configuration	SQL Server Agent	NT Service\SQLSERVERAGENT		Manual	~
Disk Space Requirements	SQL Server Database Engine	NT Service\SQLSERVERAGENT		Automatic	$\overline{}$
Server Configuration	SQL Server Browser	< <browse>&gt;</browse>		Disabled	~
Database Engine Configuration					

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**.

Database Engine Config	guration	
Specify Database Engine authen	tication security mode, administra	ators and data directories.
Setup Support Rules	Server Configuration Data Dir	rectories FILESTREAM
Setup Role		
Feature Selection	Data root directory:	C:\Program Files\Microsoft SQL Server\
Installation Rules	System database directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data
Instance Configuration	User database directory:	D:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQLData
Disk Space Requirements	oser ababase arrectory.	
Server Configuration	User database log directory:	E:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data
Database Engine Configuration	Temp DB directory:	F:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data
Error Reporting		
Installation Configuration Rules	Temp DB log directory:	G:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data
Ready to Install	Backup directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Backup
Installation Progress		

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**.

## Installing VMware View Connection Server

5

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.



# 1. Double-click **VMware-viewconnectionserver-x86\_64-6.0.0-xxxxxx.exe** to start the installer. The installation wizard is displayed.

Name *	Date modified	Туре	Size	
🐝 VMware-Horizon-View-Client-x86_64-3.0.0-1781356	19/06/2014 16:45	Application	40,167 KB	
🚯 VMware-Horizon-View-Client-x86-3.0.0-1781356	19/06/2014 14:16	Application	36,908 KB	
🐻 VMware-viewagent-direct-connection-6.0.0-1782638	19/06/2014 14:15	Application	12,625 KB	
🚯 VMware-viewagent-direct-connection-x86_64-6.0.0-1782638 (1)	19/06/2014 14:15	Application	14,590 KB	
🐻 VMware-viewagent-x86_64-6.0.0-1782785	19/06/2014 14:21	Application	132,755 KB	
🚯 VMware-viewcomposer-6.0.0-1781257	19/06/2014 14:15	Application	30,472 KB	
🚯 VMware-viewconnectionserver-x86_64-6.0.0-1782638	19/06/2014 14:21	Application	159,964 KB	

Figure 70 VMware Horizon View Connection Server Installer

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

📸 YMware Horizon View Conn	ection Server	x
	Welcome to the Installation Wizard for VMware Horizon View Connection Server	
	The installation wizard will install VMware Horizon View Connection Server on your computer. To continue, click Next.	
VMware Horizon™ View Connection Server	Copyright (c) 1998-2014 VMware, Inc. All rights reserved. This product is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at http://www.vmware.com/go/patents.	5
Product version: 6.0.0-1782638 :	x64 < <u>B</u> ack <u>Next</u> > Cancel	

Figure 71 VMware Horizon View Connection Server Welcome Page



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

VMware Horizon View Connection Server	×
License Agreement Please read the following license agreement carefully.	6
VMWARE, INC. BETA LICENSE AGREEMENT	
Note: BY CLICKING "I AGREE," ACCESSING, DOWNLOADING, INSTALLING, UPLOADING, COPYING OR USING THE BETA SOFTWARE, YOU CONCLUDE AND AGREE TO THIS BETA LICENSE AGREEMENT ("AGREEMENT") IN A LEGALLY BINDING MANNER WITH VMWARE, INC., 3401 HILLVIEW AVENUE, PALO ALTO, CA 94304, USA ("VMware"). IF YOU HAVE SPECIFIED IN CONNECTION WITH THE REGISTRATION PROCESS FOR THIS SOFTWARE BETA TEST PROGRAM THAT YOU ARE ACTING ON BEHALF OF A COMPANY OR OTHER ORGANIZATION, YOU REPRESENT THAT YOU ARE AUTHORIZED	T
$\odot$ I accept the terms in the license agreement $\bigcirc$ I do not accept the terms in the license agreement	
< Back Next > Cancel	

D¢LI

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**.

🙀 YMware	Horizon View Connection Server	×
Destinati Click Ne:	i <b>on Folder</b> xt to install to this folder, or click Change to install to a different folder.	B
	Install VMware Horizon View Connection Server to: C:\Program Files\VMware\VMware View\Server\	Change
	< Back Next >	Cancel

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.

🚏 VMware Horizon View Connection Server	×
Installation Options Select the type of View Connection Server instance you want to install.	<b>P</b>
Select the type of View Connection Server instance you want to install.	
View Security Server  Perform a standard full install. This is used to install a standalone instance of View Connection Server or the first instance of a group of cervers	
Connection berver of the first instance of a group of servers.	
< Back Next > Ca	ncel

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**.

🙀 ¥Mware Horizon ¥iew Connection S	erver	×
Data Recovery Enter data recovery password details.		₽
This password protects data backups of ye require entry of this password.	our View Connection Server. Recovering a ba	ackup will
Enter data recovery password:	•••••	_
Re-enter password:	••••••	
Enter password reminder (optional):	My Password Hint	
	< Back Next >	Lancel

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**.

🙀 VMware Horizon View Connection Server	×
Firewall Configuration Automatically configure the Windows Firewall to allow incoming TCP protocol connections.	₽Ъ
In order for View Connection Server to operate on a network, specific incoming TCP por 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), 4100 (JMSIR), 4172 (PCoIP), 8472 (Inter-pod API), and 8443 (HTML Access). UDP packets of port 4172 (PCoIP) are allowed through as well.	orts or on
Configure Windows Firewall automatically	
Do not configure Windows Firewall	
< <u>B</u> ack <u>N</u> ext > Can	icel

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**.

×				
Ò				
nd				
r.				
(demains and users and idemains and area as a 1000 format)				

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.

🙀 VMware Horizon View Connection Server		×
User Experience Improvement Program Basic Customer Demographics	_	<b>P</b>
VMware is constantly trying to improve the user experience help us in this effort by agreeing to send product usage sta completely anonymous, and is restricted to product usage i about it visit the VMware user experience improvement we button.	e of our products. You can atistics. This data is metrics. For more details b page by clicking the ''	
Participate anonymously in the user experience improvement	ovement program	
Select your organization industry type:		•
Select location of your organization's headquarter:		•
Select approximate number of employees:		•
< Back	Next > Can	ncel

Figure 78 Participating in User Experience Improvement Programs



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

🐺 VMware Horizon View Connection Server	×
<b>Ready to Install the Program</b> The wizard is ready to begin installation.	R
VMware Horizon View Connection Server will be installed in: C:\Program Files\VMware\VMware View\Server\	
Click Install to begin the installation or Cancel to exit the wizard.	
< Back Install	Cancel

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



<b>vm</b> ware <sup>.</sup>		
	VMware Horizon™	
User name: Password: Domain:	OSPREY ▼ Remember user name	

Dél

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

Figure 81 Horizon View Webpage Login

#### 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.



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



6

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

🙀 YMware Horizon View Composer			×
License Agreement	nent carefully.		<b>P</b>
VMV BETA LICE	VARE, INC. NSE AGREE	MENT	
Note: BY CLICKING "I AGREE," ACCH UPLOADING, COPYING OR USING TI AND AGREE TO THIS BETA LICENS LEGALLY BINDING MANNER WITH PALO ALTO, CA 94304, USA ("VMwa CONNECTION WITH THE REGISTRA BETA TEST PROGRAM THAT YOU A OR OTHER ORGANIZATION, YOU R	ESSING, DOWN HE BETA SOFT E AGREEMENT VMWARE, INC are"). IF YOU HA TION PROCESS ARE ACTING O EPRESENT THA	LOADING, INSTA WARE, YOU CON ("AGREEMENT") 3401 HILLVIEW AVE SPECIFIED IN 5 FOR THIS SOFT N BEHALF OF A ( AT YOU ARE AUT	ALLING, ICLUDE IN A AVENUE, WARE COMPANY THORIZED
$\odot$ I accept the terms in the license agreem	nent		
$\bigcirc$ I do not accept the terms in the license	agreement		
InstallShield			
	< Back	Next >	Cancel

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**.

🙀 ¥Mware	Horizon ¥iew Composer			×
<b>Destinati</b> Click Nex	<b>on Folder</b> kt to install to this folder, or clic	k Change to install	to a different folder	6
	Install VMware Horizon View ( C:\Program Files (x86)\VMwa	Composer to: re\VMware View Co	mposer\	Change
InstallShield -		< Back	Next >	Cancel

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**.

👹 ¥Mware Horizon ¥iew Composer				×
Database Information				
Enter additional database configuration	n information.			
Enter the Data Source Name (DSN) for up the DSN click the ODBC Setup buttor	the VMware Horizo 1.	on View	) Composer da	atabase. To set
			ODBC D	SN Setup
Enter the username that you entered in	n the ODBC Data S	5ource	Administrator	
Enter the password for this database o	onnection.			
InstallShield				
	< Back		Next >	Cancel

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.

👘 VMware Horizo	on View Composer 🛛 🔀
YMware Horizo Enter the conn	ection information for the VMware Horizon View Composer.
Specify the web <u>S</u> OAP Port:	access port and security settings for VMware Horizon View Composer.
SSL Certificate:	<ul> <li>Create default SSL certificate</li> <li>Use an existing SSL certificate</li> </ul>
InstallShield ———	< Back Next > Cancel

Figure 86 SOAP Port Settings



#### 6. Click Install.

7. After the installation is completed, click **Finish**.

圆	VMware Horizon View Composer
	Installer Completed The installer has successfully installed VMware Horizon View Composer. Click Finish to exit the wizard.
vmware Horizon™ View Composer ⊡Pc⊛II™	

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.





## Configuring a VMware View Connection Server

7

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**.

VMware Horizon View A	Administrator			About	Help   Log	out (administrator)
Updated 15/08/2014 10:48 🟾 🥭	Dashboard					
Sessions 0 Problem vCenter VMs 0 Problem RDS Hosts 0					Updated 15/08/:	2014 10:48:18 🟾 🍣
Events 🔶 0 🛕 0	System Health			Machine Status		
System Health 💼 🔲 💌 💿 24 1 1 0	<ul> <li>View components</li> <li>Connection Servers</li> </ul>		*	vCenter VMs	RDS Hosts Ot	hers
Inventory	Event database			▶ 🚞 Preparing		0
	▶ ■ View Composer Serve	ers		▶ 🗀 Problem Machines	5	0
Stanpoard Catalog ■ Catalog	▼ vSphere components ▶ ■ Datastores		:	▶ 🗀 Prepared for use		0
Desktop Pools	<ul> <li>ESX hosts</li> <li>Center Servers</li> </ul>					
P ThinApps	▼ Other components		-			
Farms	Datastores					
🚰 Machines					<u> </u>	= Low on free space
Monitoring	Datastore	vCenter Server		Path	Capacity (GB)	Free Space (GB)
▶ Policies	R720-IXT-DT-05-LOCAL	fc-vc.osprey.com	/FluidCache	R720-IXT-DT-05-LOCA	1,088	862
► View Configuration	IXT-FC-08-LOCAL	fc-vc.osprey.com	/FluidCache	/IXT-FC-08-LOCAL	928	926
	IXT-FC-07-LOCAL	fc-vc.osprey.com	/FluidCache	/IXT-FC-07-LOCAL	928	926
Jone				🔨 Local intranet   Protec	ted Mode: Off	🖓 🔹 🔍 75% 🔹

Figure 88 VMware View Connection Server Configuration

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

VMware Horizon View A	Administrator
Updated 11/12/2014 9:54 AM 😂	Servers
Sessions 1 Problem vCenter VMs 0	vCenter Servers Security Servers Connection Servers
Problem RDS Hosts 11 Events $0$ $\Lambda$ 0	Add Edit Remove Disable Provisioning Enable Provisioning
System Health 📕 📕 🗐 13 2 0 0	vCenter Server
Inventory	2 🕼 10.50.177.52(OSPREY\administrator)
🖓 Dashboard	
⇔ Users and Groups ► Catalog	
▼ Resources	
🙀 Farms 🔂 Machines	
Persistent Disks	
► Policies	
▼ View Configuration Servers	
Product Licensing and Usage	
Registered Machines	
Administrators ThinApp Configuration	
Event Configuration	

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**.

d vCenter Server	vCenter Server Information	
°C Information	vCenter Server Settings	vCenter Server Settings
View Composer Storage Ready to Complete	Server address:	Before you add vCenter Server to View, install a valid SSL certificate
	User name:	signed by a trusted CA. In a test environment, you can use the
	Password:	installed with vCenter Server, but
	Description:	you must accept the certificate thumbprint.
	Port: 443	Provide the vCenter Server FQDN or IP address, user name, and password.
	Advanced Settings	Concurrent Operations Limits
	Specify the concurrent operation limits.	Max concurrent vCenter provisioning operations: the maximum number of
	Max concurrent vCenter 20 20	concurrent VM cloning and deletion operations on this vCenter server
	Max concurrent power 50	(full clones).
	Max concurrent View Composer maintenance 12 operations:	the maximum number of concurrent VM power-on, power-off, reset, and configuration operations (full clones
	Max concurrent View Composer provisioning operations:	Max concurrent View Composer maintenance operations: the maximum number of concurrent View

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).

Add vCenter Server		
Add vCenter Server	View Composer	<b>_</b>
VC Information	View Composer Settings	View Composer Settings
View Composer Domains Storage Ready to Complete	<ul> <li>Do not use View Composer</li> <li>View Composer co-installed with vCenter Server</li> <li>Choose this if View Composer is installed on the same server as vCenter</li> <li>Port: 19443</li> <li>Standalone View Composer Server</li> <li>Choose this if View Composer is installed on a separate server from vCenter</li> <li>Server address:</li> <li>User name:</li> <li>Password:</li> <li>Port: 18443</li> </ul>	View Composer can be installed on the vCenter Server host or a standalone host. Before you add View Composer to View, install a valid SSL certificate signed by a trusted CA. In a test environment, you can use the default, self-signed certificate that is installed with View Composer, but you must accept the certificate thumbprint.
		< Back Next > Cancel

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.
| dd vCenter Server  | View Composer Doma   | ins                   |                                       |   |
|--|----------------------|-----------------------|---------------------------------------|---|
| VC Information   | View Composer Dom    | ains                  |                                       | View Composer Domains   |
| View Composer<br>View Composer Domains<br>Storage<br>Ready to Complete | Add Edit             | Remove                |                                       | View Composer adds computer<br>accounts for linked-clone  |
|  | Domain<br>OSPREY.COM | User<br>Administrator | Desktop Pool                          | configured here. The View<br>Composer user accounts for the<br>domains must have Create<br>Computer Objects, Delete |
|  | Add Domain           |                       |                                       | Computer Objects, and Write A<br>Properties permissions in the<br>domains.  |
|  | Full domain r        | name:                 | · · · · · · · · · · · · · · · · · · · | desktop pool, you select a<br>domain from this list to store the<br>computer accounts.                              |
|  | Password:            |                       |                                       |   |
|  |                      |                       | OK Cancel                             |   |
|  |                      |                       |                                       |   |
|  |                      |                       |                                       |   |

Figure 92 View Composer Domains

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

Add vCenter Server			
Add vCenter Server	Storage		
VC Information	Storage Settings		Storage Settings
View Composer View Composer Domains Storage	A View Storage Accelerator is unavai required	lable because vSphere 5.0 or higher is	ESXi hosts can be configured to cache virtual machine disk data, which improves performance
Ready to Complete	Reclaim VM disk space		during I/O storms such as when many machines power on and run
	Enable View Storage Accelerator		anti-virus scans at once. Hosts
	Default host cache size: 1024	MB	cache instead of reading the OS
	Cache must be between 100 MB an	d 2048 MB	from disk.
	Hosts		<ul> <li>By reducing IOPS during boot storms, View Storage Accelerator lowers the demand on the</li> <li>storage array and uses less</li> </ul>
	Edit cache size		storage I/O bandwidth.
	Host	Cacho Sizo	Disk Space Reclamation
	Hose	Cattle Size	With vSphere 5.x, virtual machines can be configured to
			use a space efficient disk format
			unused disk space (such as
			deleted files). This option reclaims
			machine. The operation is
			initiated when an estimate of
			specified threshold.
			< Back Next > Cancel

Figure 93 Storage Options

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

dd vCenter Server	Storage		
VC Information	Storage Settings		Storage Settings
View Composer View Composer Domains Storage	View Storage Accelerator is unavaila	able because vSphere 5.0 or higher	is ESXi hosts can be configured to cache virtual machine disk data, which improves performance
Ready to Complete	Reclaim VM disk space		during I/O storms such as when many machines power on and run
	Enable View Storage Accelerator		anti-virus scans at once. Hosts
	Default host cache size: 1024	MB	cache instead of reading the OS
	Cache must be between 100 MB and	2048 MB	from disk.
	Hosts Show all hosts		By reducing IOPS during boot storms, View Storage Accelerator lowers the demand on the storage array and uses less
	Edit cache size		storage I/O bandwidth.
	Host	Cache Size	With vSphere 5.x, virtual machines can be configured to use a space efficient disk format that supports reclamation of unused disk space (such as deleted files). This option reclaims unused disk space on each virtual machine. The operation is initiated when an estimate of used disk space exceeds the specified threshold.

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.

VMware Horizon View A	administrator			
Updated 15/08/2014 10:48 🛛 🥹	Licensing and Usage			
Sessions 0				_
Problem vCenter VMs 0	Licensing			
Problem RDS Hosts 0 Events $ ilde{} 0 \land 0$ System Health 📕 🔲 💽	Edit License			
24 1 1 0	License expiration:	Saturday, 1 August 2015 00:00:00	BST	
T	Desktop license:	Enabled		
Inventory	Application Remoting licenses	Epobled		
🚱 Dashboard	Application Remoting license.	Enableu		
👸 Users and Groups	View Composer license:	Enabled		
▼ Catalog	Usage Model:	Concurrent User		
Desktop Pools				
Application Pools				
ThinApps	Usage			
▼ Resources	Reset Highest			2
Machines				·
Persistent Disks	Session Mode	Current	Highest	
▶ Monitoring	Total Remote	0	464	
▶ Policies	Active - full virtual machines	0	0	
▼ View Configuration	Active - linked clone	0	464	
Servers	Active - other machine sources	0	0	
Product Licensing and Usage	Active - applications	0	0	

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.

VMware Horizon View A	dministrator
Updated 15/08/2014 10:48 Sessions 0 Problem vCenter VMs 0 Problem RDS Hosts 0 Events 0 4 0 System Health 1 1 0	Event Configuration  Event Database Edit No database has been defined, events will not be recorded. Click 'Edit' to specify a database server.
24 1 1 0	Event Settings
Inventory	Event settings cannot be configured until a database server has been specified.
<ul> <li>☆ Dashboard</li> <li>☆ Users and Groups</li> <li>▼ Catalog</li> <li>☑ Desktop Pools</li> <li>☑ Application Pools</li> </ul>	



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.

Edit Event Database	
Database server:	FC-SQL
Database type:	Microsoft SQL Server 🛛 🔻
Port:	1433
Database name:	viewevents
User name:	sa
Password:	****
Confirm password:	****
Table prefix:	
	OK Cancel

Figure 98 Configuring Event Database



# 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.

	Setting	JS
	Type a password for th	e built-in administrator account that you can use to sign in to this computer.
	User name	Administrator
	Password	
	Reenter password	
Ċ		Finish

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**.

Server M	anager • Dashboard • 🕲 I	Manage	Tools View Help	
Dashboard	WELCOME TO SERVER MANAGER			<
<ul> <li>■ Local Server</li> <li>■ All Servers</li> <li>■ File and Storage Services </li> </ul>	QUICK START			
	WHAT'S NEW     3     Add other servers to manage       4     Create a server group			=
	LEARN MORE		Hide	
	ROLES AND SERVER GROUPS Roles: 1   Server groups: 1   Servers total: 1			
	File and Storage 1 Services 1			
	Manageability     Manageability     Event			
	Performance 3 Services			
	BPA results Performance			
	BPA results			
	9/15/2014 5/22 AM		5.22 AM	~
			▲ 10 132 AM 8/15/2014	

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**.

<b>b</b>	Add Roles and Features Wizard	_ <b>_</b> ×	5)
Select deployme	nt scenario standa	DESTINATION SERVER	
Before You Begin Installation Type	programs, and session-based desktops.	sktops, kemoteApp	
Deployment Type Deployment Scenario	Virtual machine-based desktop deployment Virtual machine-based desktop deployment allows users to connect to virtual de that include published RemoteApp programs and virtual desktops.	esktop collections	
RD Connection Broker	<ul> <li>Session-based desktop deployment</li> <li>Session-based desktop deployment allows users to connect to session collection</li> </ul>	ns that include	
RD Session Host	published RemoteApp programs and session-based desktops.		
Completion			
	< Previous Next > Depl	oy Cancel	I

Figure 104 Session-Based Desktop Deployment



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



Figure 105 Review Role Services



7. Click Next.

	Add Roles and Features Wizard	. <mark>0</mark> ×
Specify RD Con	ection Broker server DESTINAT Standard deploym	ION SERVER ent selected
Before You Begin Installation Type Deployment Type Deployment Scenario	Select the servers from the server pool on which to install the RD Connection Broker role server Pool Server Pool Computer	vice.
Role Services RD Connection Broker RD Web Access RD Session Host Confirmation Completion	Filter: <ul> <li>Name</li> <li>IP Address</li> <li>Operating</li> <li>FC-RDSH.OSPREY.COM</li> <li>10.50.176.28</li> <li> </li></ul> <ul> <li>OSPREY.COM (1)</li> </ul> <ul> <li>FC-RDSH</li> </ul> <ul> <li>FC-RDSH</li> </ul> <ul> <li>IP Address</li> <li>Operating</li> </ul> <ul> <li>FC-RDSH</li> </ul> <ul> <li>IP Address</li> <li>Operating</li> </ul> <ul> <li>IP Address</li> <li>Operating</li> </ul> <ul> <li>IP Address</li> <li>Operating</li> </ul>	
	<	Cancel

Figure 106 RD Connection Server



 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.

<b>a</b>	Add Roles and Features Wizard	
Specify RD Web A Before You Begin Installation Type Deployment Type Deployment Scenario Role Services RD Connection Broker RD Web Access RD Session Host	Add Roles and Features Wizard ACCESS SETVET Select a server from the server pool on which to install 1 Install the RD Web Access role service on the RD Co Server Pool Filter: Name IP Address Operat FC-RDSH.OSPREY.COM 10.50.176.28	DESTINATION SERVER Standard deployment selected the RD Web Access role service. connection Broker server Selected Computer • OSPREY.COM (1) FC-RDSH
Confirmation Completion	FC-RDSH.OSPREY.COM     10.50.176.28       <     III       1 Computer(s) found	I Computer(s) selected  Next > Deploy Cancel

Figure 107 RD Web Access Server



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

<b>A</b>	Add Roles and Features Wizard
Specify RD Sess	ion Host servers Standard deployment selected
Before You Begin Installation Type Deployment Type Deployment Scenario	Select the servers from the server pool on which to install the RD Session Host role service. If more than one server is selected, the RD Session Host role service will be deployed on all of them.           Server Pool         Selected           Selected         Selected
Role Services RD Connection Broker	Filter: Computer  A OSPREY.COM (1)
RD Web Access RD Session Host	FC-RDSH.OSPREY.COM 10.50.176.28
Completion	
	I Computer(s) found     1 Computer(s) selected
	< Previous Next > Deploy Cancel

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.

	Add Roles and Fe	atures Wizard		- 0
View progress			DESTIN Standard deplo	IATION SERVI
	The selected Remote Desktop Service	es role services are being installed	I.	
Installation Type	Server	Progress	Status	
Deployment Type	RD Connection Broker role service	e		
Deployment Scenario	FC-RDSH.OSPREY.COM	Per	nding	
Role Services				
RD Connection Broker	RD Web Access role service			
RD Web Access	FC-RDSH.OSPREY.COM	Per	nding	
RD Session Host				
Confirmation	RD Session Host role service			
Completion	FC-RDSH.OSPREY.COM	Per	nding	
		< Previous Next >	Deploy	Cancel

Figure 110 RDSH Role Install Progress

## 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**.

VMware Horizon View Administrator								
	Forme							
Cossions	Fallits							
Sessions 0 Problem vCenter VMs 0 Problem RDS Hosts 12 Events 0 1 0 System Health 1 2 0 0	Add Edit De	ete						
	Filter 👻	Find Clear						
	ID	RDS Hosts						
Inventory								
🖓 Dashboard								
👸 Users and Groups								
▶ Catalog								
▼ Resources								
Machines								
Persistent Disks								
▶ Monitoring								
▶ Policies								
View Configuration								

Figure 111 Add a Farm

9

Add Farm			
Identification and Settings	Identification and Settings		
Select RDS Hosts	General		
Ready to Complete	ID:	RDSH-Farm	
	Description:	Test Farm	
	Access group:	DomainUsers 🛛 🔻	
	Farm Settings		
	Default display protocol:	PCoIP 🛛 🔻 🔇	
	Allow users to choose protocol:	Yes   🔻	
	Empty session timeout (applications only):	After 🔻 1 Minutes	?
	When timeout occurs:	Disconnect   🔻	
	Log off disconnected sessions:	Never 🛛 🔻	
	Mirage Settings		
	🗌 Override global Mirage settir	ngs	
	Mirage Server configuration:		3
			Next > Cancel

Figure 112 Farm Description



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

dentification and Settings	Select RDS Hosts							
Select RDS Hosts	Select RDS hosts to add to the farm.							
Ready to Complete	DNS Name	Status						
	rdsh-nut-9.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-12.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-2.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nutanix-1.osprey.com	Windows Serv	150	Agent unreachable				
	rdsh-nut-3.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-8.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-4.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-11.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-6.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-10.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-5.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-7.osprey.com	Windows Serv	18	Agent unreachable				
	rdsh-nut-1.osprey.com	Windows Serv	18	Agent unreachable				

Figure 113 Select RDS Hosts



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

Addram	Ready to Complete						
Identification and Settings	Ready to Complete						
Select RDS Hosts	ID:	ID: RDSH-Farm					
Ready to Complete	Description:	Test Farm					
	Access Group:	DomainUsers					
	Default display protocol:	PCoIP					
	Allow users to choose protocol:	Yes					
	Empty session timeout (applications only):	1 minute					
	When timeout occurs:	Disconnect					
	Log off disconnected sessions:	Never					
	Number of RDS hosts in the farm:	2					
	Override global Mirage settings:	No					
	Mirage Server configuration:						
			< Back Finish Cancel				

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.

VMware Horizon View A	Administrator				About   Help   Logou	ıt (ospreyabreedy			
Updated 10/23/2014 11:50 AM 🛛 🍣	Farms								
Sessions         0           Problem vCenter VMs         0           Problem RDS Hosts         12	Add Edit Delete Vore Commands Access Group								
System Health	Filter 👻	Find	Clear Access Gr	oup: All 🗸 🗸		<b>B 2</b>			
	ID	RDS Hosts	Desktop Pool	Application Pools	Max number of connections	Enabled			
Inventory	RDSH-Farm	2		0	36	✓			
🚱 Dashboard									
🛗 Users and Groups									
▶ Catalog									
▼ Resources									
Farms									
Machines									
Monitoring									
Policies									
View Configuration									

### 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.
  - o psexec \\SERVERNAME -s schtasks /change /tn
  - "\Microsoft\Windows\TaskScheduler\Maintenance Configurator" /DISABLE o psexec \\SERVERNAME -s schtasks /change /tn
    - "\Microsoft\Windows\TaskScheduler\Idle Maintenance" /DISABLE
  - o psexec \\SERVERNAME -s schtasks /change /tn
    "\Microsoft\Windows\TaskScheduler\Regular Maintenance" /DISABLE
- Turn off the Master Image and take a snapshot for reference.

