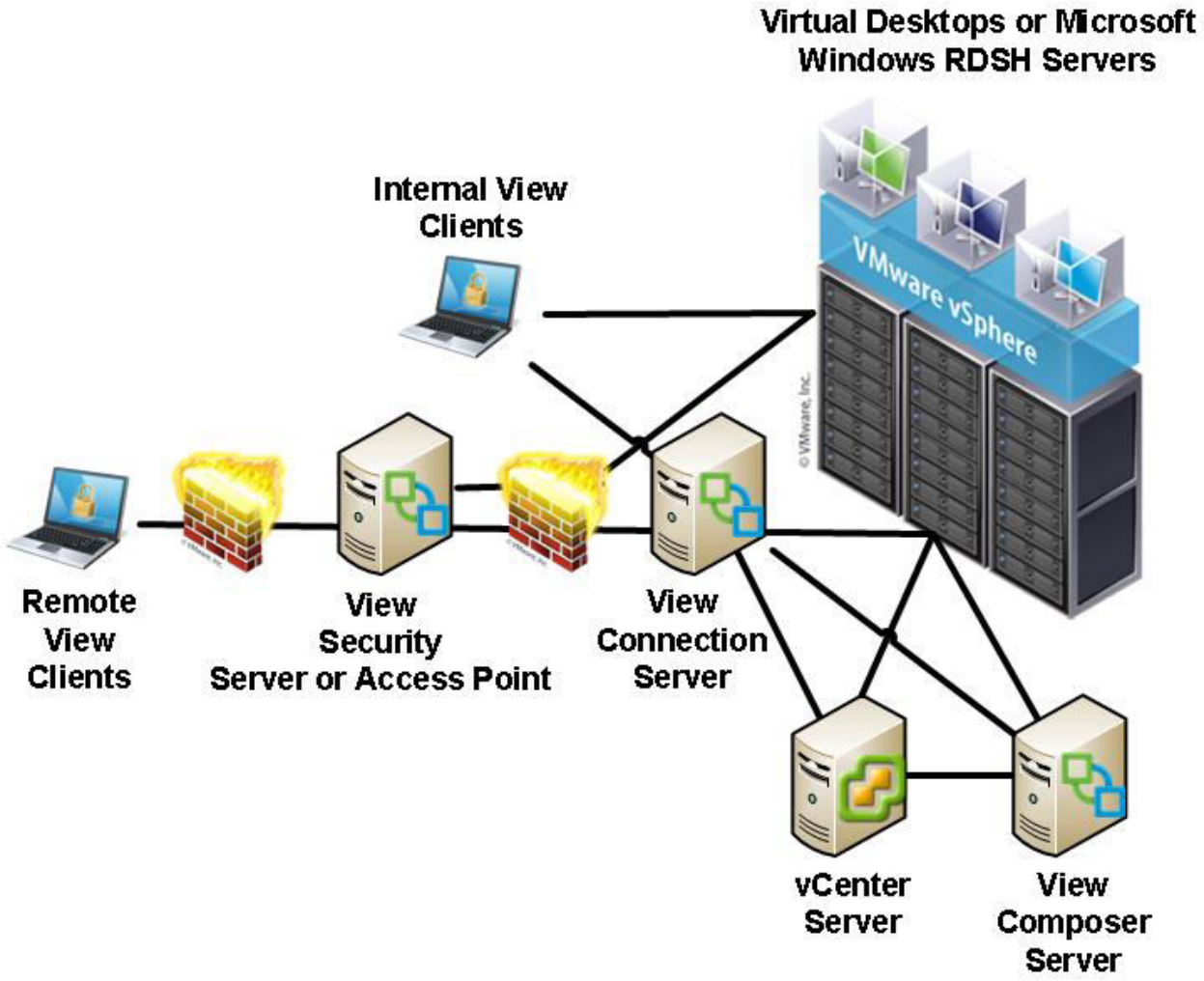
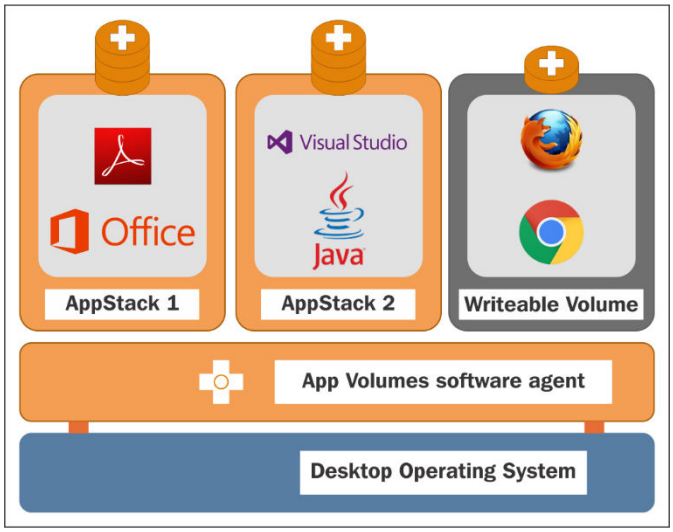
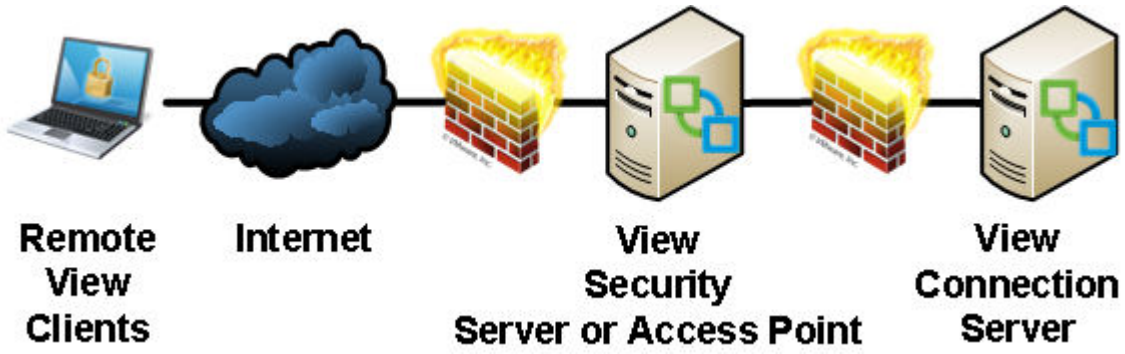
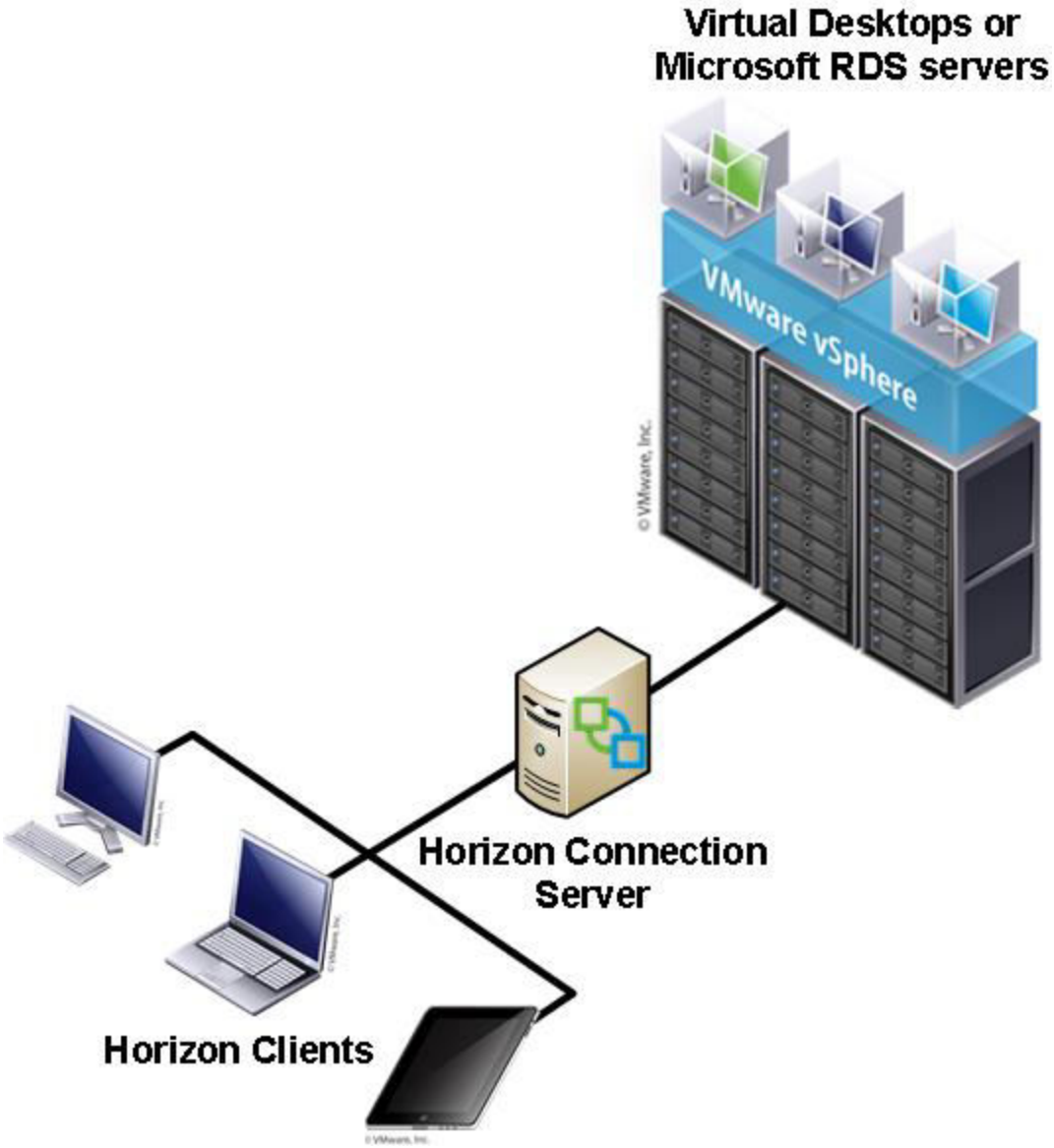
Chapter 1: VMware Horizon Infrastructure Overview

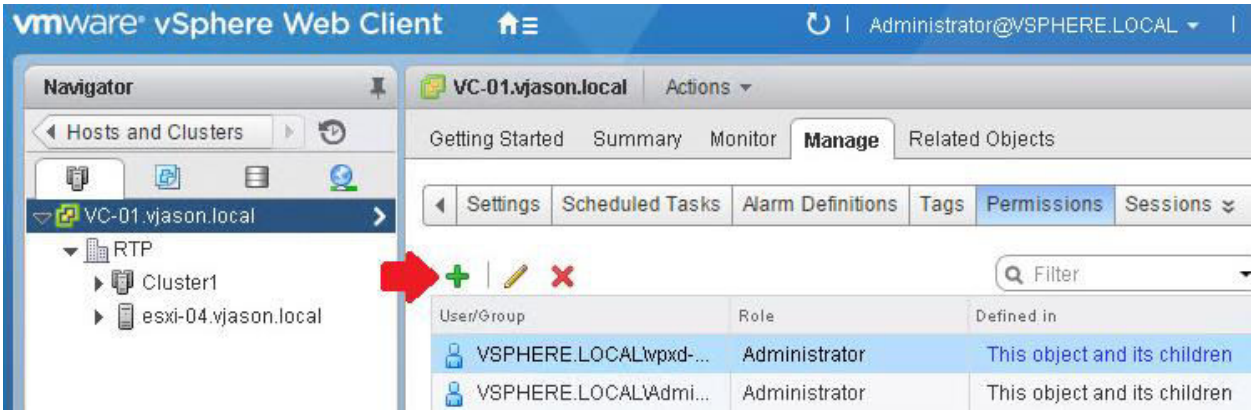


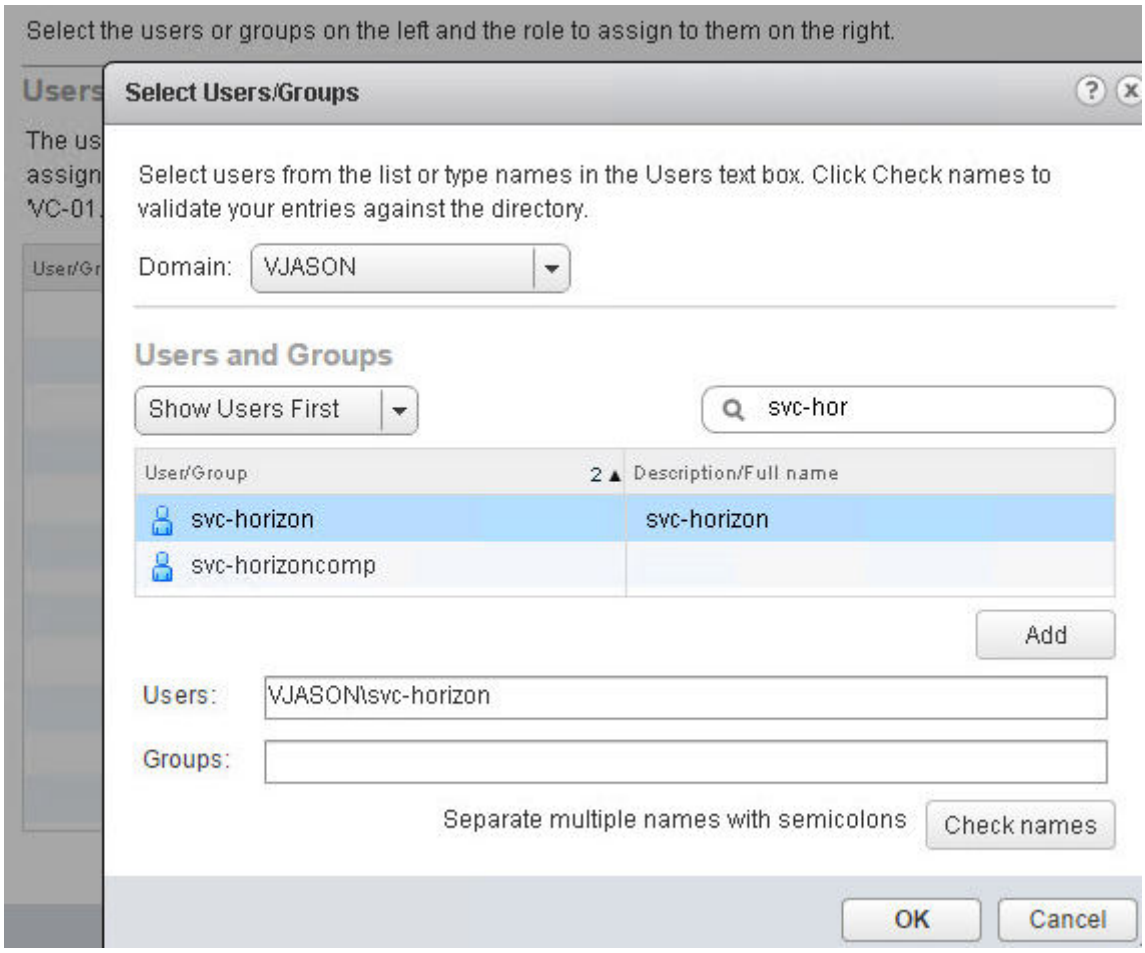


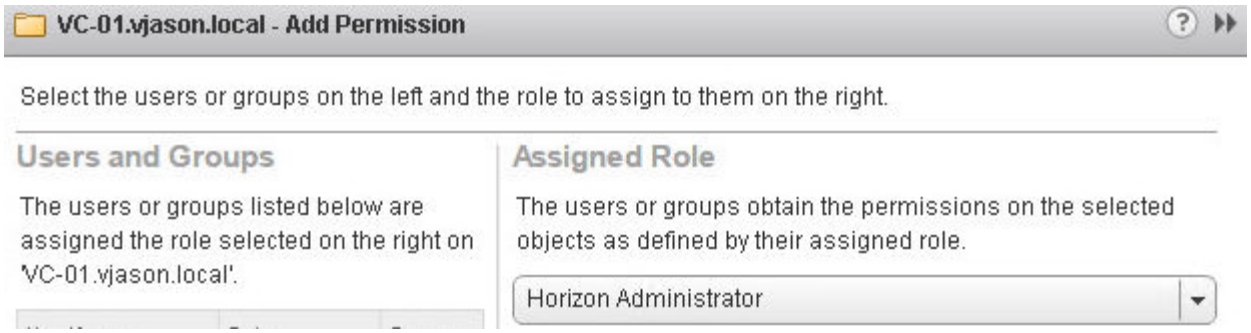

Remote View Clients
Internet
View Security Server or Access Point
View Connection Server

Chapter 2: Implementing Horizon Connection Server

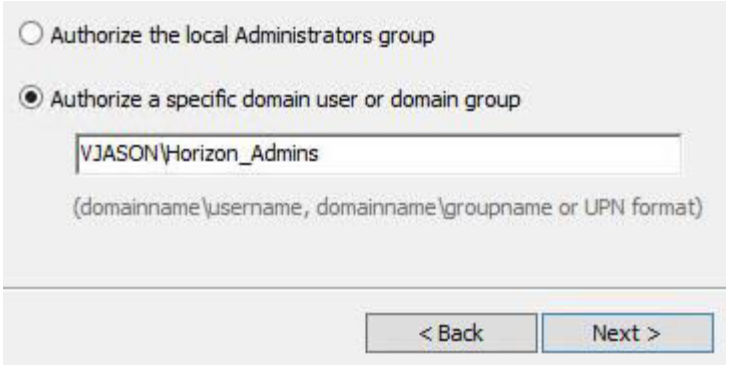




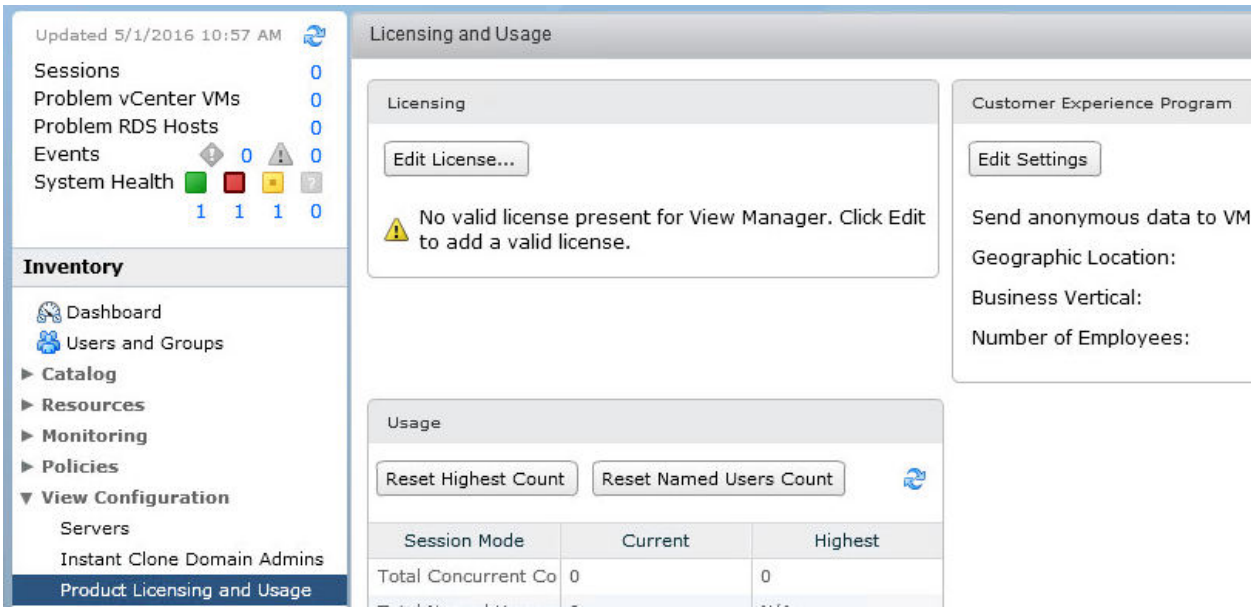

Select the users or groups on the left and the role to assign to them on the right.
Select Users/Groups
Select users from the list or type names in the Users text box. Click Check names to validate your entries against the directory.
Domain: VJASON
Users and Groups
Show Users First
svc-hor
User/Group
Description/Full name
svc-horizon
svc-horizon
svc-horizoncomp
Add
Users: VJASON\svc-horizon
Groups:
Separate multiple names with semicolons
Check names
OK
Cancel

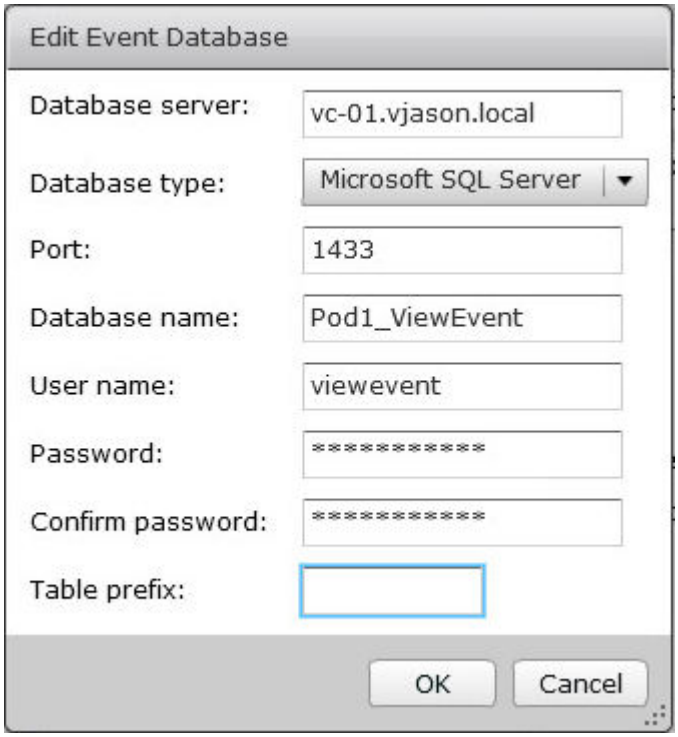

VC-01.vjason.local - Add Permission
Select the users or groups on the left and the role to assign to them on the right.
Users and Groups
The users or groups listed below are assigned the role selected on the right on 'VC-01.vjason.local'.
Assigned Role
The users or groups obtain the permissions on the selected objects as defined by their assigned role.
Horizon Administrator

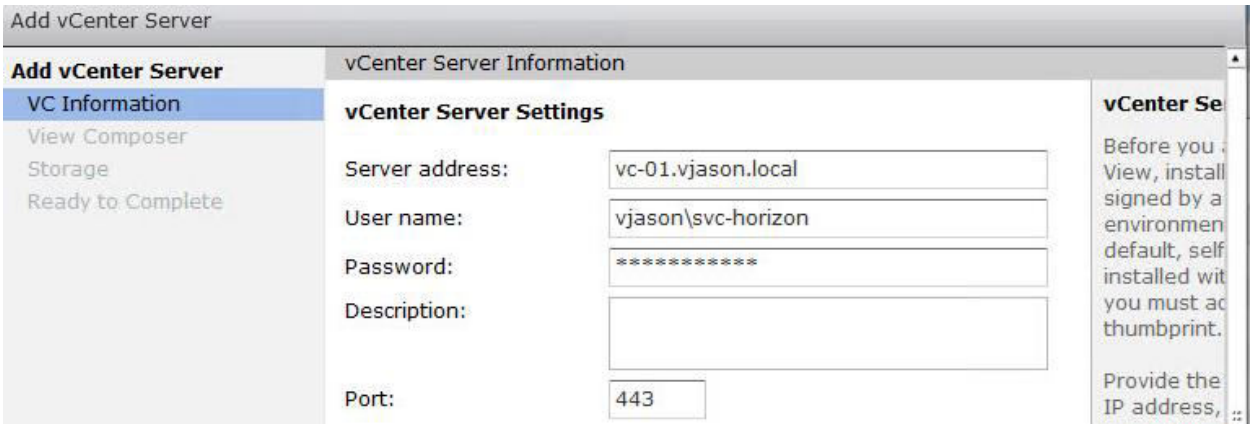
Installation Options
Select the type of Horizon 7 Connection Server instance you want to install.
Select the type of Horizon 7 Connection Server instance you want to install.
Horizon 7 Standard Server
Horizon 7 Replica Server
Horizon 7 Security Server
Horizon 7 Enrollment Server
Install HTML Access
Perform a standard full install. This is used to install a standalone instance of Horizon 7 Connection Server or the first instance of a group of servers.
Specify what IP protocol version shall be used to configure this Horizon 7 Connection Server instance:
IPv4
IPv6
This server will be configured to choose the IPv4 protocol for establishing all connections.

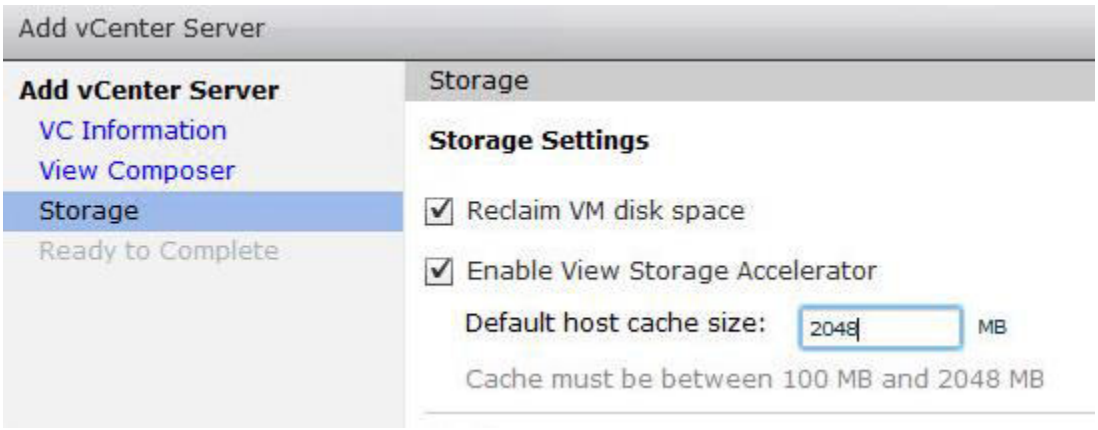

Authorize the local Administrators group
Authorize a specific domain user or domain group
VJASON\Horizon_Admins
(domainname\username, domainname\groupname or UPN format)
< Back
Next >

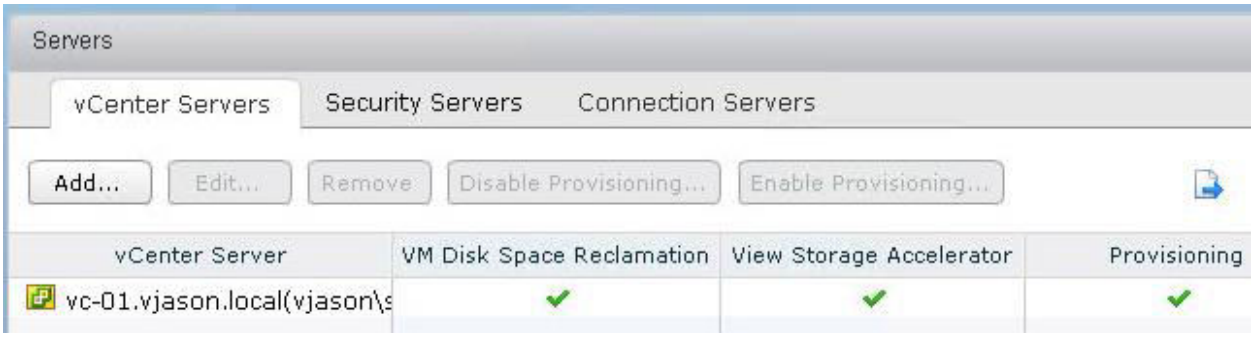
User name:
administrator
Password:
Domain:
VJASON
Remember user name
Log In
VMware Horizon 7
Administrator


Updated 5/1/2016 10:57 AM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 0
System Health
1 1 1 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Monitoring
Policies
View Configuration
Servers
Instant Clone Domain Admins
Product Licensing and Usage
Licensing and Usage
Licensing
Edit License...
No valid license present for View Manager. Click Edit to add a valid license.
Customer Experience Program
Edit Settings
Send anonymous data to VM
Geographic Location:
Business Vertical:
Number of Employees:
Usage
Reset Highest Count
Reset Named Users Count
Session Mode
Current
Highest
Total Concurrent Co
0
0


Edit Event Database
Database server:
vc-01.vjason.local
Database type:
Microsoft SQL Server
Port:
1433
Database name:
Pod1_ViewEvent
User name:
viewevent
Password:
****
Confirm password:
****
Table prefix:
OK
Cancel

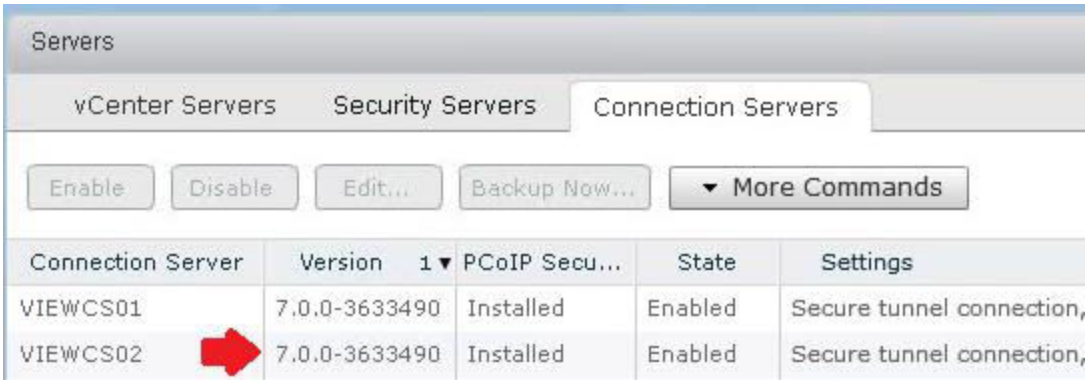

Add vCenter Server
Add vCenter Server
VC Information
View Composer
Storage
Ready to Complete
vCenter Server Information
vCenter Server Settings
Server address:
vc-01.vjason.local
User name:
vjason\svc-horizon
Password:
****
Description:
Port:
443
vCenter Se
Before you
View, install
signed by a
environmen
default, self
installed wit
you must ac
thumbprint.
Provide the
IP address,

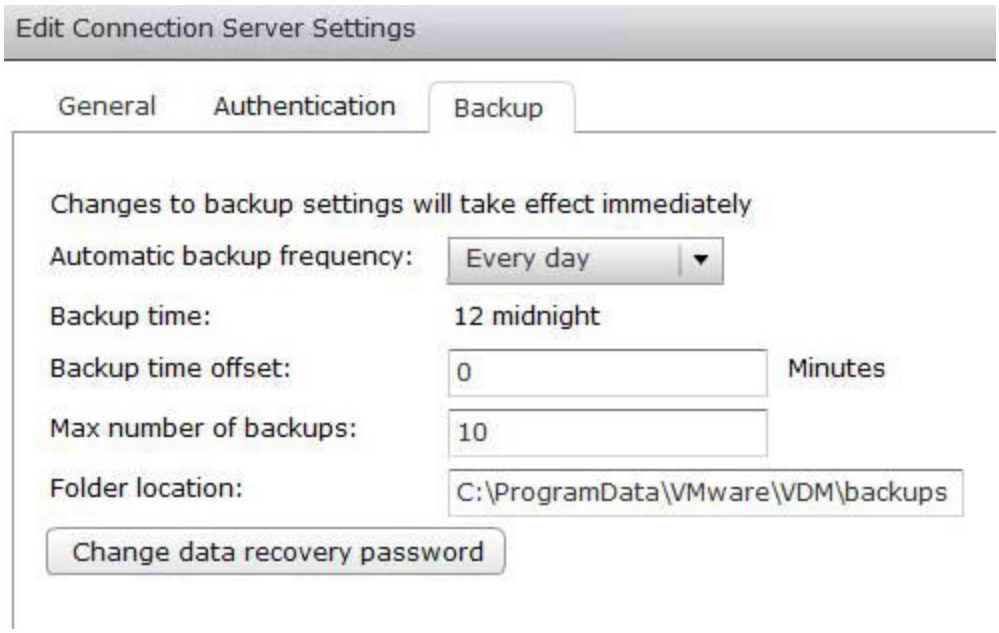

Add vCenter Server
Add vCenter Server
VC Information
View Composer
Storage
Ready to Complete
Storage
Storage Settings
Reclaim VM disk space
Enable View Storage Accelerator
Default host cache size:
2048
MB
Cache must be between 100 MB and 2048 MB

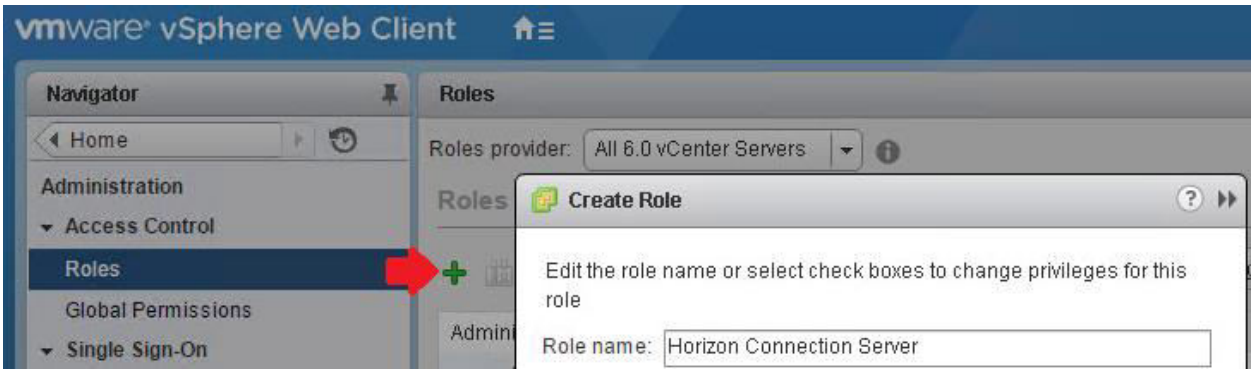

Servers
vCenter Servers
Security Servers
Connection Servers
Add...
Edit...
Remove
Disable Provisioning...
Enable Provisioning...
vCenter Server
VM Disk Space Reclamation
View Storage Accelerator
Provisioning
vc-01.vjason.local(vjason\s

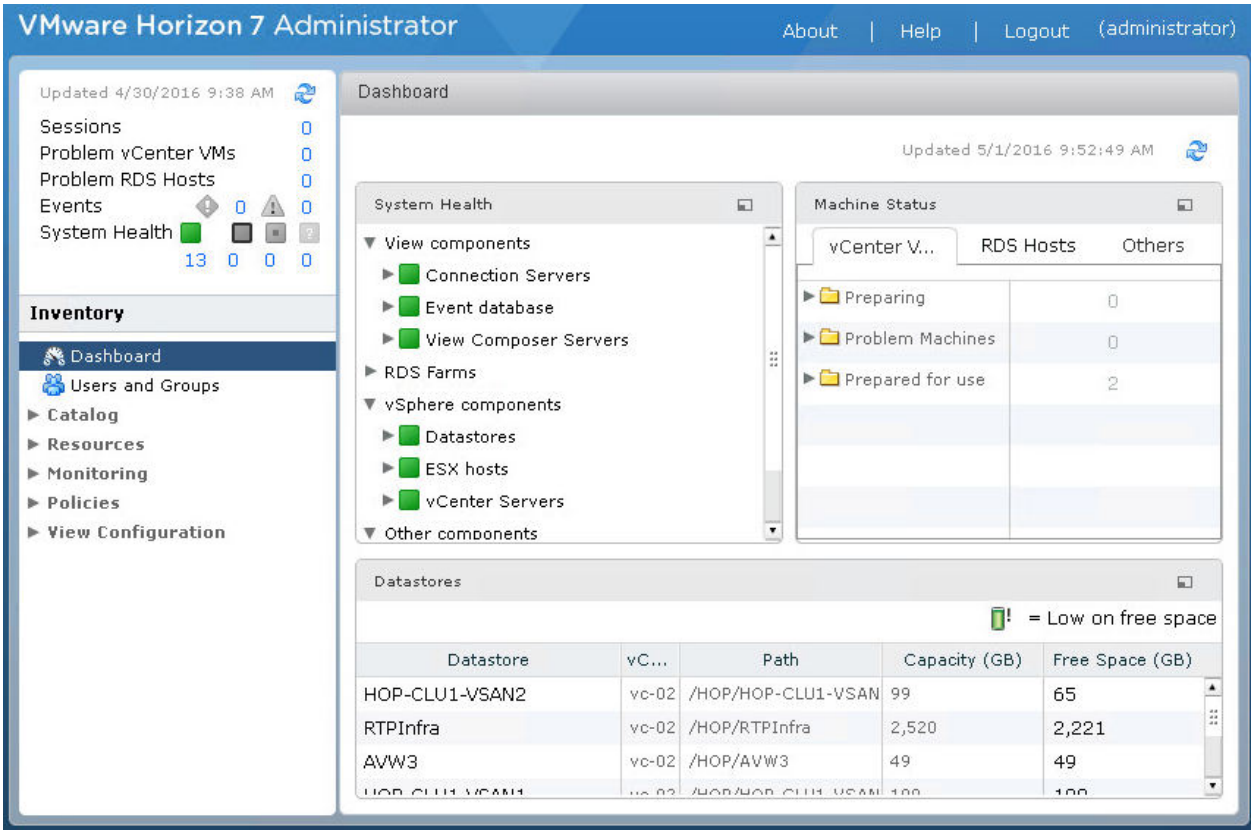
A group of Horizon 7 Connection Server instances that share the same configuration data is called a Horizon 7 Connection Server group. Setup will replicate configuration data from an existing server instance.
Enter the server name of an existing Horizon 7 Connection Server instance to make this server part of that group.
Example server: view.internal.vmware.com.
Server:
viewcs03.vjason.local
(hostname or IP address)

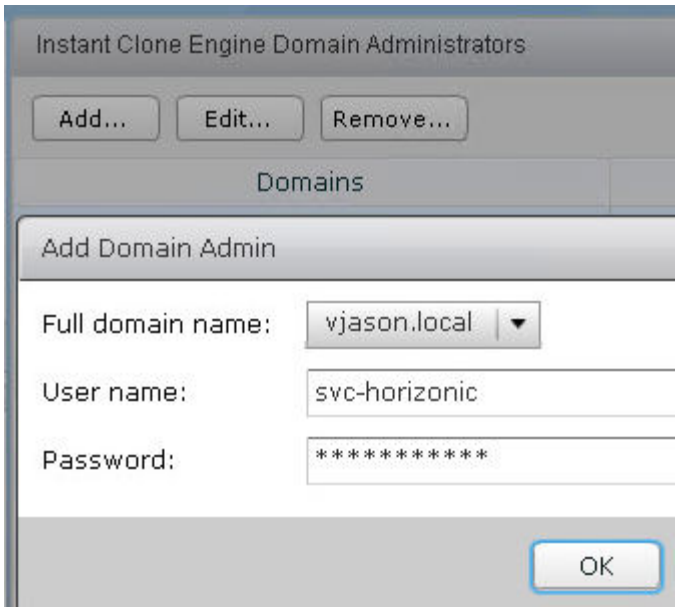
Updated 5/1/2016 11:11 AM
Sessions 1
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 3
System Health
24 0 0 0
Inventory
Servers
vCenter Servers
Security Servers
Connection Servers
Enable
Disable
Edit...
Backup Now...
More Commands
Connection Server
Version 1
PCoIP Secu...
State
Settings
VIEWCS01
7.0.0-3633490
Installed
Enabled
Secure tunnel connection,

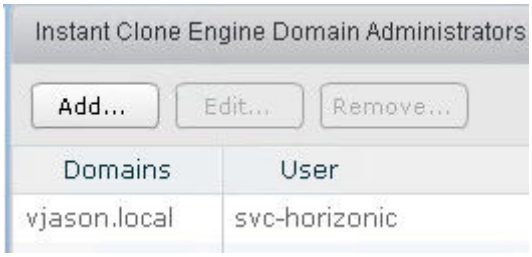

Servers
vCenter Servers
Security Servers
Connection Servers
Enable
Disable
Edit...
Backup Now...
More Commands
Connection Server
Version 1
PCoIP Secu...
State
Settings
VIEWCS01
7.0.0-3633490
Installed
Enabled
Secure tunnel connection,
VIEWCS02
7.0.0-3633490
Installed
Enabled
Secure tunnel connection,


Edit Connection Server Settings
General
Authentication
Backup
Changes to backup settings will take effect immediately
Automatic backup frequency:
Every day
Backup time:
12 midnight
Backup time offset:
0
Minutes
Max number of backups:
10
Folder location:
C:\ProgramData\VMware\VDM\backups
Change data recovery password

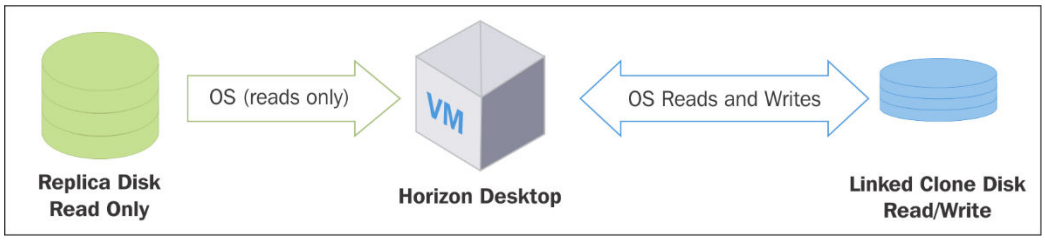

vmware vSphere Web Client
Navigator
Home
Administration
Access Control
Roles
Global Permissions
Single Sign-On
Roles
Roles provider:
All 6.0 vCenter Servers
Roles
Create Role
Edit the role name or select check boxes to change privileges for this role
Role name:
Horizon Connection Server

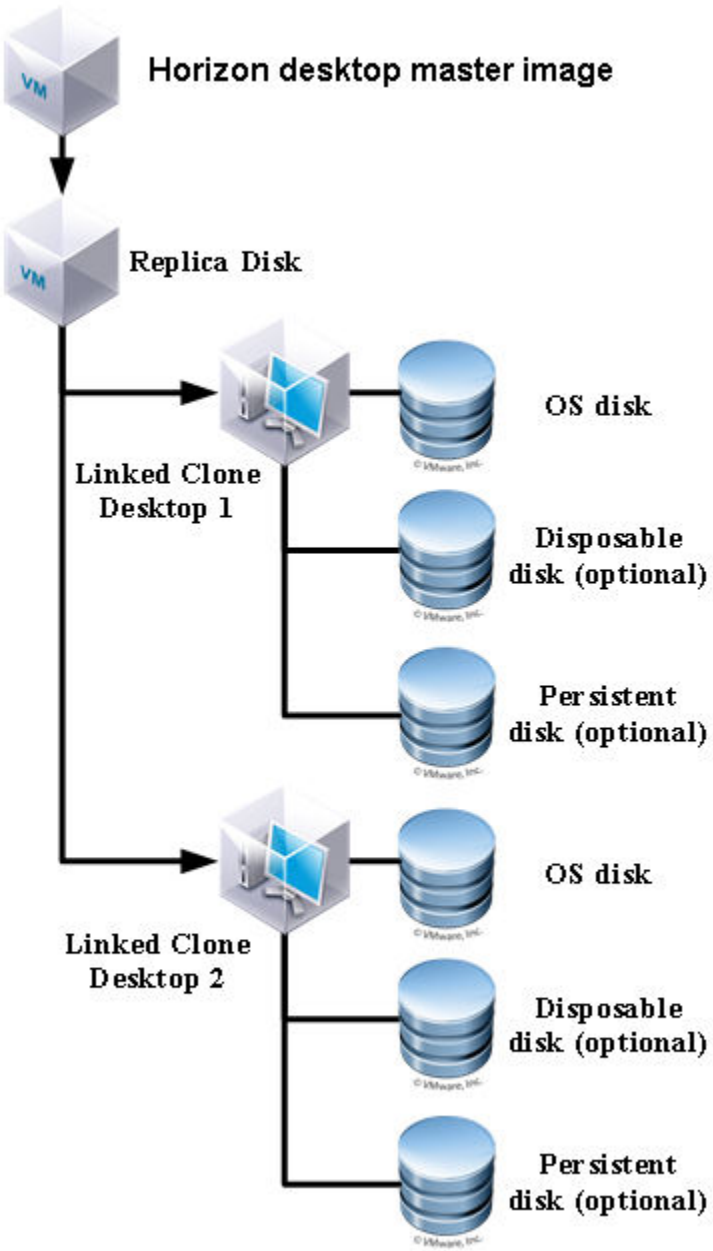

VMware Horizon 7 Administrator
About | Help | Logout (administrator)
Updated 4/30/2016 9:38 AM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 0
System Health
13 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Monitoring
Policies
View Configuration
Dashboard
Updated 5/1/2016 9:52:49 AM
System Health
View components
Connection Servers
Event database
View Composer Servers
RDS Farms
vSphere components
Datastores
ESX hosts
vCenter Servers
Other components
Machine Status
vCenter V...
RDS Hosts
Others
Preparing 0
Problem Machines 0
Prepared for use 2
Datastores
= Low on free space
Datastore
vC...
Path
Capacity (GB)
Free Space (GB)
HOP-CLU1-VSAN2 vc-02 /HOP/HOP-CLU1-VSAN 99 65
RTPInfra vc-02 /HOP/RTPInfra 2,520 2,221
AVW3 vc-02 /HOP/AVW3 49 49

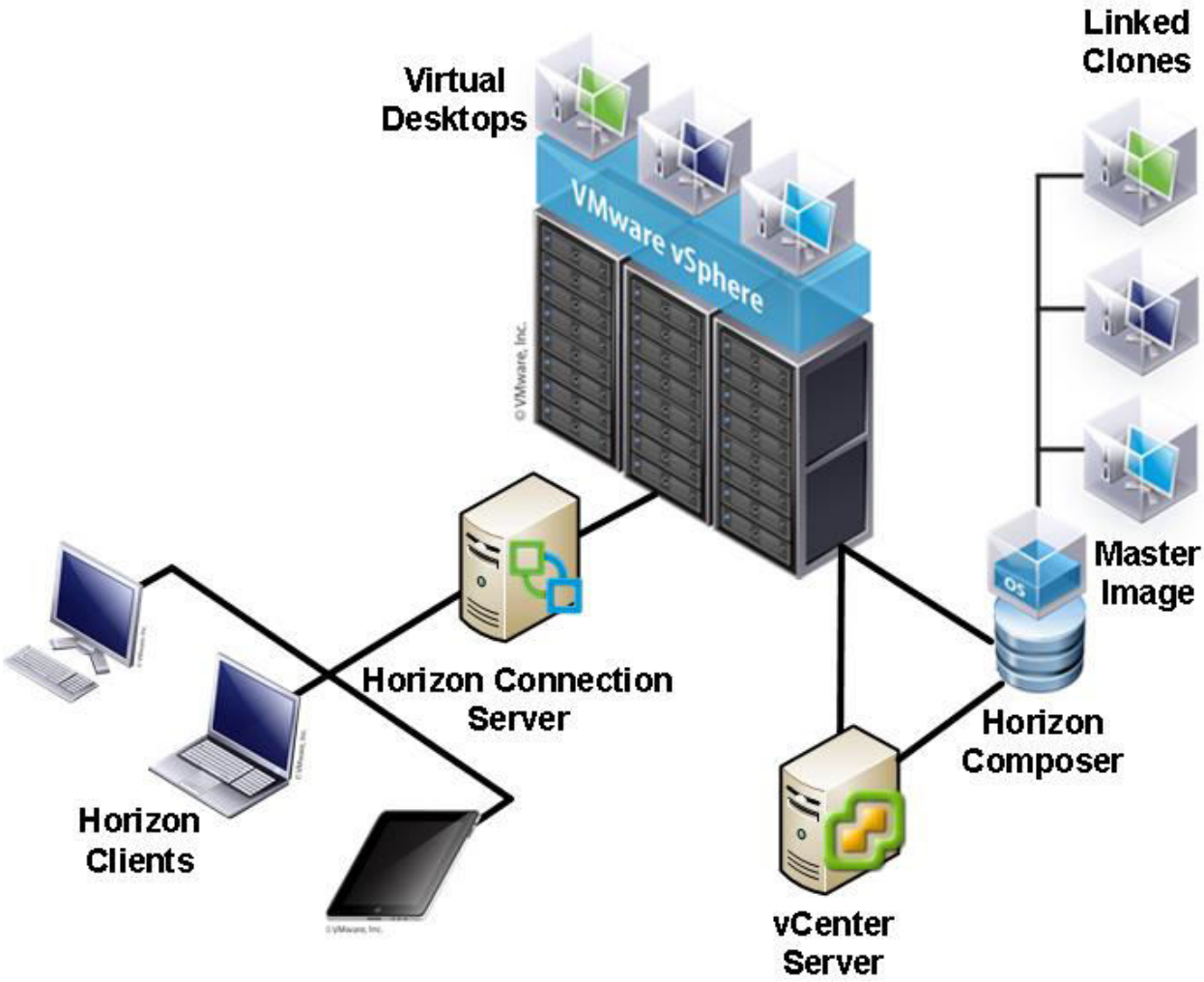

Instant Clone Engine Domain Administrators
Add...
Edit...
Remove...
Domains
Add Domain Admin
Full domain name:
vjason.local
User name:
svc-horizonic
Password:
****
OK

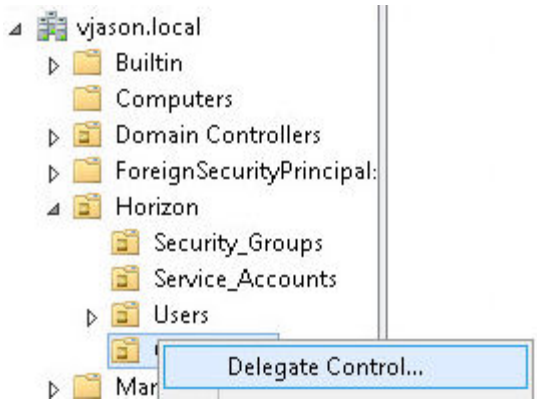

Instant Clone Engine Domain Administrators
Add...
Edit...
Remove...
Domains
User
vjason.local
svc-horizonic

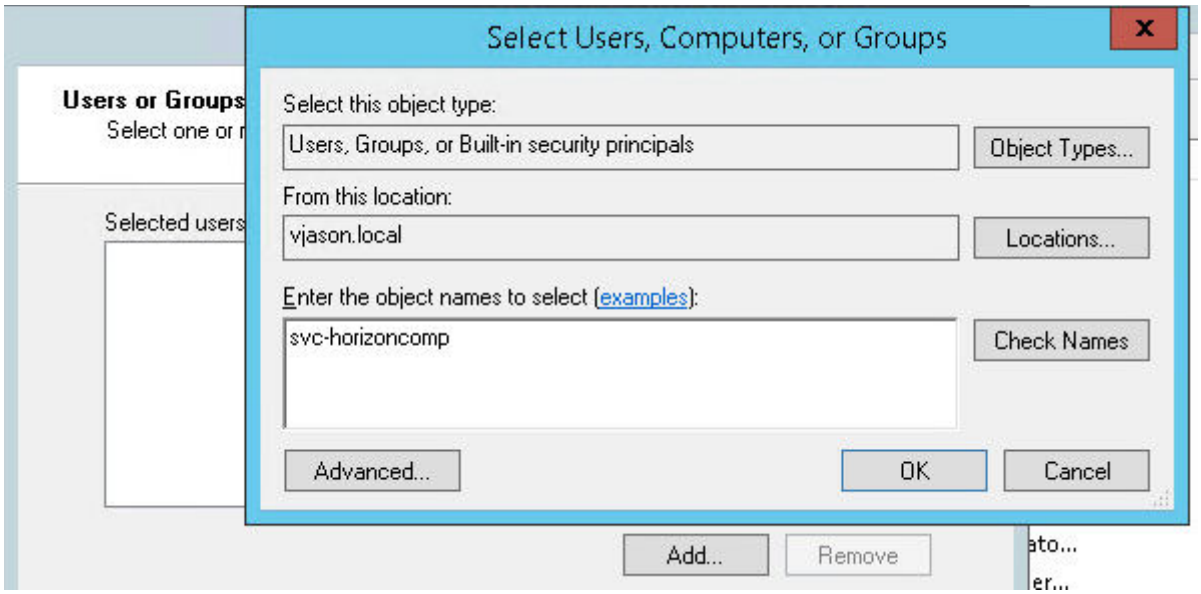
Chapter 3: Implementing Horizon Composer

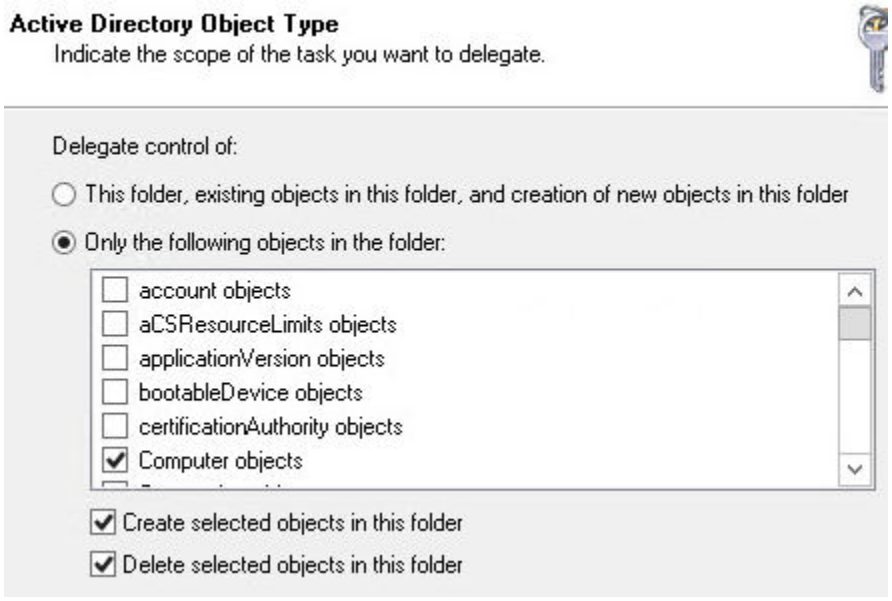


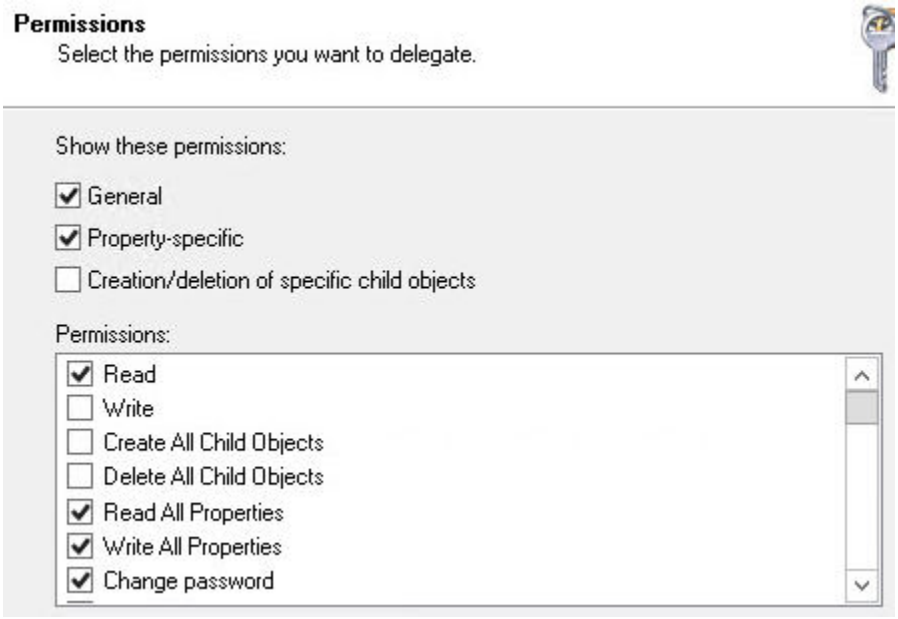


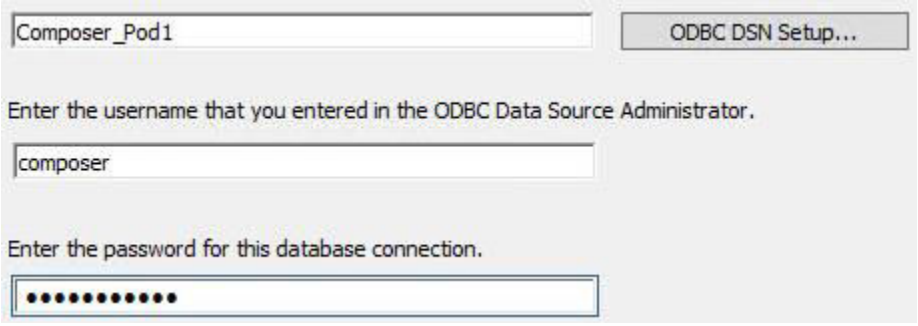

Linked
Clones
Virtual
Desktops
VMware vSphere
Master
Image
Horizon Connection
Server
Horizon
Composer
Horizon
Clients
vCenter
Server


vjason.local
Builtin
Computers
Domain Controllers
ForeignSecurityPrincipal:
Horizon
Security_Groups
Service_Accounts
Users
Delegate Control...

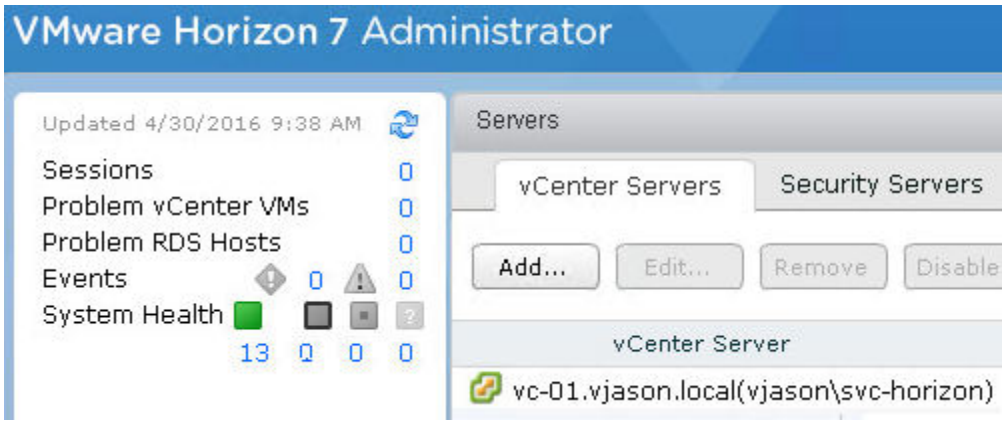

Select Users, Computers, or Groups
Select this object type:
Users, Groups, or Built-in security principals
Object Types...
From this location:
vjason.local
Locations...
Enter the object names to select (examples):
svc-horizoncomp
Check Names
Advanced...
OK
Cancel
Users or Groups
Select one or
Selected users
Add...
Remove


Active Directory Object Type
Indicate the scope of the task you want to delegate.
Delegate control of:
This folder, existing objects in this folder, and creation of new objects in this folder
Only the following objects in the folder:
account objects
aCSResourceLimits objects
applicationVersion objects
bootableDevice objects
certificationAuthority objects
Computer objects
Create selected objects in this folder
Delete selected objects in this folder


Permissions
Select the permissions you want to delegate.
Show these permissions:
General
Property-specific
Creation/deletion of specific child objects
Permissions:
Read
Write
Create All Child Objects
Delete All Child Objects
Read All Properties
Write All Properties
Change password


Composer_Pod1
ODBC DSN Setup...
Enter the username that you entered in the ODBC Data Source Administrator.
composer
Enter the password for this database connection.
••••••••••••

VMware Horizon 7 Composer Port Settings
Enter the connection information for the VMware Horizon 7 Composer.
Specify the web access port and security settings for VMware Horizon 7 Composer.
SOAP Port:
18443
SSL Certificate:
No SSL certificates were found on your machine.
A default SSL certificate will be created for you.



Edit vCenter Server

View Composer Settings

- ○ Do not use View Composer
- ○ View Composer co-installed with vCenter Server

  Choose this if View Composer is installed on the same server as vCenter

  Port: 18443
- ◉ Standalone View Composer Server

  Choose this if View Composer is installed on a separate server from vCenter

  Server address: viewcomp01.vjason.local

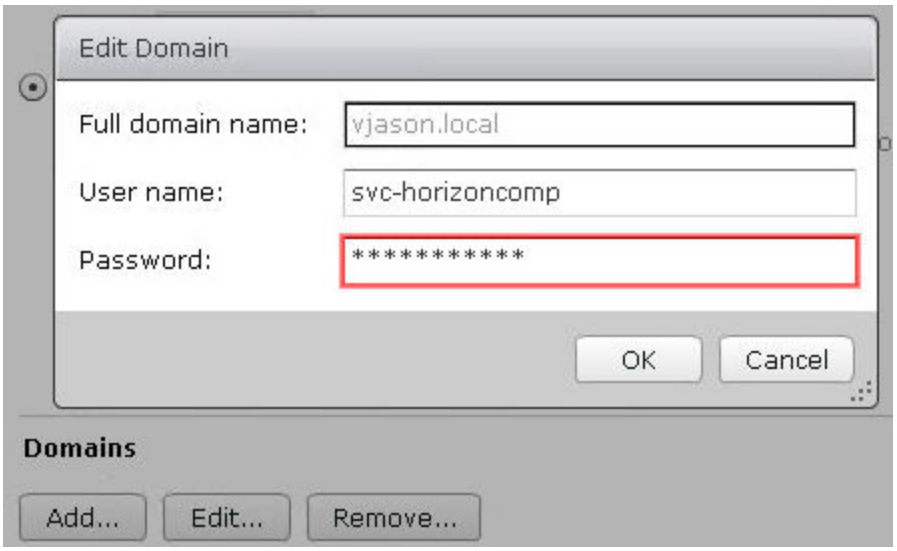
  User name: vjason\svc-horizoncomp

  Password: *******

  Port: 18443

Domains

Verify Server Information



Standalone View Composer Server

Choose this if View Composer is installed on a separate server from vCenter

Server address: viewcomp01.vjason.local

User name: vjason\svc-horizoncomp

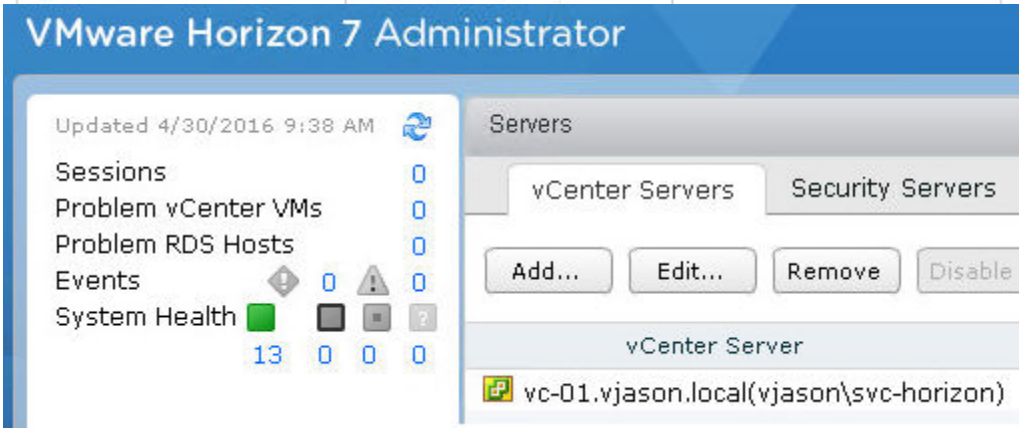
Password: *******

Port: 18443

Domains

Add... Edit... Remove...

Domains	User	Desktop Pool
vjason.local	svc-horizoncomp	



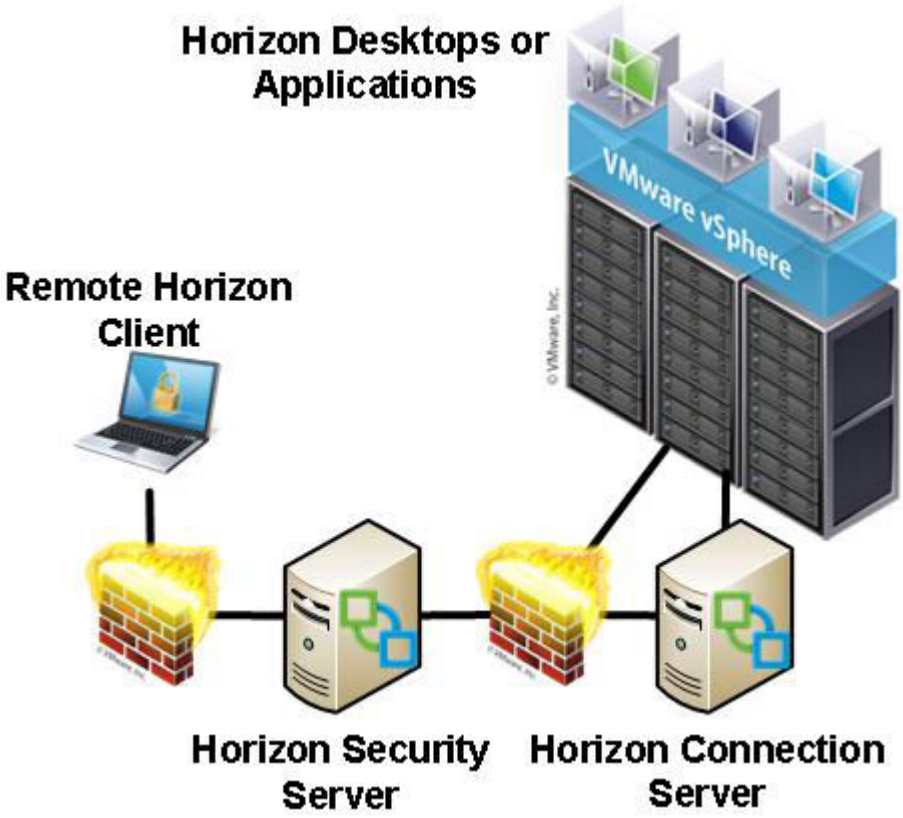
```
c:\Windows\Microsoft.NET\Framework\v4.0.30319>aspnet_regiis.exe -px "SviKeyConta
iner" "keys.xml" -pri
Microsoft (R) ASP.NET RegIIS version 4.0.30319.34209
Administration utility to install and uninstall ASP.NET on the local machine.
Copyright (C) Microsoft Corporation.  All rights reserved.
Exporting RSA Keys to file...
Succeeded!
```

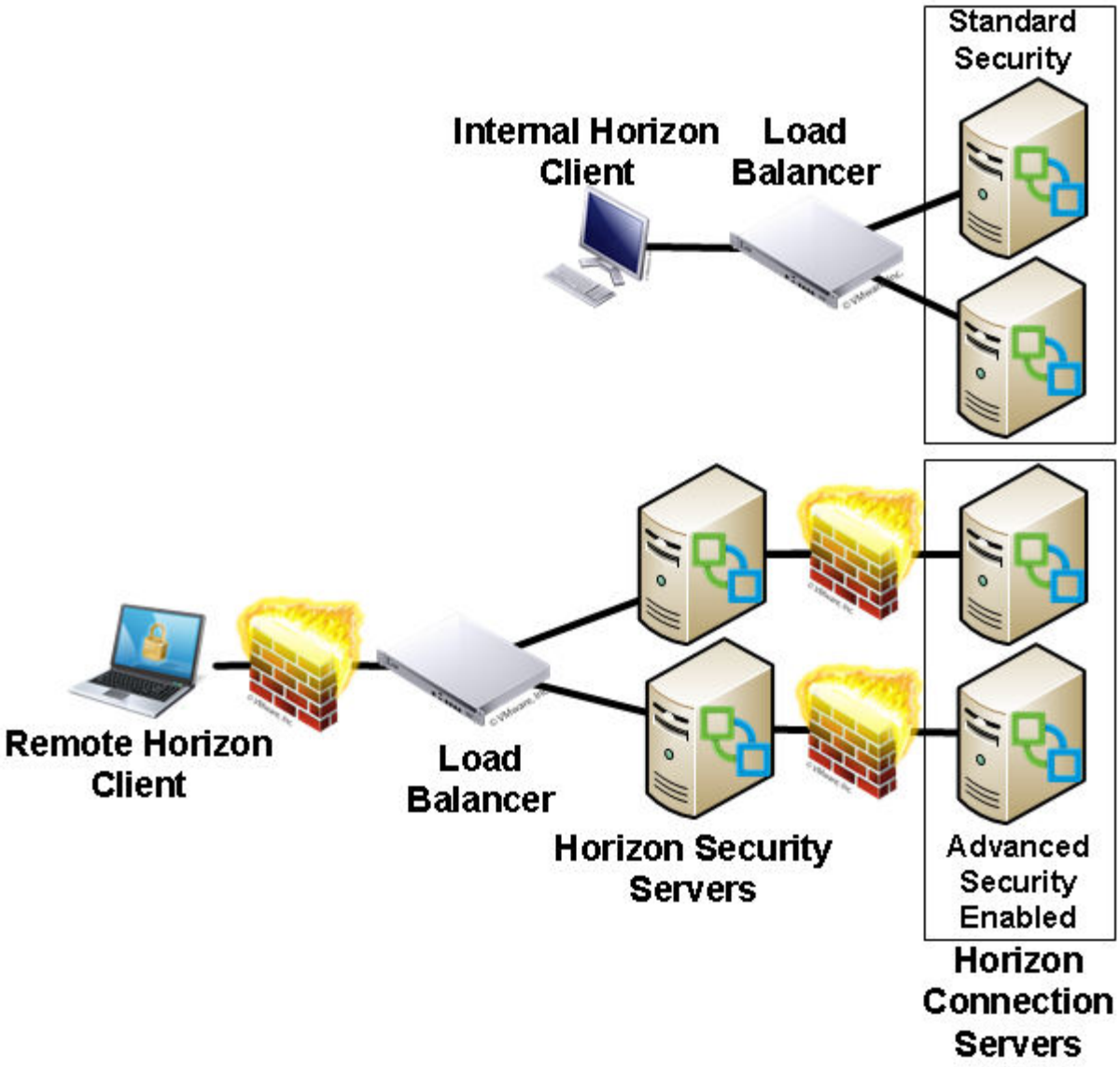
```
Object type AdConfigEntryDo found in the backup
Object type VcConfigEntryDo found in the backup
Object type AuthorizedUserDo found in the backup
Object type SequenceNumDo found in the backup
Object type VmNameDo found in the backup
Object type GuestComputerNameDo found in the backup
Object type ReplicaDo found in the backup
Object type DeploymentGroupDo found in the backup
Object type SimCloneDo found in the backup
Restoring data finished successfully.

c:\Program Files (x86)\VMware\VMware View Composer>_
```

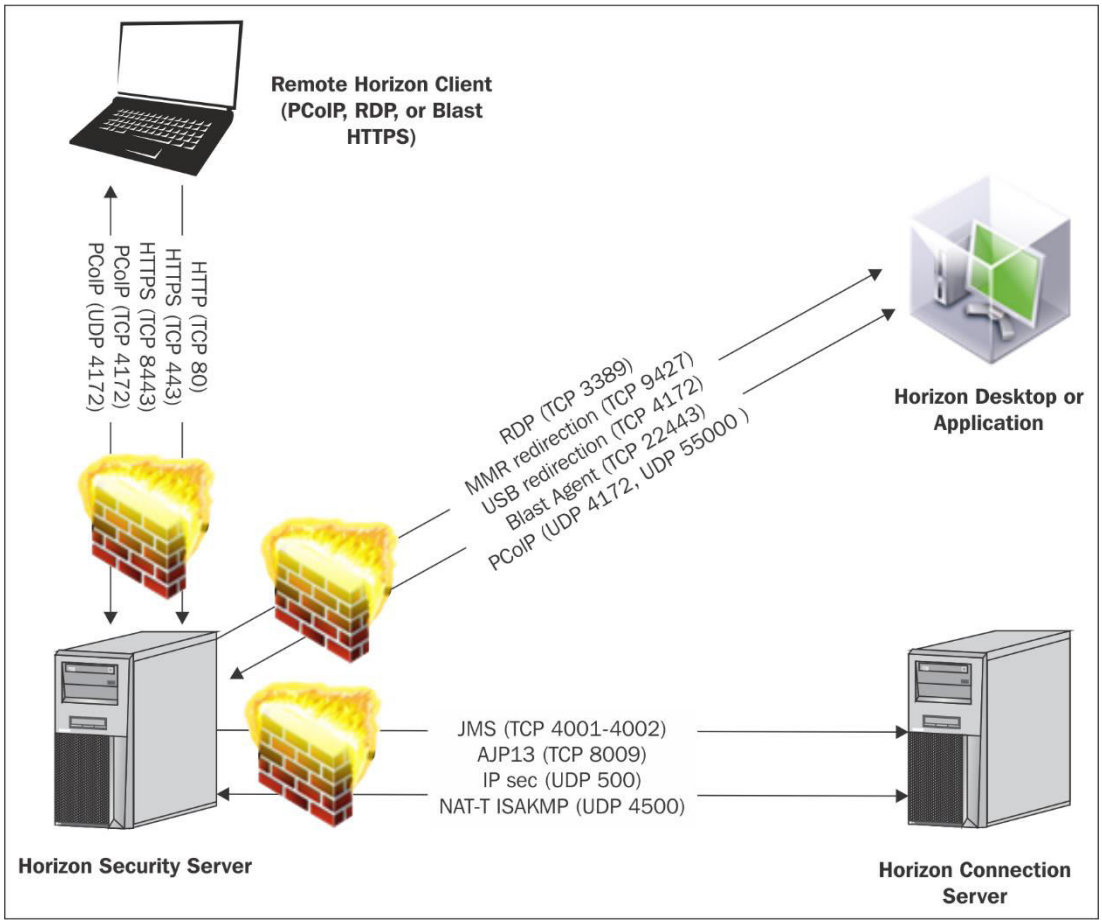
```
c:\Windows\Microsoft.NET\Framework\v4.0.30319>aspnet_regiis.exe -pi "SviKeyConta
iner" "C:\Temp\keys.xml" -exp
Microsoft (R) ASP.NET RegIIS version 4.0.30319.34209
Administration utility to install and uninstall ASP.NET on the local machine.
Copyright (C) Microsoft Corporation.  All rights reserved.
Importing RSA Keys from file..
Succeeded!
```

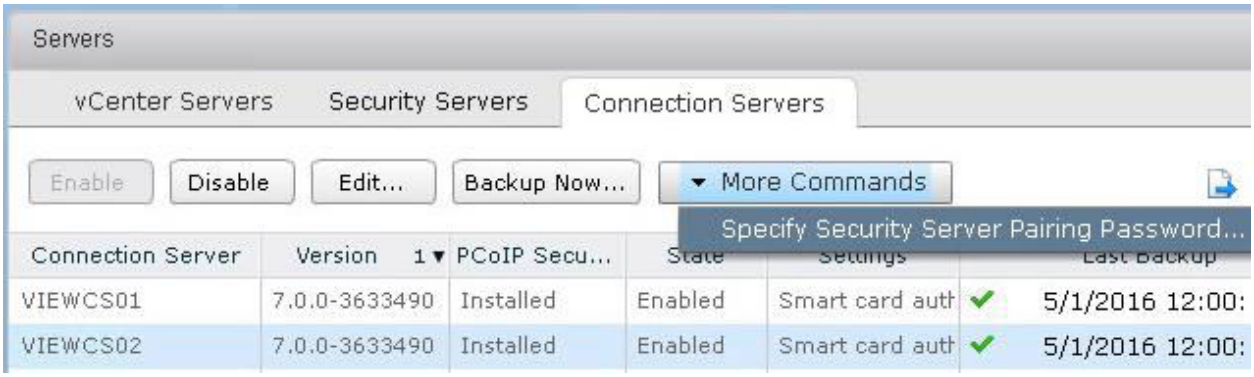
```
c:\Program Files (x86)\VMware\VMware View Composer>sviconfig -operation=restored
ata -dsnname=Composer_Pod1 -username=composer -password=Password123 -backupfilep
ath="C:\Temp\Backup-20151223101427-viewcomp01_vjason_local.SVI"
```

Chapter 4: Implementing Horizon Security Server

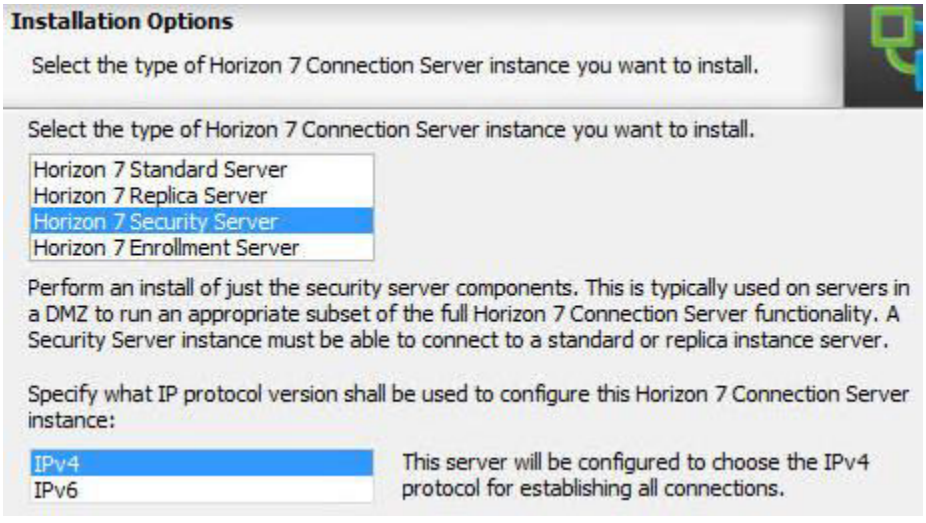


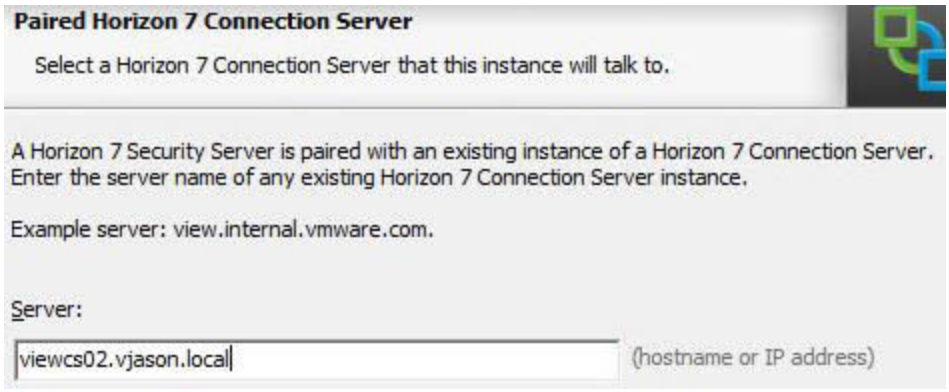

Standard Security
Internal Horizon Client
Load Balancer
Remote Horizon Client
Load Balancer
Horizon Security Servers
Advanced Security Enabled
Horizon Connection Servers


Remote Horizon Client
(PCoIP, RDP, or Blast
HTTPS)
HTTP (TCP 80)
HTTPS (TCP 443)
PCoIP (TCP 4172)
PCoIP (UDP 4172)
RDP (TCP 3389)
MMR redirection (TCP 9427)
USB redirection (TCP 4172)
Blast Agent (TCP 22443)
PCoIP (UDP 4172, UDP 55000)
Horizon Desktop or
Application
JMS (TCP 4001-4002)
AJP13 (TCP 8009)
IP sec (UDP 500)
NAT-T ISAKMP (UDP 4500)
Horizon Security Server
Horizon Connection
Server


Servers
vCenter Servers
Security Servers
Connection Servers
Enable
Disable
Edit...
Backup Now...
More Commands
Specify Security Server Pairing Password...
Connection Server
Version
PCoIP Secu...
State
Settings
Last Backup
VIEWCS01
7.0.0-3633490
Installed
Enabled
Smart card auth
5/1/2016 12:00:
VIEWCS02
7.0.0-3633490
Installed
Enabled
Smart card auth
5/1/2016 12:00:

Specify Security Server Pairing Password
This password is a one-time password that allows a security server to be paired with this connection server. It is invalidated when any authentication attempt is made for pairing.
This password will also be invalidated based on the password timeout value below.
This View environment is configured to enable IPsec for communication between the VIEWCS02 Connection Server and the security server. IPsec requires the Windows Firewall to be turned on for the active profile used for pairing the Connection Server to the Security Server.
Please ensure the Windows Firewall for the active profile on the VIEWCS02 Connection Server is turned on before continuing. You can turn the Windows Firewall on for the active profile from "Windows Firewall with Advanced Security" under "Administrative Tools".
Pairing password:
****
Confirm password:
****
Password timeout:
30
Minutes
OK
Cancel

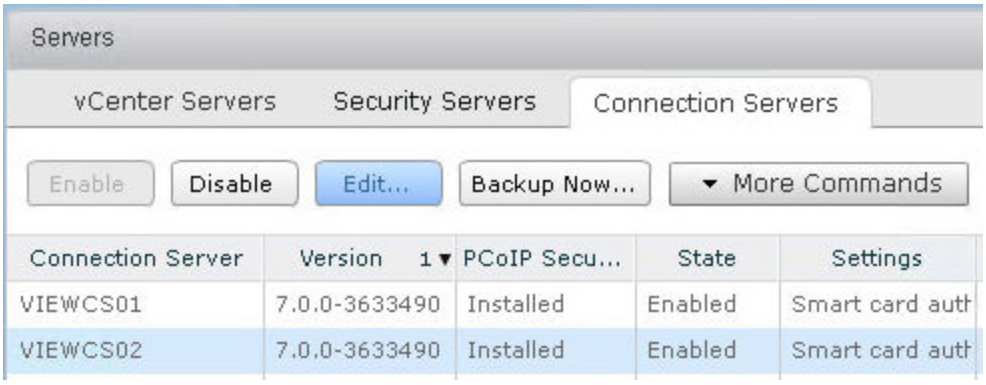

Installation Options
Select the type of Horizon 7 Connection Server instance you want to install.
Select the type of Horizon 7 Connection Server instance you want to install.
Horizon 7 Standard Server
Horizon 7 Replica Server
Horizon 7 Security Server
Horizon 7 Enrollment Server
Perform an install of just the security server components. This is typically used on servers in a DMZ to run an appropriate subset of the full Horizon 7 Connection Server functionality. A Security Server instance must be able to connect to a standard or replica instance server.
Specify what IP protocol version shall be used to configure this Horizon 7 Connection Server instance:
IPv4
IPv6
This server will be configured to choose the IPv4 protocol for establishing all connections.

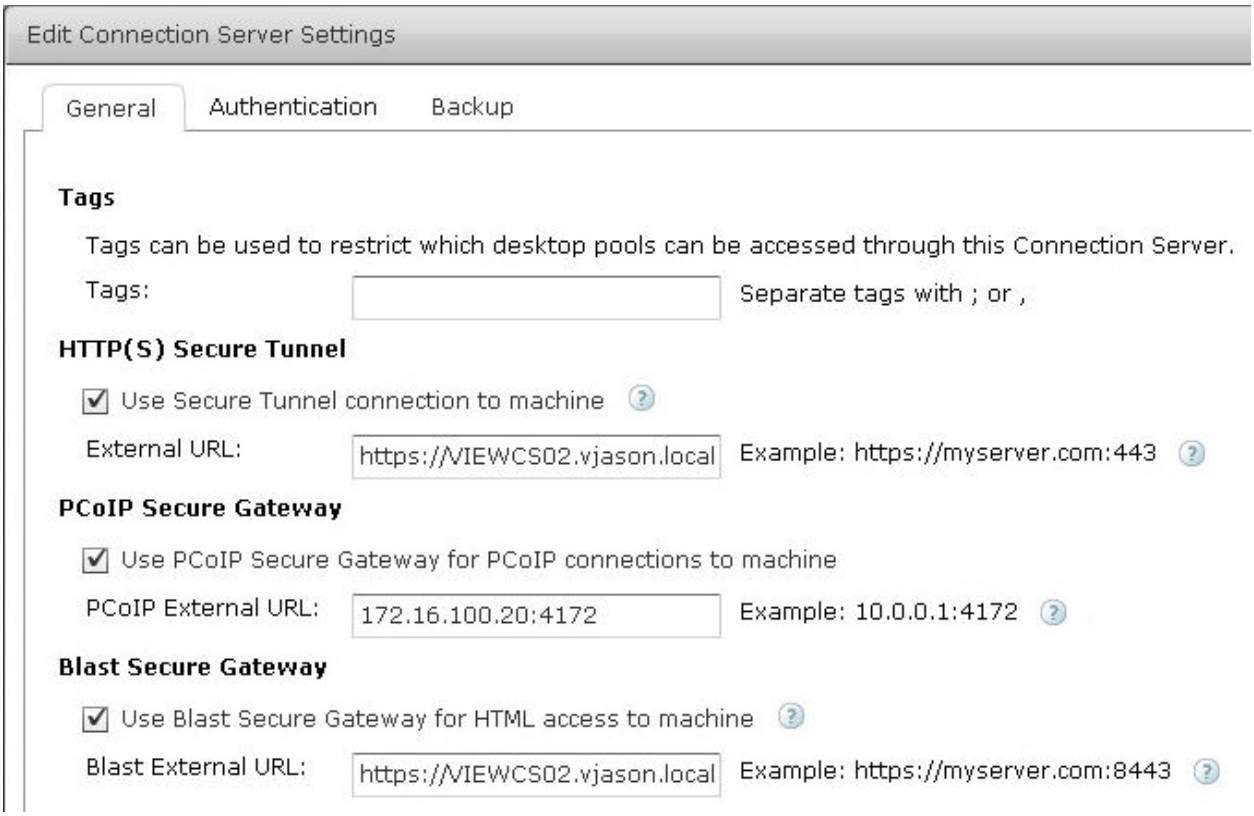

Paired Horizon 7 Connection Server
Select a Horizon 7 Connection Server that this instance will talk to.
A Horizon 7 Security Server is paired with an existing instance of a Horizon 7 Connection Server. Enter the server name of any existing Horizon 7 Connection Server instance.
Example server: view.internal.vmware.com.
Server:
viewcs02.vjason.local
(hostname or IP address)

Paired Horizon 7 Connection Server Password
Enter a password to pair with the Horizon 7 Connection Server.
A password is required to pair this Security Server with a Connection Server.
First specify the Pairing Password for the Connection Server in Horizon 7 Administrator.
This password is set in Horizon 7 Administrator in "Horizon 7 Configuration" > "Servers". Select the specified Connection Server and go to "More Commands" > "Specify Security Server Pairing Password".
Password:
••••

Horizon 7 Security Server Configuration
Specify Security Server settings.
Enter the External URLs for this Security Server.
The External URLs specified are used by Horizon Clients to establish connections to this Security Server for the secure tunnel, PCoIP and Blast protocols respectively. The URL names and IP addresses must not be load balanced.
Note that the hostnames must be resolvable by the Horizon Client and the PCoIP External URL must contain an IP address.
External URL:
https://VIEWSE01.vjason.local:443
PCoIP External URL:
172.16.100.21:4172
Blast External URL:
https://VIEWSE01.vjason.local:8443

Servers
vCenter Servers
Security Servers
Connection Servers
Edit...
More Commands
Security Server
Version
PCoIP Secure Gateway
Connection Server
VIEWSE01
7.0.0-3633490
Installed
VIEWCS02

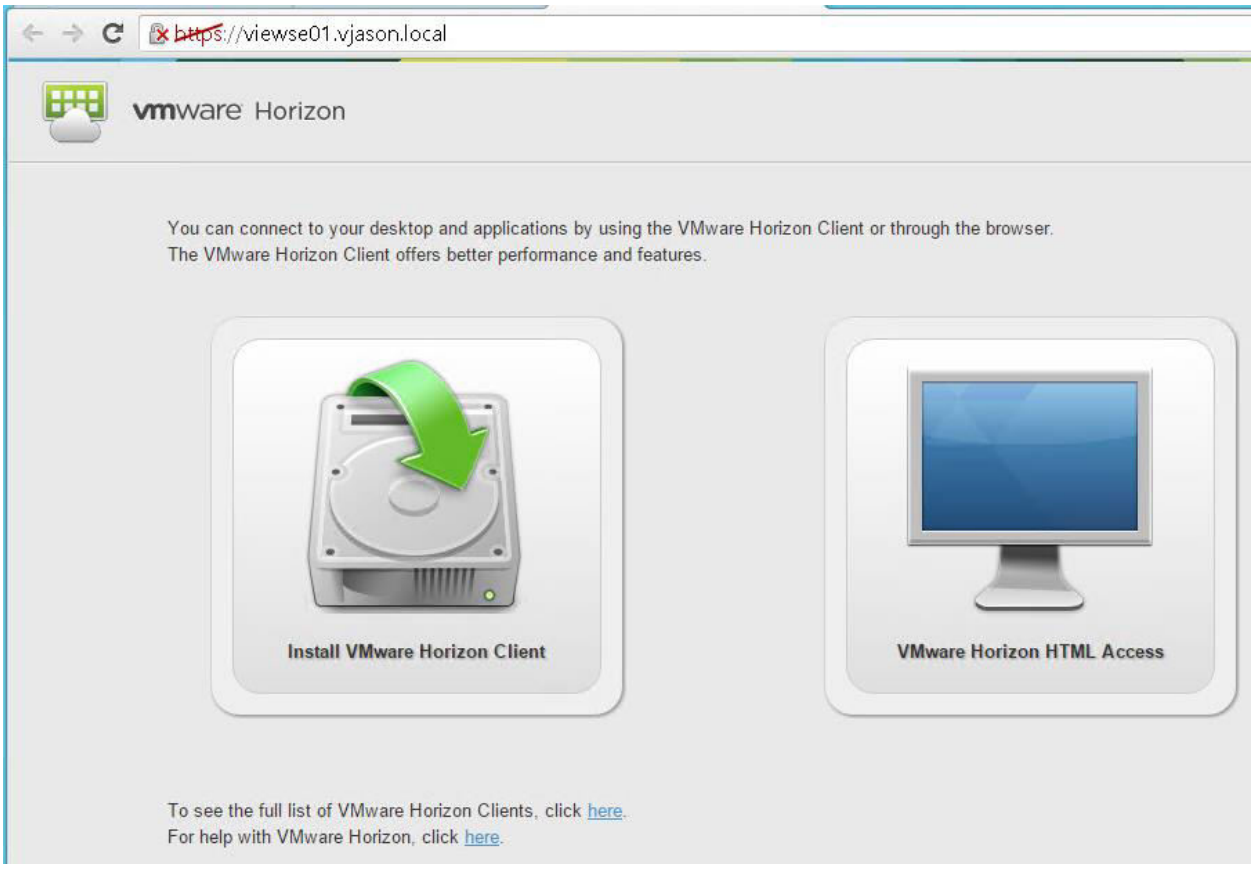

Servers
vCenter Servers
Security Servers
Connection Servers
Enable
Disable
Edit...
Backup Now...
More Commands
Connection Server
Version
1
PCoIP Secu...
State
Settings
VIEWCS01
7.0.0-3633490
Installed
Enabled
Smart card auth
VIEWCS02
7.0.0-3633490
Installed
Enabled
Smart card auth


Edit Connection Server Settings
General
Authentication
Backup
Tags
Tags can be used to restrict which desktop pools can be accessed through this Connection Server.
Tags:
Separate tags with ; or ,
HTTP(S) Secure Tunnel
Use Secure Tunnel connection to machine
External URL:
https://VIEWCS02.vjason.local
Example: https://myserver.com:443
PCoIP Secure Gateway
Use PCoIP Secure Gateway for PCoIP connections to machine
PCoIP External URL:
172.16.100.20:4172
Example: 10.0.0.1:4172
Blast Secure Gateway
Use Blast Secure Gateway for HTML access to machine
Blast External URL:
https://VIEWCS02.vjason.local
Example: https://myserver.com:8443

Edit Security Server - VIEWSE01
Server name:
VIEWSE01
HTTP(S) Secure Tunnel
External URL:
https://VIEWSE01.vjason.local:443
Example: https://myserver.com:443
PCoIP Secure Gateway
PCoIP External URL:
172.16.100.21:4172
Example: 10.0.0.1:4172
Blast Secure Gateway
Blast External URL:
https://VIEWSE01.vjason.local:8443
Example: https://myserver.com:8443

Servers
vCenter Servers
Security Servers
Connection Servers
Edit...
More Commands
Prepare for Upgrade or Reinstallation...
Security Server
Version
PCoIP Secure Gateway
VIEWSE01
7.0.0-3633490
Installed
VIEWSE02
6.2.0-3005368
Installed

Warning
This Security Server is paired with the 'VIEWCS02' Connection Server instance using IPsec. If you continue, the IPsec rules that control communication between the security server and Connection Server instance will be removed. The current IPsec rules must be removed before you can upgrade or reinstall this security server and pair it again with the View Connection Server instance. Continue only if you intend to upgrade or reinstall.
Warning: If you remove the IPsec rules for an active security server, all communication with the security server is lost until you upgrade or reinstall the security server.
Click OK to remove the IPsec rules now. Otherwise, click Cancel.



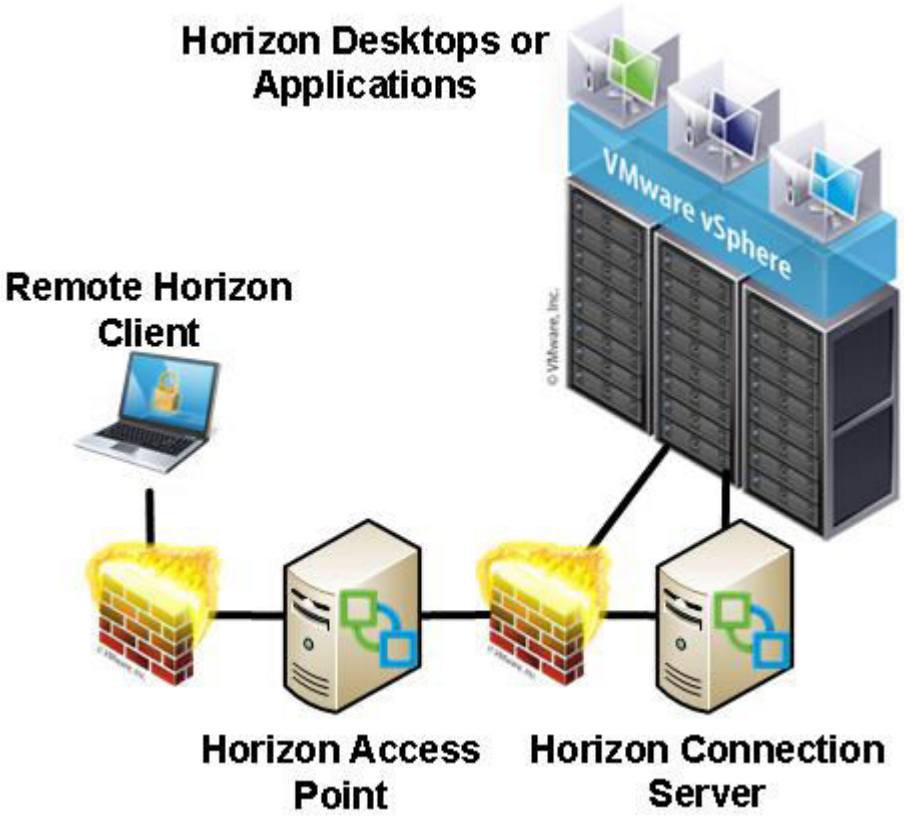
Servers

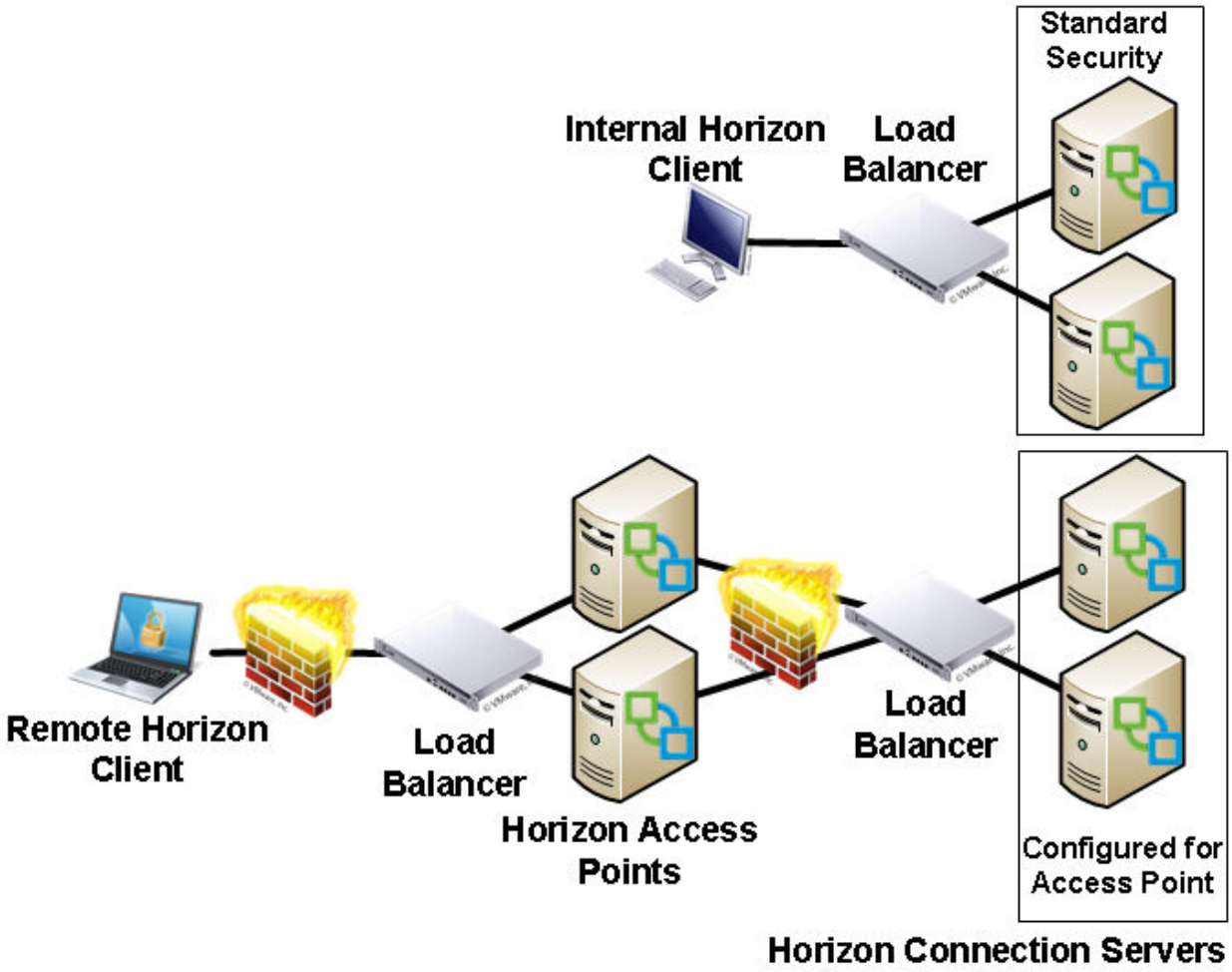
vCenter Servers | Security Servers | Connection Servers

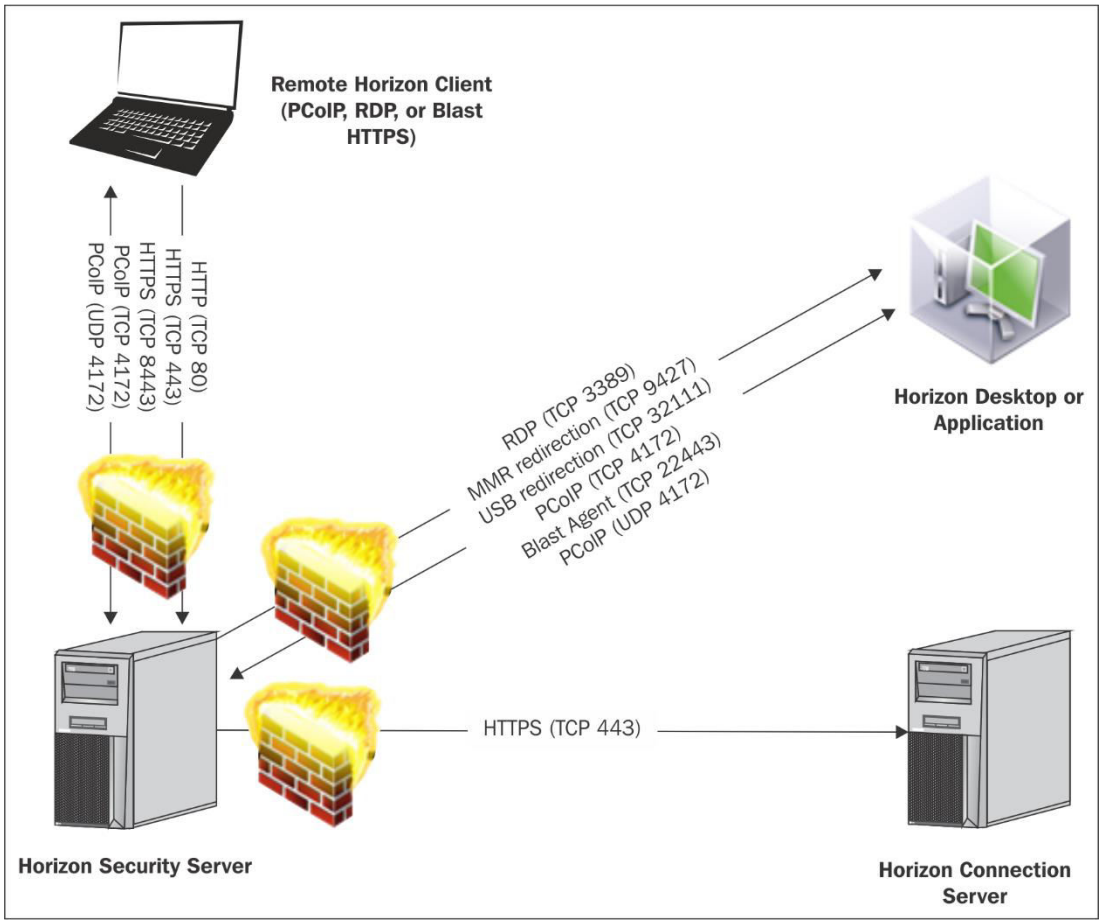
Edit... | More Commands

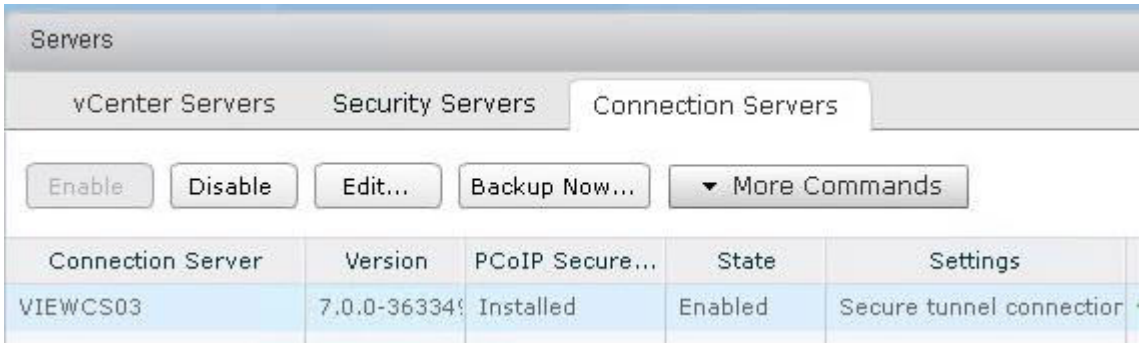
Security Server	Version	PCoIP Secure Gateway	Connection Server
VIEWSE01	7.0.0-3633490	Installed	VIEWCS02
VIEWSE02	6.2.0-3005368	Installed	VIEWCS02

Chapter 5: Implementing VMware Horizon Access Point




Standard Security
Internal Horizon Client
Load Balancer
Remote Horizon Client
Load Balancer
Horizon Access Points
Load Balancer
Configured for Access Point
Horizon Connection Servers


Remote Horizon Client
(PCoIP, RDP, or Blast
HTTPS)
PCoIP (UDP 4172)
PCoIP (TCP 4172)
HTTPS (TCP 8443)
HTTPS (TCP 443)
HTTP (TCP 80)
RDP (TCP 3389)
MMR redirection (TCP 9427)
USB redirection (TCP 32111)
PCoIP (TCP 4172)
Blast Agent (TCP 22443)
PCoIP (UDP 4172)
Horizon Desktop or
Application
HTTPS (TCP 443)
Horizon Security Server
Horizon Connection
Server


Servers
vCenter Servers
Security Servers
Connection Servers
Enable
Disable
Edit...
Backup Now...
More Commands
Connection Server
Version
PCoIP Secure...
State
Settings
VIEWCS03
7.0.0-36334
Installed
Enabled
Secure tunnel connectior

General | Authentication | Backup

Tags

Tags can be used to restrict which desktop pools can be accessed through this Connection Server

Tags: Separate tags with ; or ,

HTTP(S) Secure Tunnel

☐ Use Secure Tunnel connection to machine

External URL: https://VIEWCS03.vjason.local Example: https://myserver.com:443

PCoIP Secure Gateway

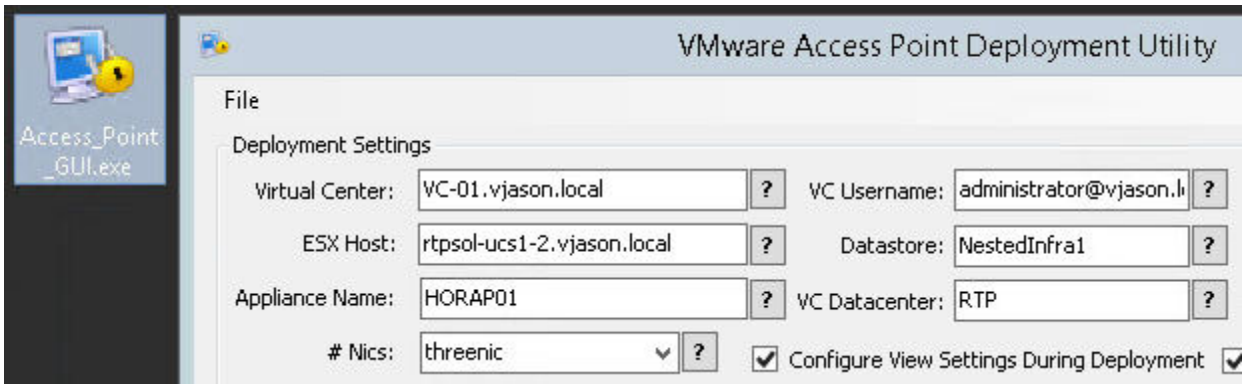
☐ Use PCoIP Secure Gateway for PCoIP connections to machine

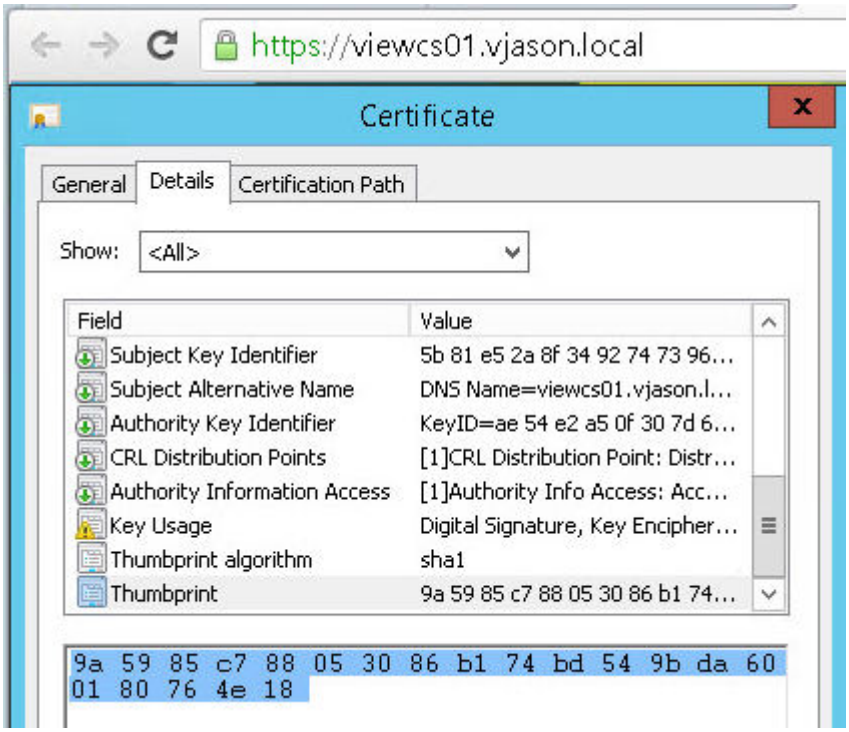
PCoIP External URL: 172.16.100.26:4172 Example: 10.0.0.1:4172

Blast Secure Gateway

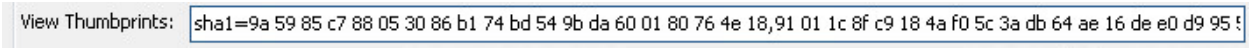
☐ Use Blast Secure Gateway for Blast connections to machine

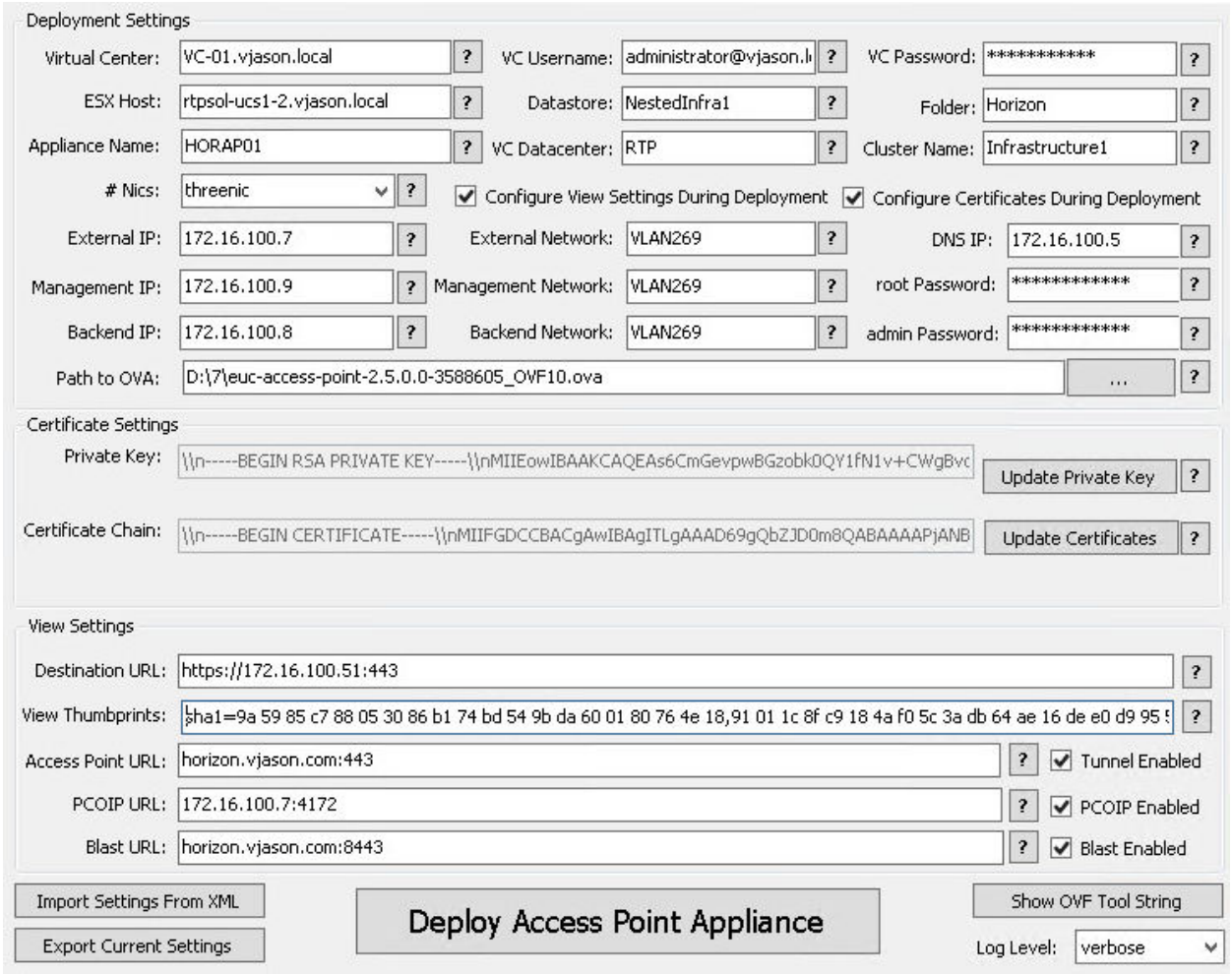
Blast External URL: https://VIEWCS03.vjason.local Example: https://myserver.com:8443

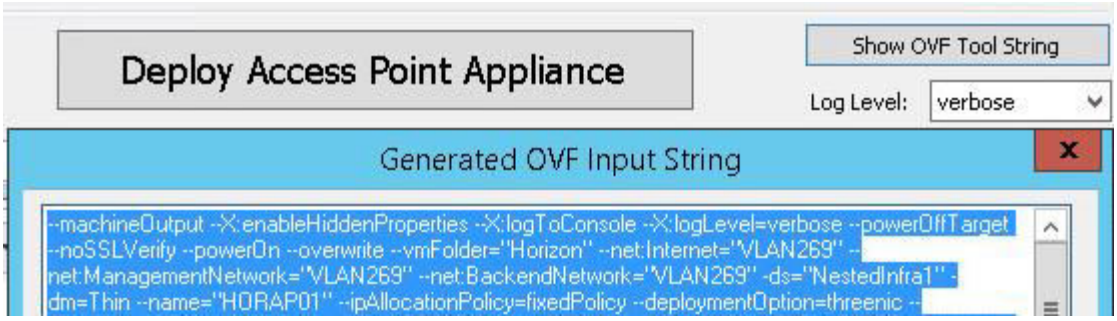


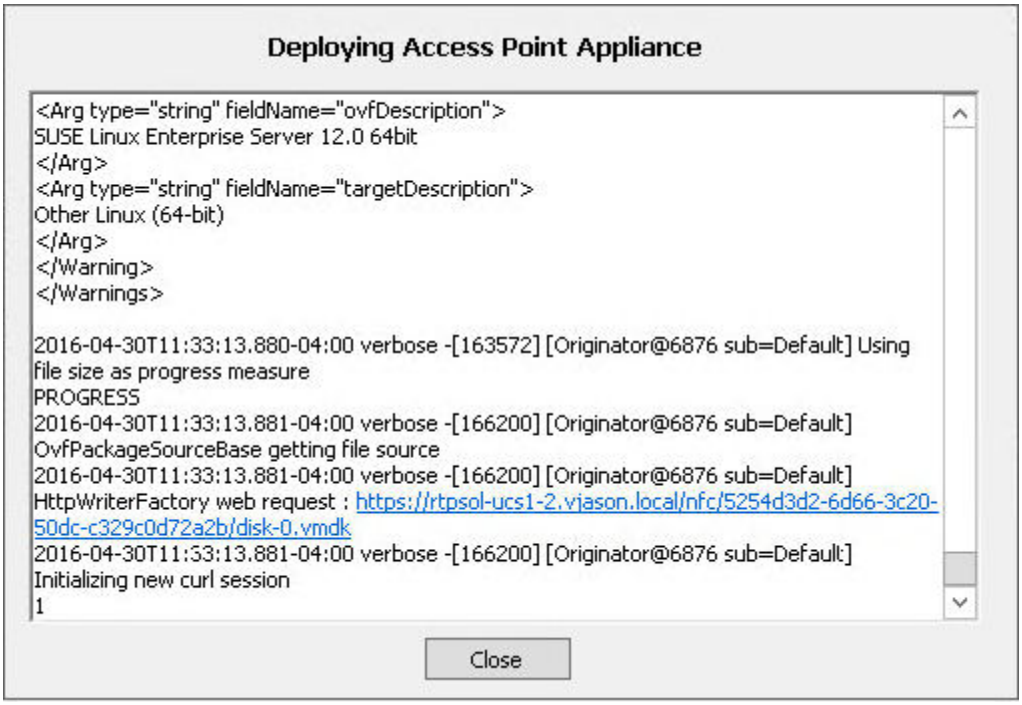

https://viewcs01.vjason.local
Certificate
General
Details
Certification Path
Show:
<All>
Field
Value
Subject Key Identifier
5b 81 e5 2a 8f 34 92 74 73 96...
Subject Alternative Name
DNS Name=viewcs01.vjason.l...
Authority Key Identifier
KeyID=ae 54 e2 a5 0f 30 7d 6...
CRL Distribution Points
[1]CRL Distribution Point: Distr...
Authority Information Access
[1]Authority Info Access: Acc...
Key Usage
Digital Signature, Key Encipher...
Thumbprint algorithm
sha1
Thumbprint
9a 59 85 c7 88 05 30 86 b1 74...
9a 59 85 c7 88 05 30 86 b1 74 bd 54 9b da 60
01 80 76 4e 18

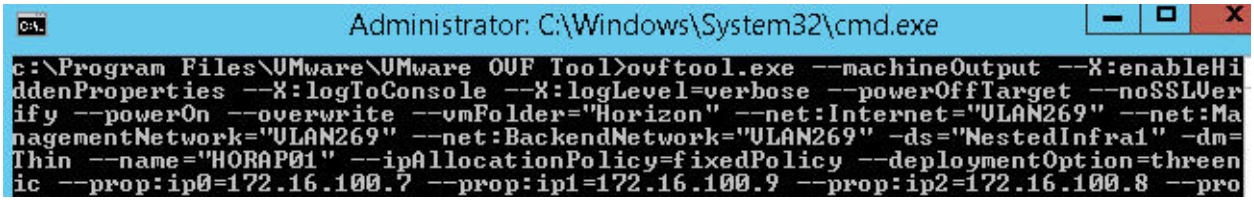
Certificate Settings
Private Key:
\\n-----BEGIN RSA PRIVATE KEY-----\\nMIIEowIBAAKCAQEAs6CmGevpwBGzobk0QY1fN1v+CWgBvc
Update Private Key
Certificate Chain:
\\n-----BEGIN CERTIFICATE-----\\nMIIFGDCCBACgAwIBAgITLgAAAD69gQbZJD0m8QABAAAAPjANB
Update Certificates


View Thumbprints:
sha1=9a 59 85 c7 88 05 30 86 b1 74 bd 54 9b da 60 01 80 76 4e 18,91 01 1c 8f c9 18 4a f0 5c 3a db 64 ae 16 de e0 d9 95

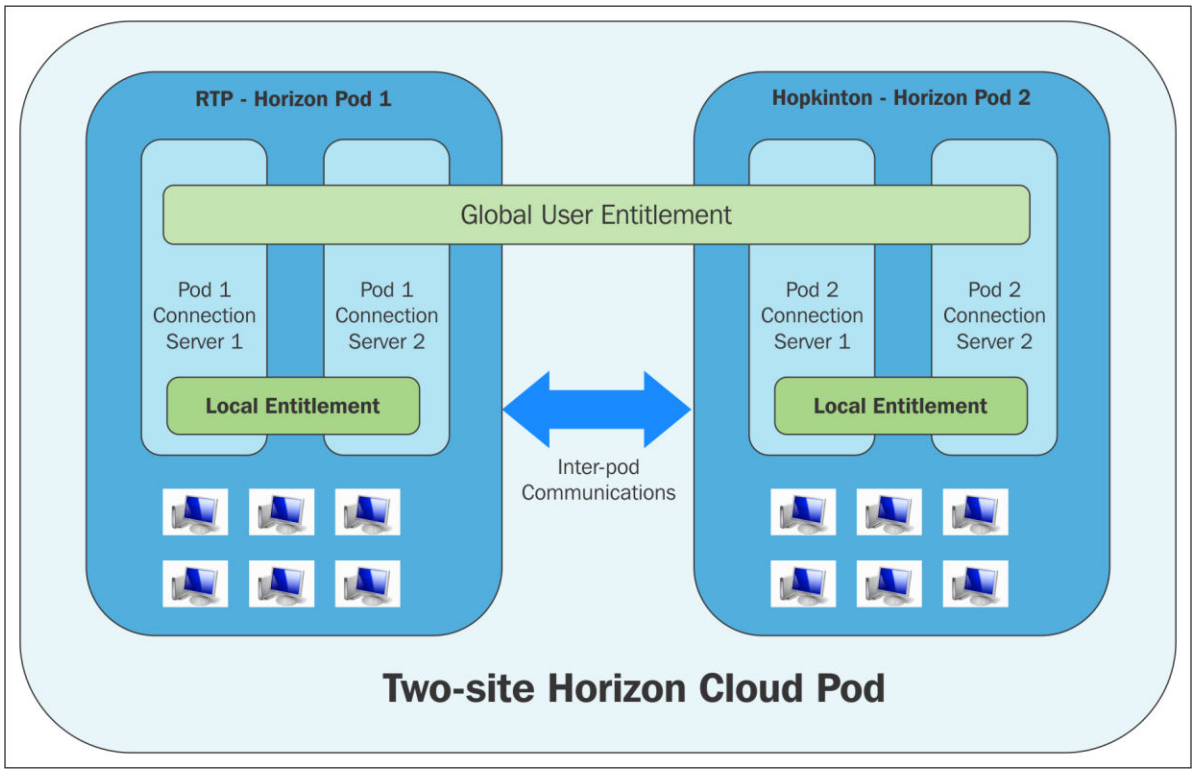

Deployment Settings
Virtual Center: VC-01.vjason.local
VC Username: administrator@vjason.l
VC Password: **********
ESX Host: rtpsol-ucs1-2.vjason.local
Datastore: NestedInfra1
Folder: Horizon
Appliance Name: HORAP01
VC Datacenter: RTP
Cluster Name: Infrastructure1
Nics: threenic
Configure View Settings During Deployment
Configure Certificates During Deployment
External IP: 172.16.100.7
External Network: VLAN269
DNS IP: 172.16.100.5
Management IP: 172.16.100.9
Management Network: VLAN269
root Password: **********
Backend IP: 172.16.100.8
Backend Network: VLAN269
admin Password: **********
Path to OVA: D:\7\euc-access-point-2.5.0.0-3588605_OVF10.ova
...
Certificate Settings
Private Key: \\n-----BEGIN RSA PRIVATE KEY-----\\nMIIEowIBAAKCAQEAs6CmGevpwBGzobk0QY1fN1v+CWgBvc
Update Private Key
Certificate Chain: \\n-----BEGIN CERTIFICATE-----\\nMIIFGDCCBACgAwIBAgITLgAAAD69gQbZJD0m8QABAAAAPjANB
Update Certificates
View Settings
Destination URL: https://172.16.100.51:443
View Thumbprints: sha1=9a 59 85 c7 88 05 30 86 b1 74 bd 54 9b da 60 01 80 76 4e 18,91 01 1c 8f c9 18 4a f0 5c 3a db 64 ae 16 de e0 d9 95
Access Point URL: horizon.vjason.com:443
Tunnel Enabled
PCOIP URL: 172.16.100.7:4172
PCOIP Enabled
Blast URL: horizon.vjason.com:8443
Blast Enabled
Import Settings From XML
Export Current Settings
Deploy Access Point Appliance
Show OVF Tool String
Log Level: verbose

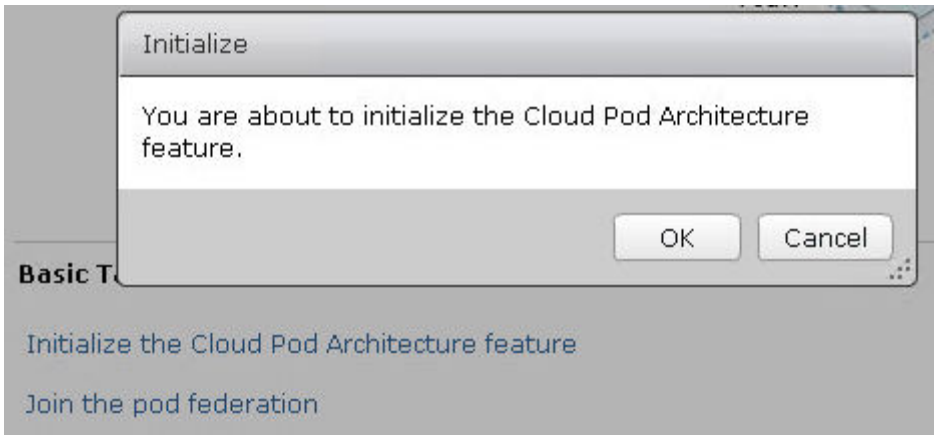

Deploy Access Point Appliance
Show OVF Tool String
Log Level: verbose
Generated OVF Input String
--machineOutput --X:enableHiddenProperties --X:logToConsole --X:logLevel=verbose --powerOffTarget
--noSSLVerify --powerOn --overwrite --vmFolder="Horizon" --net:Internet="VLAN269" --
net:ManagementNetwork="VLAN269" --net:BackendNetwork="VLAN269" -ds="NestedInfra1" -
dm=Thin --name="HORAP01" --ipAllocationPolicy=fixedPolicy --deploymentOption=threenic --

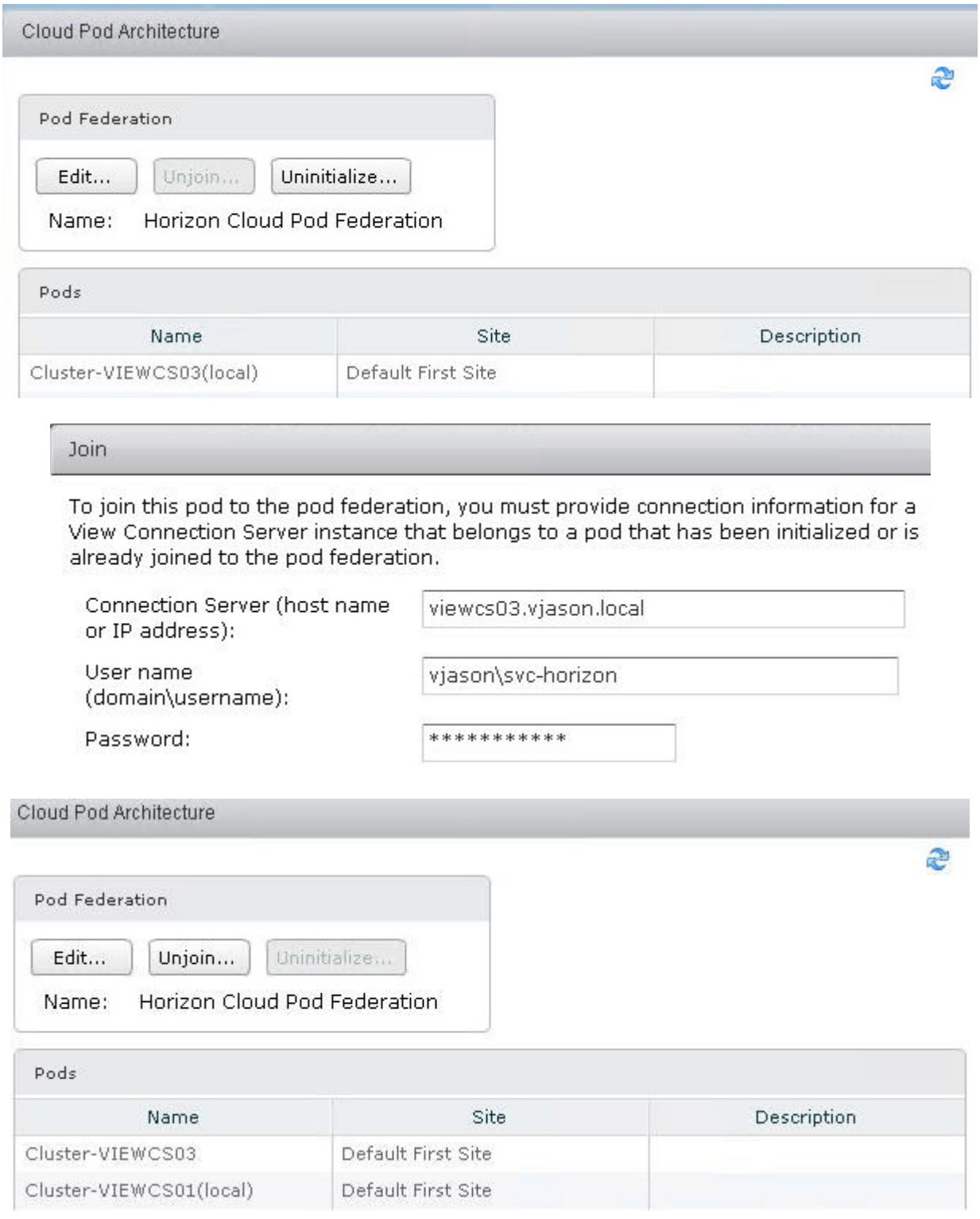

Deploying Access Point Appliance
<Arg type="string" fieldName="ovfDescription">
SUSE Linux Enterprise Server 12.0 64bit
</Arg>
<Arg type="string" fieldName="targetDescription">
Other Linux (64-bit)
</Arg>
</Warning>
</Warnings>
2016-04-30T11:33:13.880-04:00 verbose -[163572] [Originator@6876 sub=Default] Using file size as progress measure
PROGRESS
2016-04-30T11:33:13.881-04:00 verbose -[166200] [Originator@6876 sub=Default] OvfPackageSourceBase getting file source
2016-04-30T11:33:13.881-04:00 verbose -[166200] [Originator@6876 sub=Default] HttpWriterFactory web request : https://rtpsol-ucs1-2.vjason.local/nfc/5254d3d2-6d66-3c20-50dc-c329c0d72a2b/disk-0.vmdk
2016-04-30T11:33:13.881-04:00 verbose -[166200] [Originator@6876 sub=Default] Initializing new curl session
1
Close

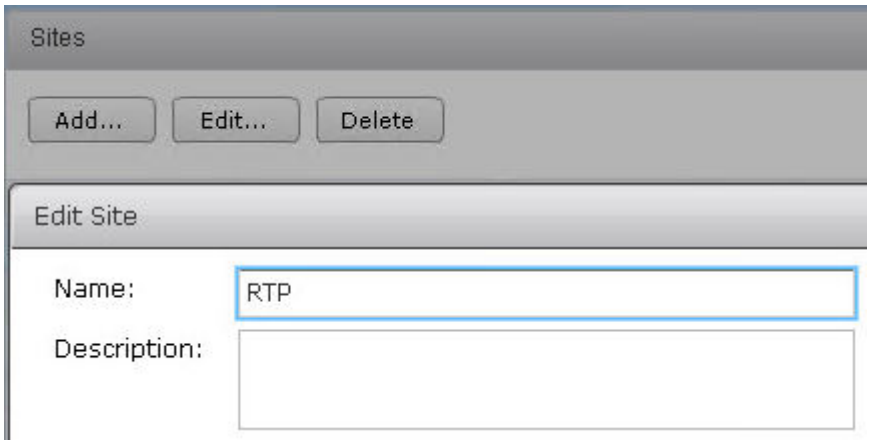

Administrator: C:\Windows\System32\cmd.exe
c:\Program Files\VMware\VMware OVF Tool>ovftool.exe --machineOutput --X:enableHiddenProperties --X:logToConsole --X:logLevel=verbose --powerOffTarget --noSSLVerify --powerOn --overwrite --vmFolder="Horizon" --net:Internet="VLAN269" --net:ManagementNetwork="VLAN269" --net:BackendNetwork="VLAN269" -ds="NestedInfra1" -dm=Thin --name="HORAP01" --ipAllocationPolicy=fixedPolicy --deploymentOption=threenic --prop:ip0=172.16.100.7 --prop:ip1=172.16.100.9 --prop:ip2=172.16.100.8 --pro

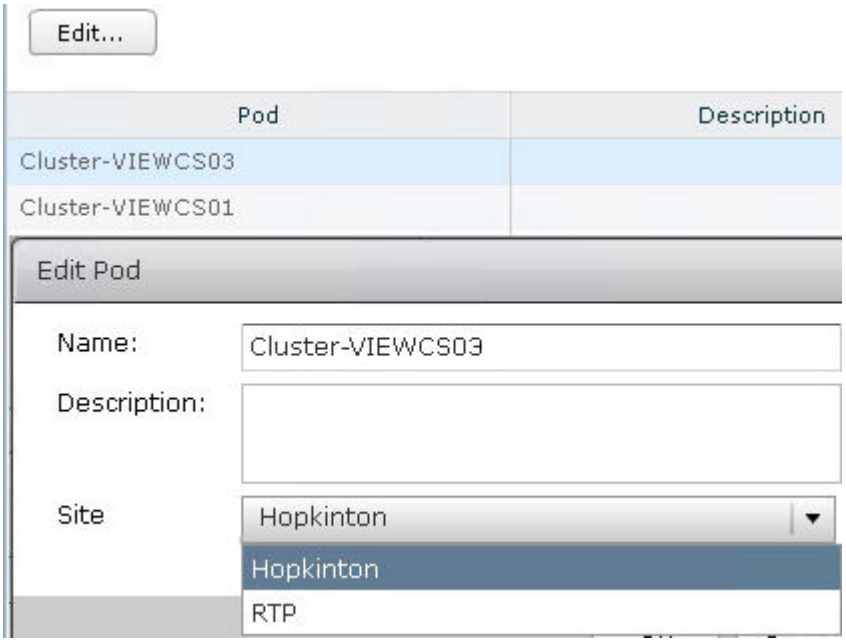
Chapter 6: Implementing a Horizon Cloud Pod

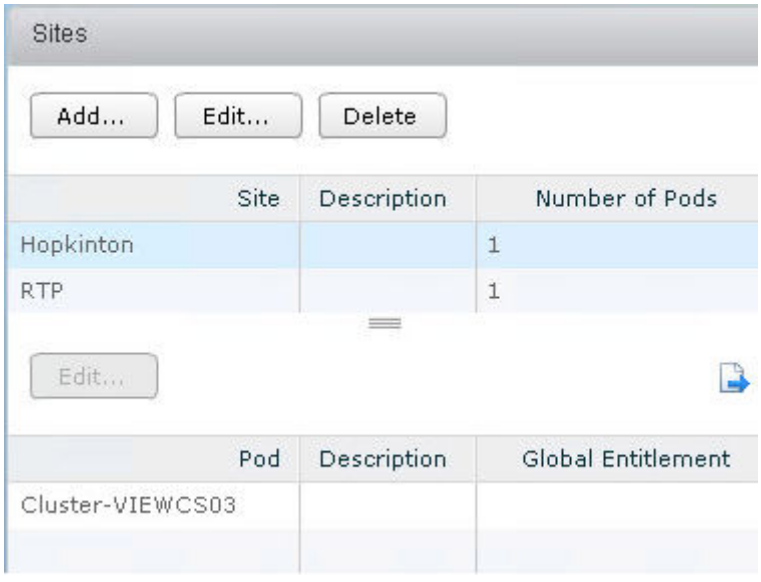


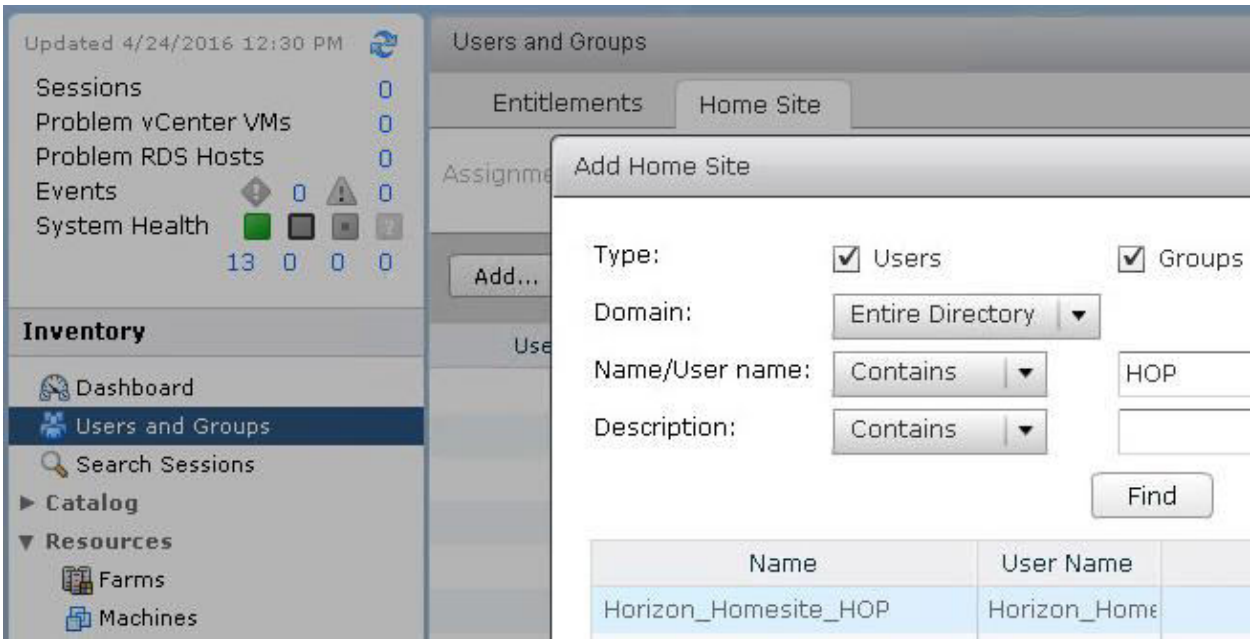


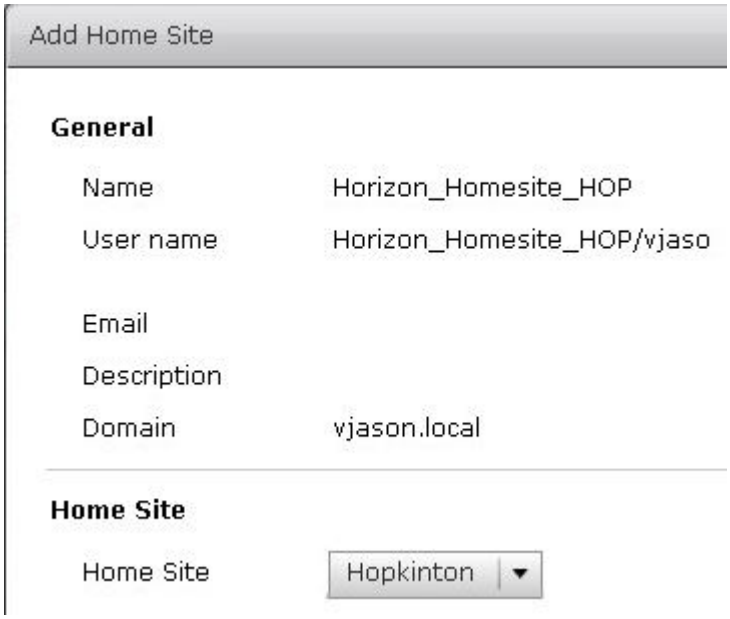

Cloud Pod Architecture
Pod Federation
Edit...
Unjoin...
Uninitialize...
Name: Horizon Cloud Pod Federation
Pods
Name
Site
Description
Cluster-VIEWCS03(local)
Default First Site
Join
To join this pod to the pod federation, you must provide connection information for a View Connection Server instance that belongs to a pod that has been initialized or is already joined to the pod federation.
Connection Server (host name or IP address):
viewcs03.vjason.local
User name (domain\username):
vjason\svc-horizon
Password:
****
Cloud Pod Architecture
Pod Federation
Edit...
Unjoin...
Uninitialize...
Name: Horizon Cloud Pod Federation
Pods
Name
Site
Description
Cluster-VIEWCS03
Default First Site
Cluster-VIEWCS01(local)
Default First Site

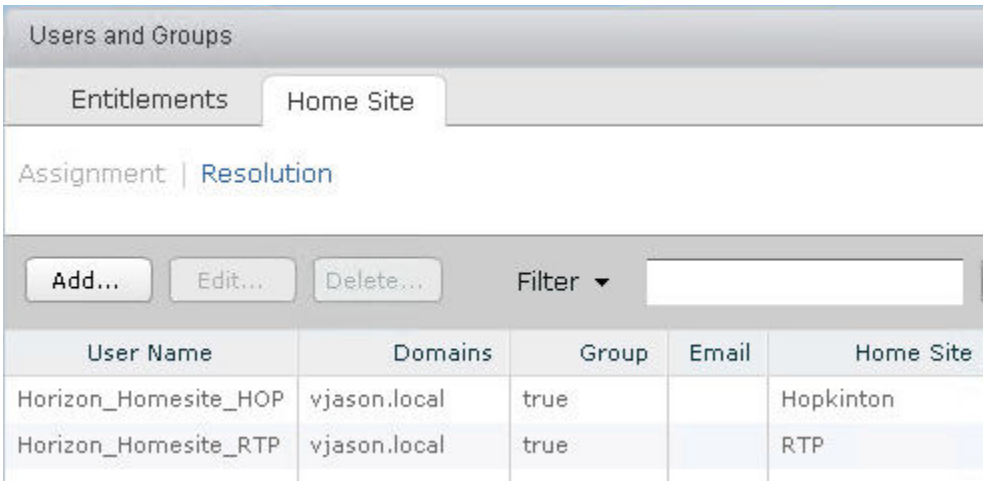

Sites
Add...
Edit...
Delete
Edit Site
Name:
RTP
Description:

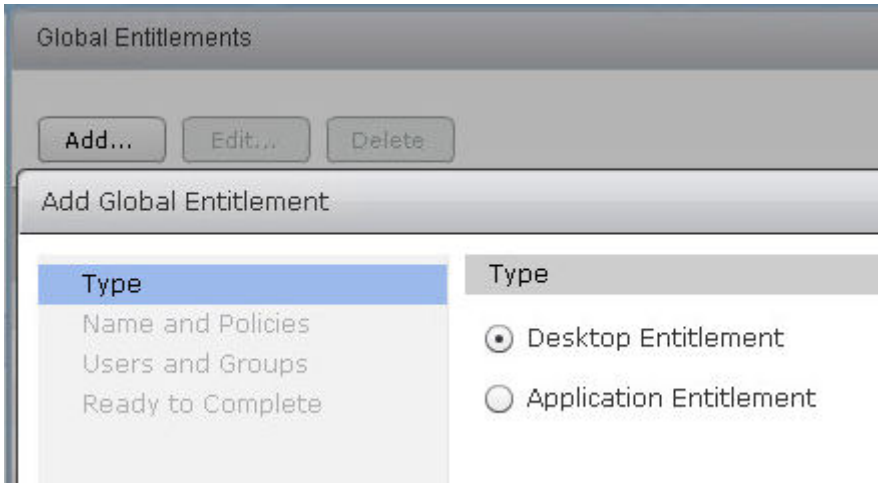

Edit...
Pod
Description
Cluster-VIEWCS03
Cluster-VIEWCS01
Edit Pod
Name:
Cluster-VIEWCS03
Description:
Site
Hopkinton
Hopkinton
RTP

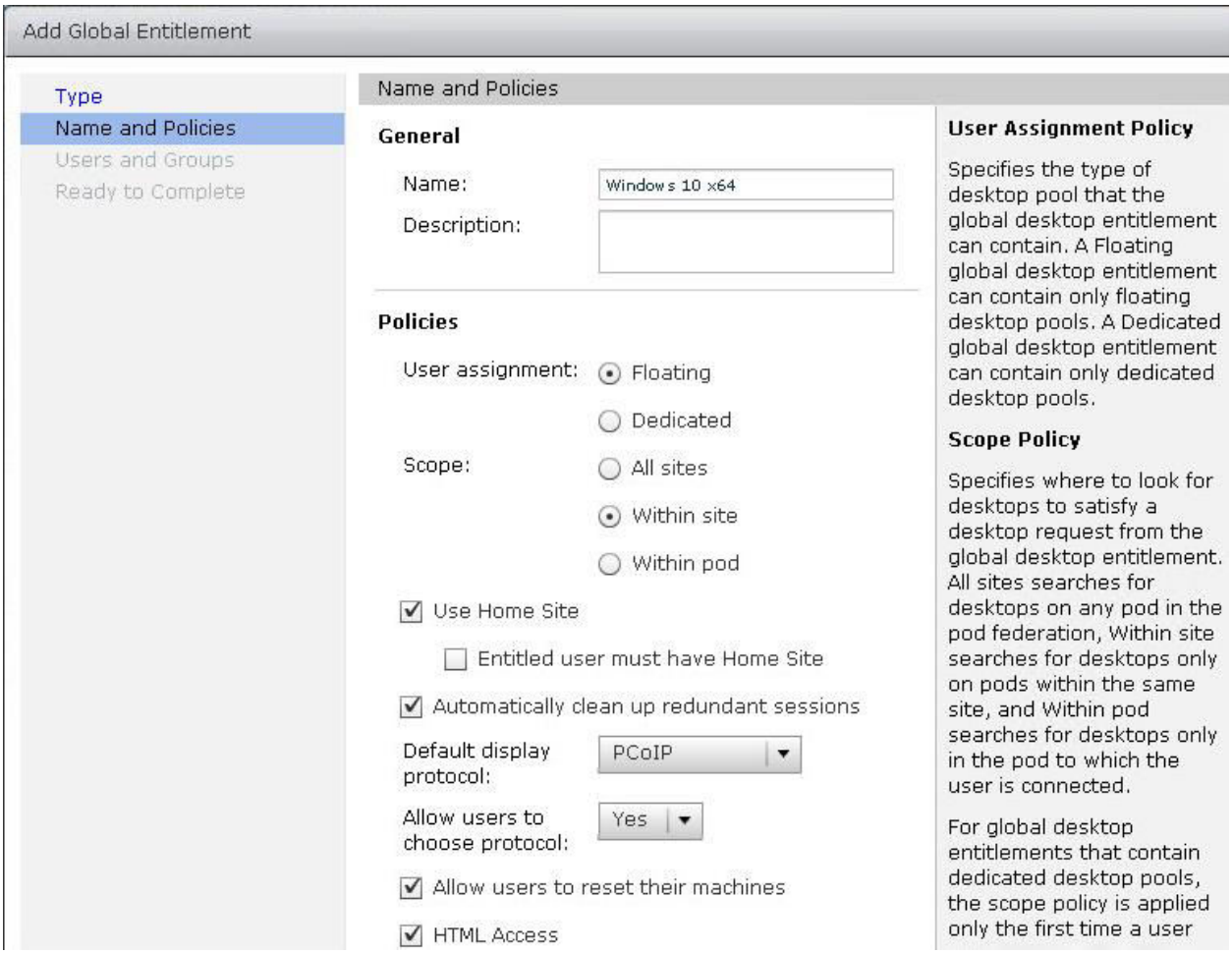

Sites
Add...
Edit...
Delete
Site
Description
Number of Pods
Hopkinton
1
RTP
1
Edit...
Pod
Description
Global Entitlement
Cluster-VIEWCS03


Updated 4/24/2016 12:30 PM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 0
System Health
13 0 0 0
Inventory
Dashboard
Users and Groups
Search Sessions
Catalog
Resources
Farms
Machines
Users and Groups
Entitlements
Home Site
Add...
Add Home Site
Type:
Users
Groups
Domain:
Entire Directory
Name/User name:
Contains
HOP
Description:
Contains
Find
Name
User Name
Horizon_Homesite_HOP
Horizon_Home

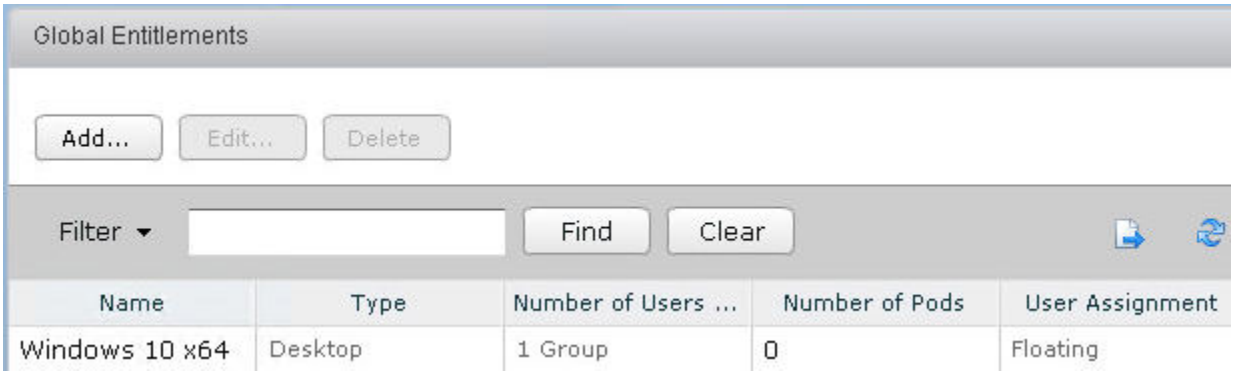

Add Home Site
General
Name
Horizon_Homesite_HOP
User name
Horizon_Homesite_HOP/vjaso
Email
Description
Domain
vjason.local
Home Site
Home Site
Hopkinton


Users and Groups
Entitlements
Home Site
Assignment | Resolution
Add...
Edit...
Delete...
Filter
User Name
Domains
Group
Email
Home Site
Horizon_Homesite_HOP
vjason.local
true
Hopkinton
Horizon_Homesite_RTP
vjason.local
true
RTP

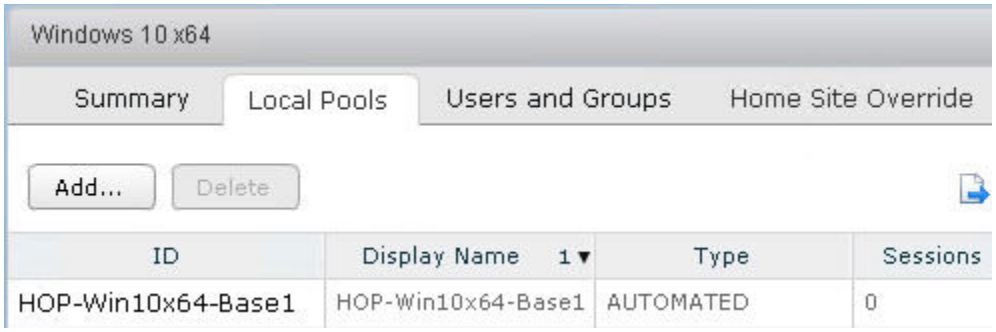

Global Entitlements
Add...
Edit...
Delete
Add Global Entitlement
Type
Name and Policies
Users and Groups
Ready to Complete
Type
Desktop Entitlement
Application Entitlement


Add Global Entitlement
Type
Name and Policies
Users and Groups
Ready to Complete
Name and Policies
General
Name:
Windows 10 x64
Description:
Policies
User assignment:
Floating
Dedicated
Scope:
All sites
Within site
Within pod
Use Home Site
Entitled user must have Home Site
Automatically clean up redundant sessions
Default display protocol:
PCoIP
Allow users to choose protocol:
Yes
Allow users to reset their machines
HTML Access
User Assignment Policy
Specifies the type of desktop pool that the global desktop entitlement can contain. A Floating global desktop entitlement can contain only floating desktop pools. A Dedicated global desktop entitlement can contain only dedicated desktop pools.
Scope Policy
Specifies where to look for desktops to satisfy a desktop request from the global desktop entitlement. All sites searches for desktops on any pod in the pod federation, Within site searches for desktops only on pods within the same site, and Within pod searches for desktops only in the pod to which the user is connected.
For global desktop entitlements that contain dedicated desktop pools, the scope policy is applied only the first time a user

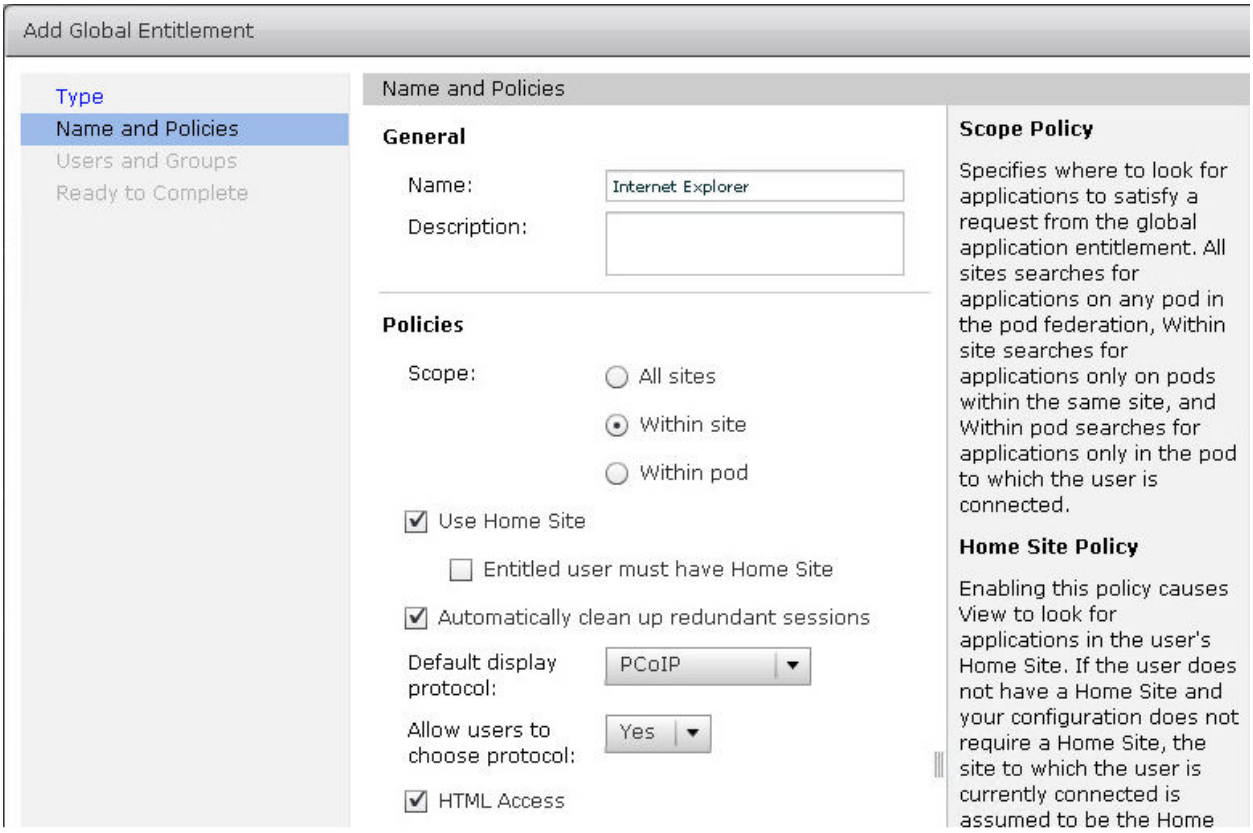
Add Global Entitlement
Type
Name and Policies
Users and Groups
Ready to Complete
Add users or groups to the global entitlement
Name
Domains
vjason.local\Horizon_GlobalDTPool_Win10NP
vjason.local


Global Entitlements
Add...
Edit...
Delete
Filter
Find
Clear
Name
Type
Number of Users ...
Number of Pods
User Assignment
Windows 10 x64
Desktop
1 Group
0
Floating

Windows 10 x64
Summary
Local Pools
Users and Groups
Home Site Override
Add...
Delete
Assign Pools - Windows 10 x64
Select Pools to Add
Pool ID
Pool Name
Type
HOP-Win10x64-Base1
HOP-Win10x64-Base1
AUTOMATED

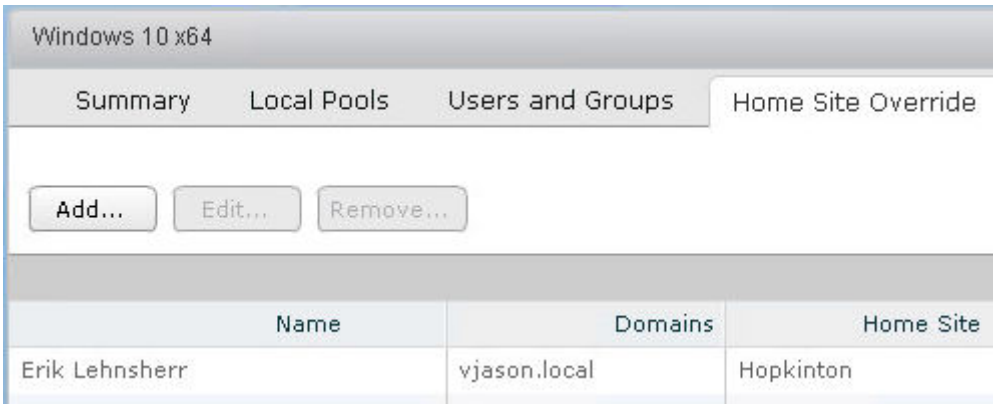

Windows 10 x64
Summary
Local Pools
Users and Groups
Home Site Override
Add...
Delete
ID
Display Name
Type
Sessions
HOP-Win10x64-Base1
HOP-Win10x64-Base1
AUTOMATED
0

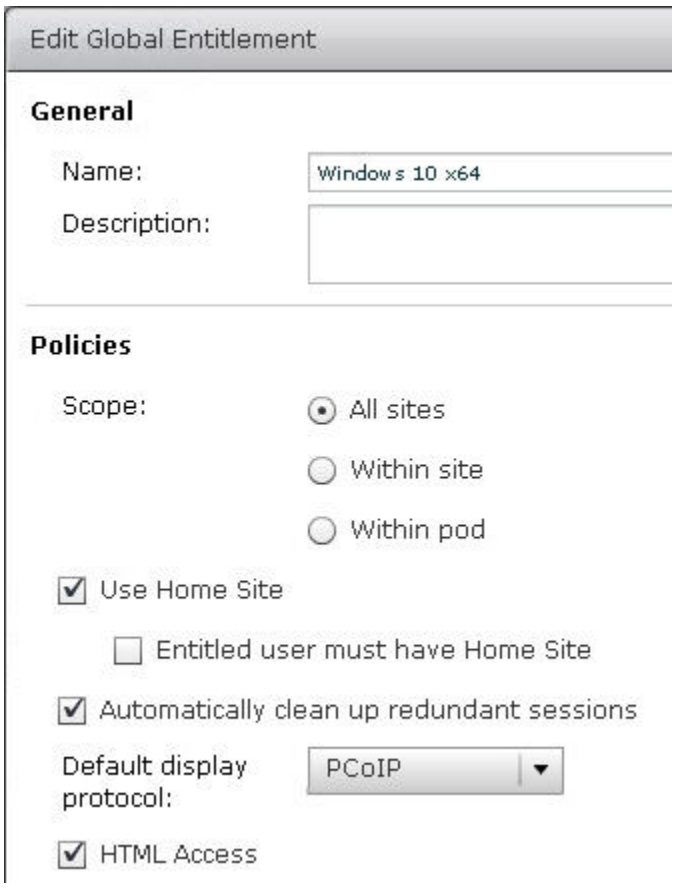
VMware Horizon Client
viewcs03.vjason.local
Windows 10 x64
Internet Explorer

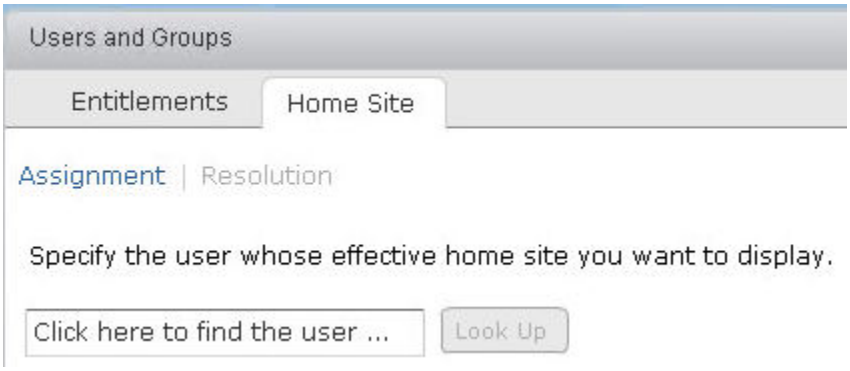

Add Global Entitlement
Type
Name and Policies
Users and Groups
Ready to Complete
Name and Policies
General
Name:
Internet Explorer
Description:
Policies
Scope:
All sites
Within site
Within pod
Use Home Site
Entitled user must have Home Site
Automatically clean up redundant sessions
Default display protocol:
PCoIP
Allow users to choose protocol:
Yes
HTML Access
Scope Policy
Specifies where to look for applications to satisfy a request from the global application entitlement. All sites searches for applications on any pod in the pod federation, Within site searches for applications only on pods within the same site, and Within pod searches for applications only in the pod to which the user is connected.
Home Site Policy
Enabling this policy causes View to look for applications in the user's Home Site. If the user does not have a Home Site and your configuration does not require a Home Site, the site to which the user is currently connected is assumed to be the Home

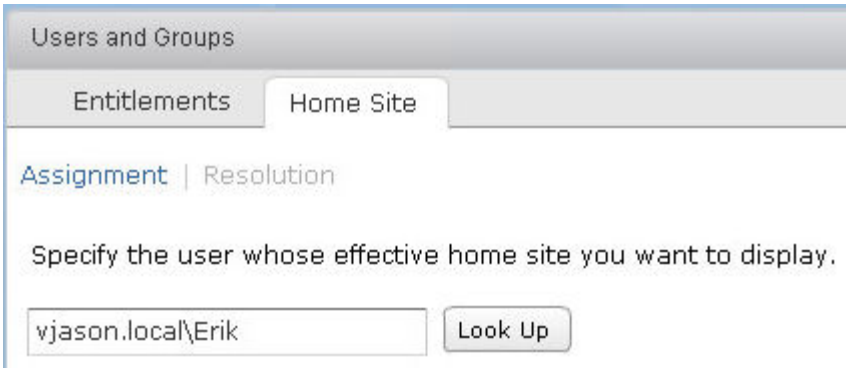
Internet Explorer
Summary
Local Pools
Users and Groups
Home Site Override
Add...
Delete
Assign Pools - Internet Explorer
Select Pools to Add
Pool ID
Pool Name
Type
iexplore
Internet Explorer

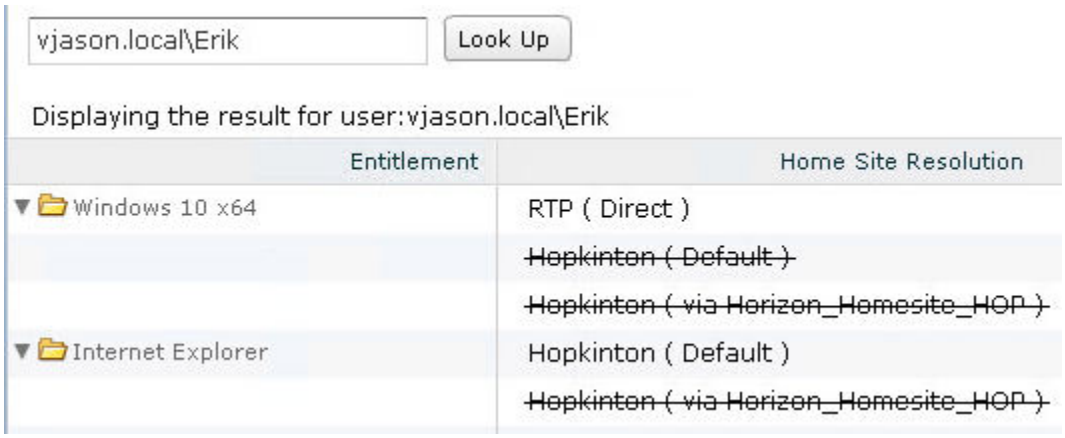
Windows 10 x64
Summary
Local Pools
Users and Groups
Home Site Override
General
Edit...
Name:
Windows 10 x64
Description:
Number of Pods:
2

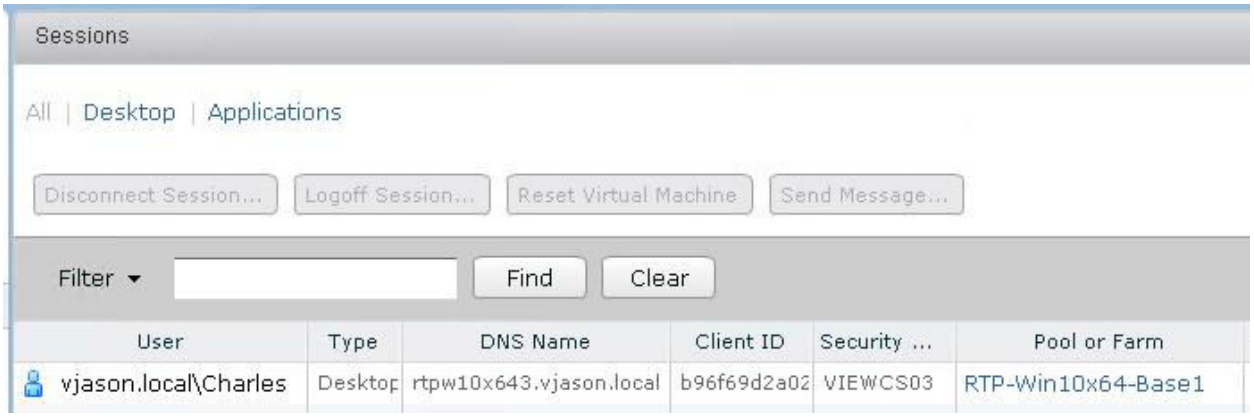

Windows 10 x64
Summary
Local Pools
Users and Groups
Home Site Override
Add...
Edit...
Remove...
Name
Domains
Home Site
Erik Lehnsherr
vjason.local
Hopkinton

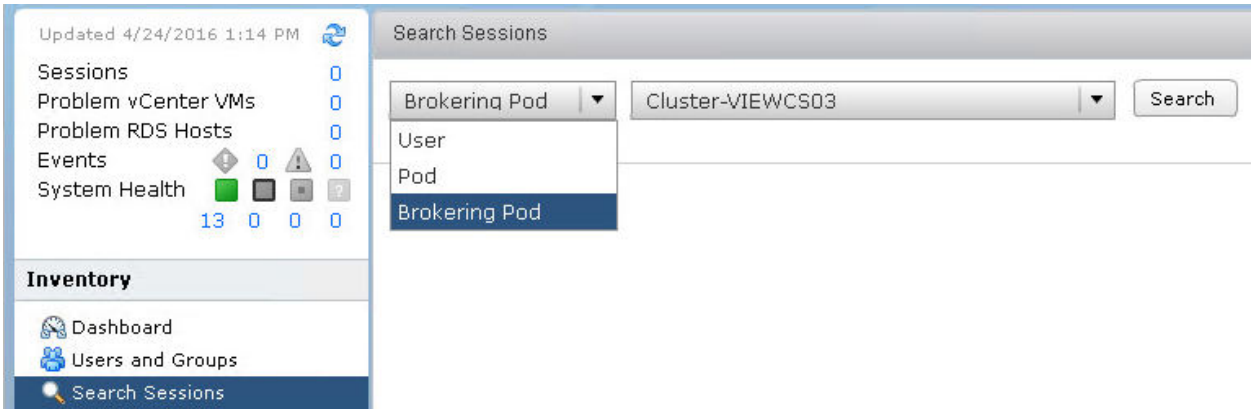

Edit Global Entitlement
General
Name:
Windows 10 x64
Description:
Policies
Scope:
All sites
Within site
Within pod
Use Home Site
Entitled user must have Home Site
Automatically clean up redundant sessions
Default display protocol:
PCoIP
HTML Access

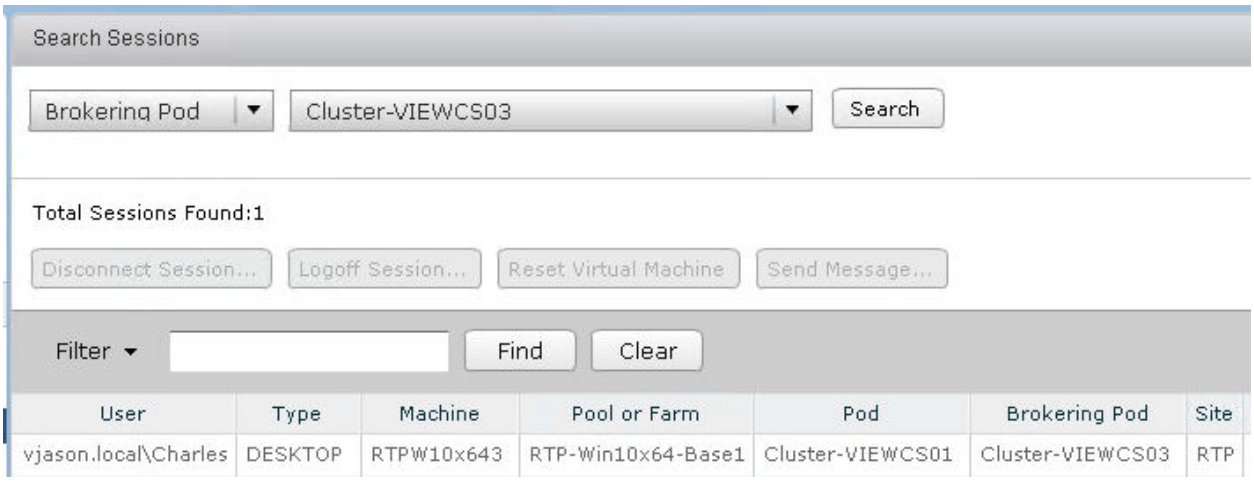

Users and Groups
Entitlements
Home Site
Assignment | Resolution
Specify the user whose effective home site you want to display.
Click here to find the user ...
Look Up

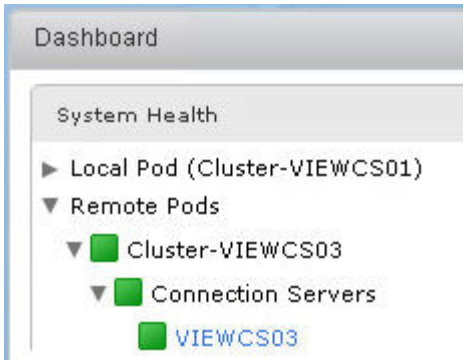

Users and Groups
Entitlements
Home Site
Assignment | Resolution
Specify the user whose effective home site you want to display.
vjason.local\Erik
Look Up


vjason.local\Erik
Look Up
Displaying the result for user:vjason.local\Erik
Entitlement
Home Site Resolution
Windows 10 x64
RTP (Direct)
Hopkinton (Default)
Hopkinton (via Horizon_Homesite_HOP)
Internet Explorer
Hopkinton (Default)
Hopkinton (via Horizon_Homesite_HOP)

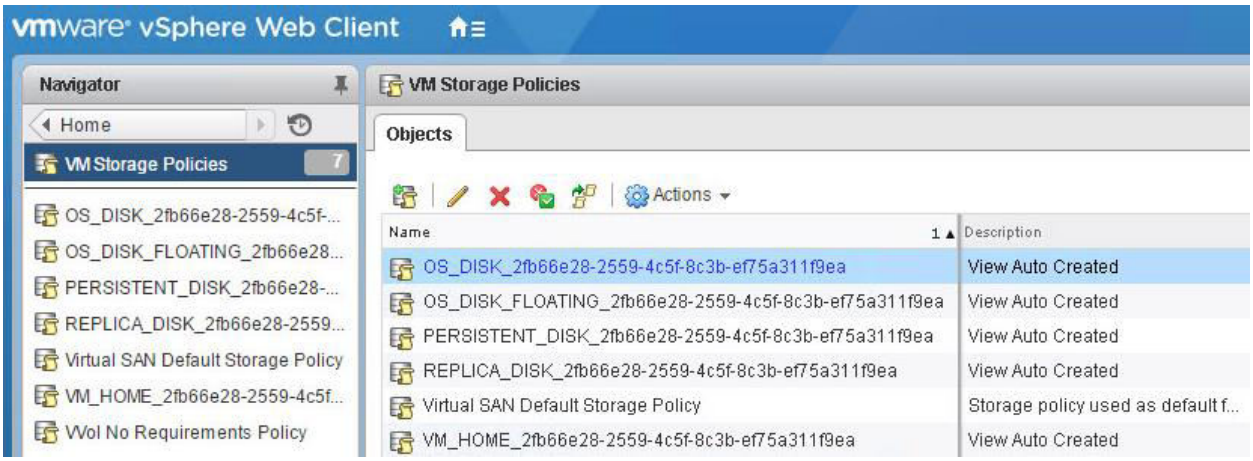

Sessions
All | Desktop | Applications
Disconnect Session...
Logoff Session...
Reset Virtual Machine
Send Message...
Filter
Find
Clear
User
Type
DNS Name
Client ID
Security ...
Pool or Farm
vjason.local\Charles
Desktop
rtpw10x643.vjason.local
b96f69d2a02
VIEWCS03
RTP-Win10x64-Base1

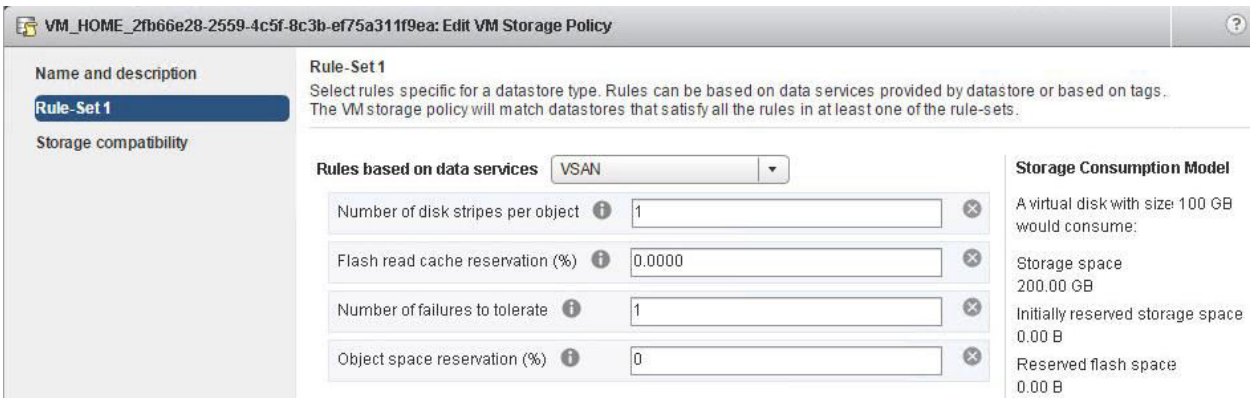

Updated 4/24/2016 1:14 PM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 0
System Health
13 0 0 0
Inventory
Dashboard
Users and Groups
Search Sessions
Search Sessions
Brokering Pod
Cluster-VIEWCS03
Search
User
Pod
Brokering Pod

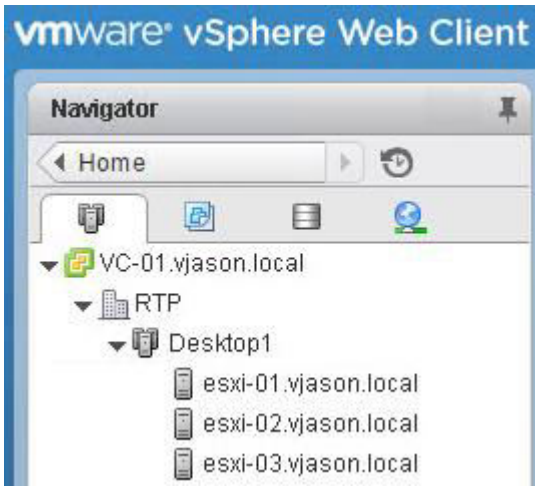

Search Sessions
Brokering Pod
Cluster-VIEWCS03
Search
Total Sessions Found:1
Disconnect Session...
Logoff Session...
Reset Virtual Machine
Send Message...
Filter
Find
Clear
User
Type
Machine
Pool or Farm
Pod
Brokering Pod
Site
vjason.local\Charles
DESKTOP
RTPW10x643
RTP-Win10x64-Base1
Cluster-VIEWCS01
Cluster-VIEWCS03
RTP

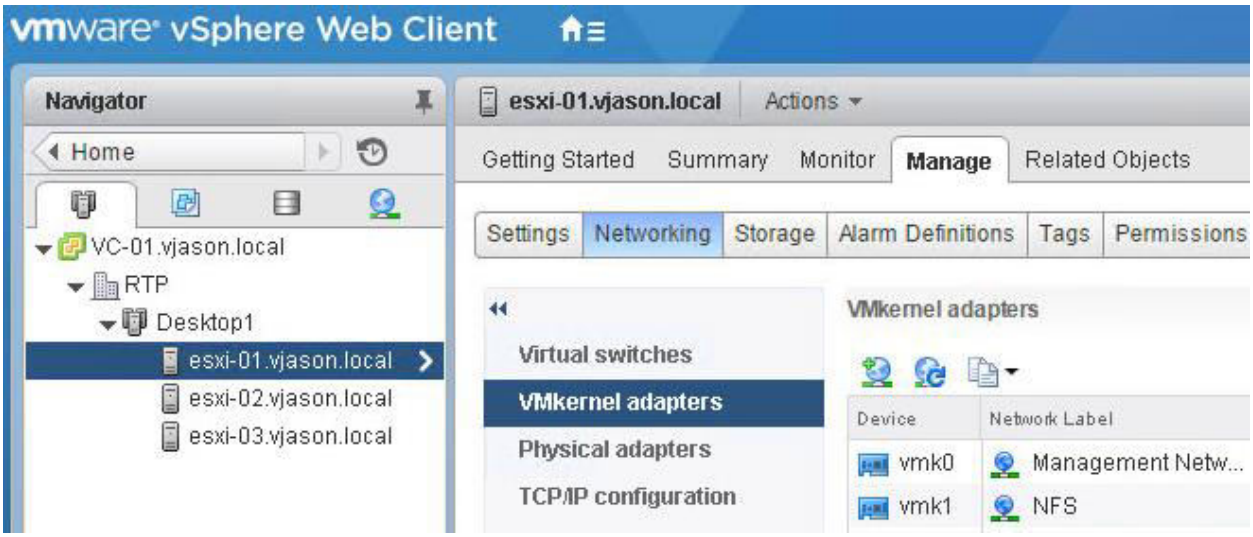

Dashboard
System Health
Local Pod (Cluster-VIEWCS01)
Remote Pods
Cluster-VIEWCS03
Connection Servers
VIEWCS03

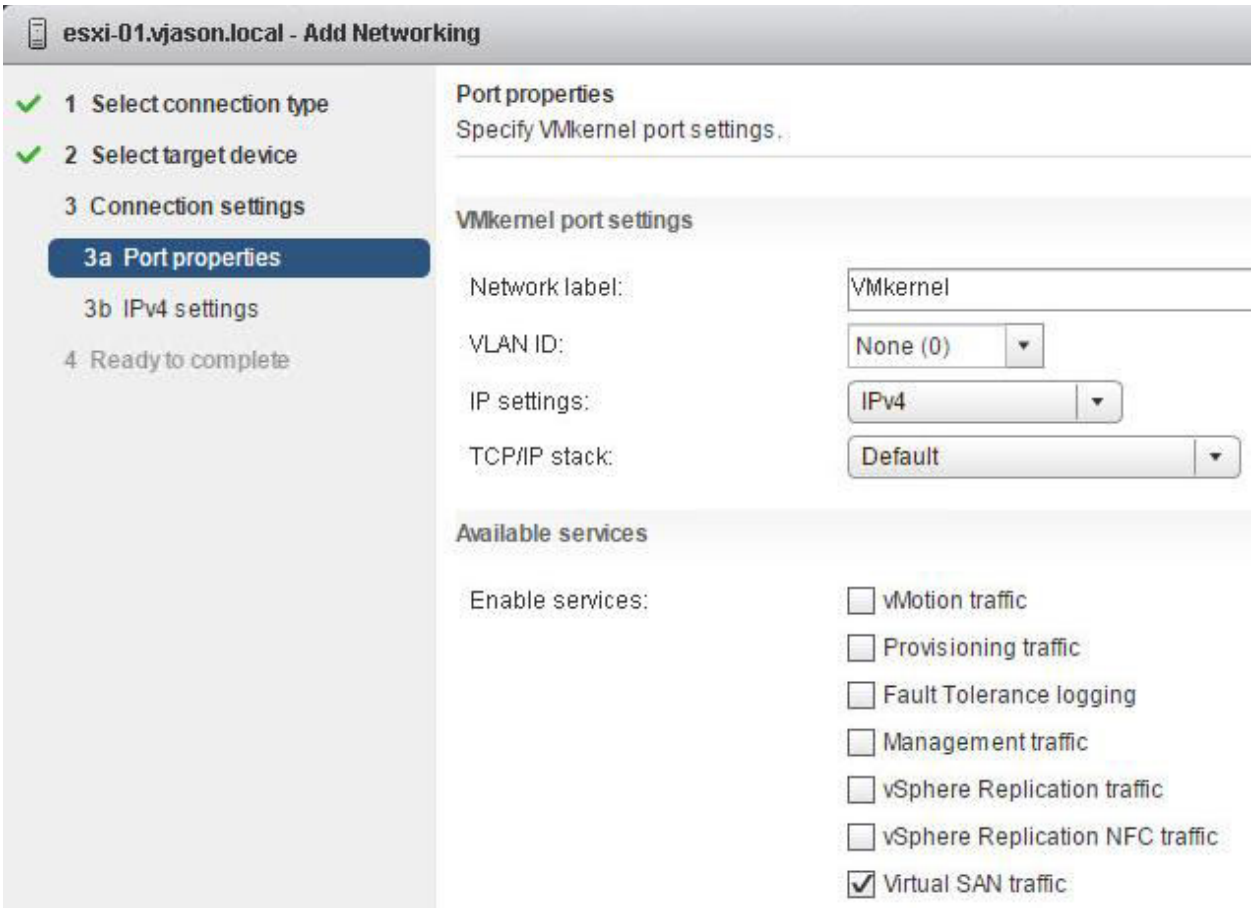
Chapter 7: Using VMware Virtual SAN with Horizon

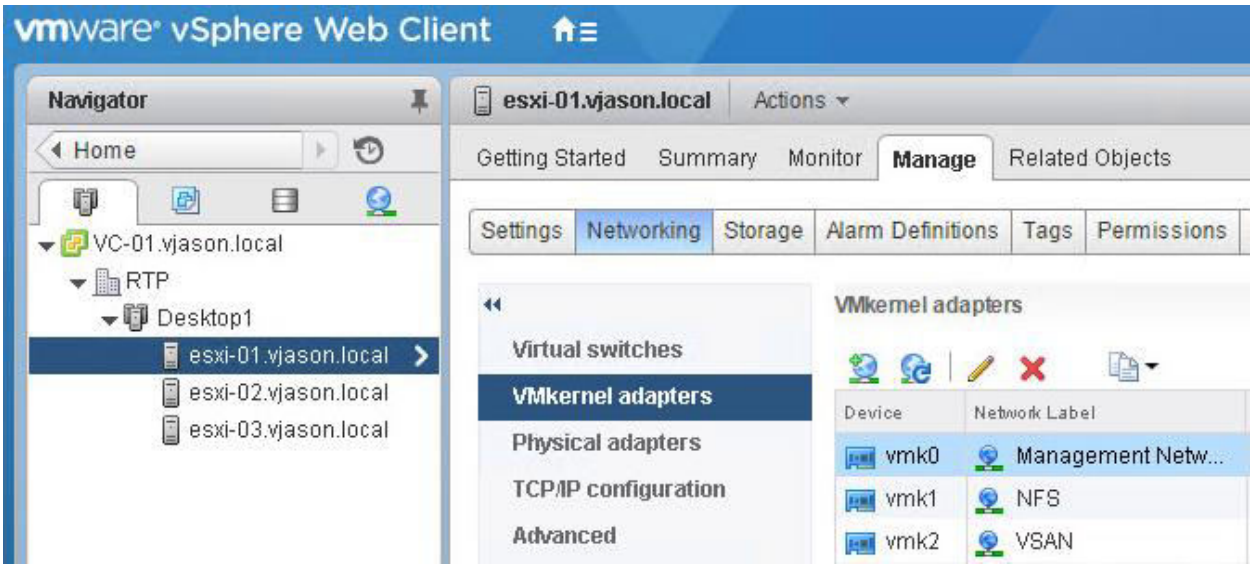


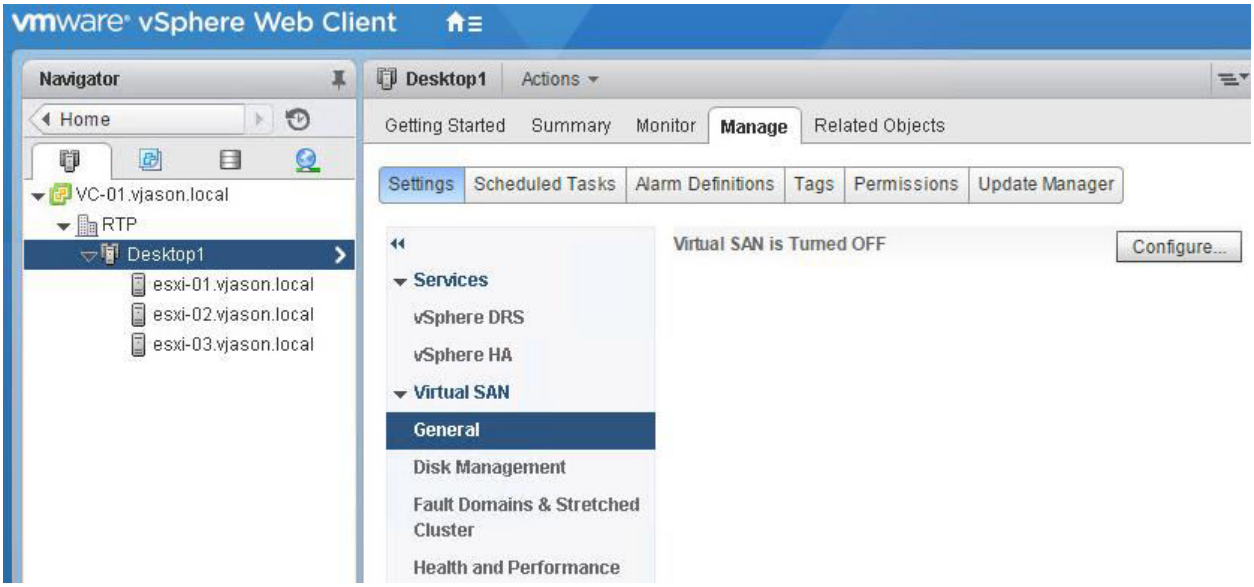


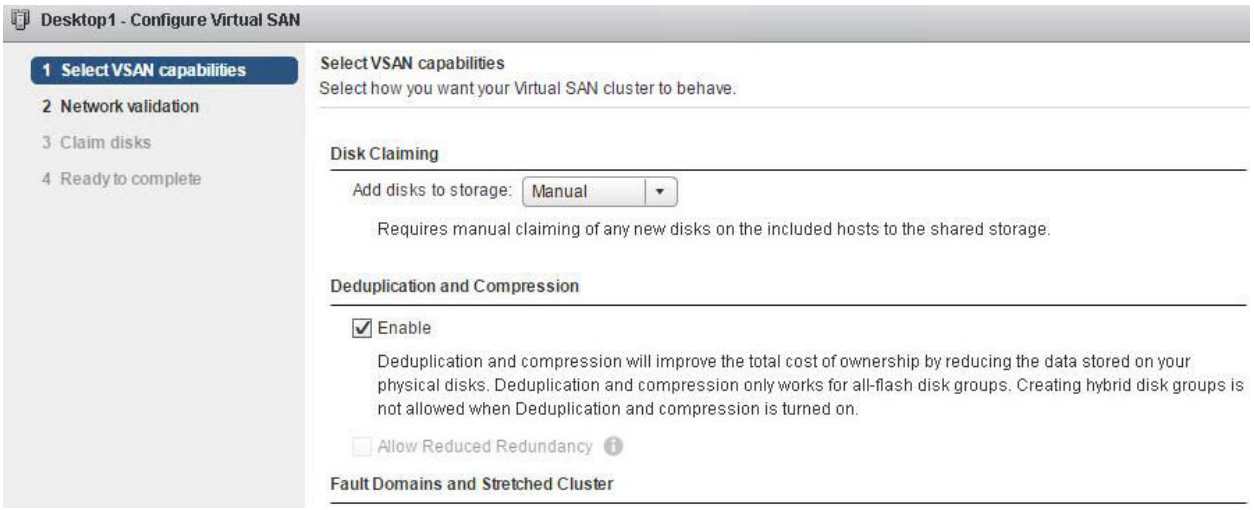


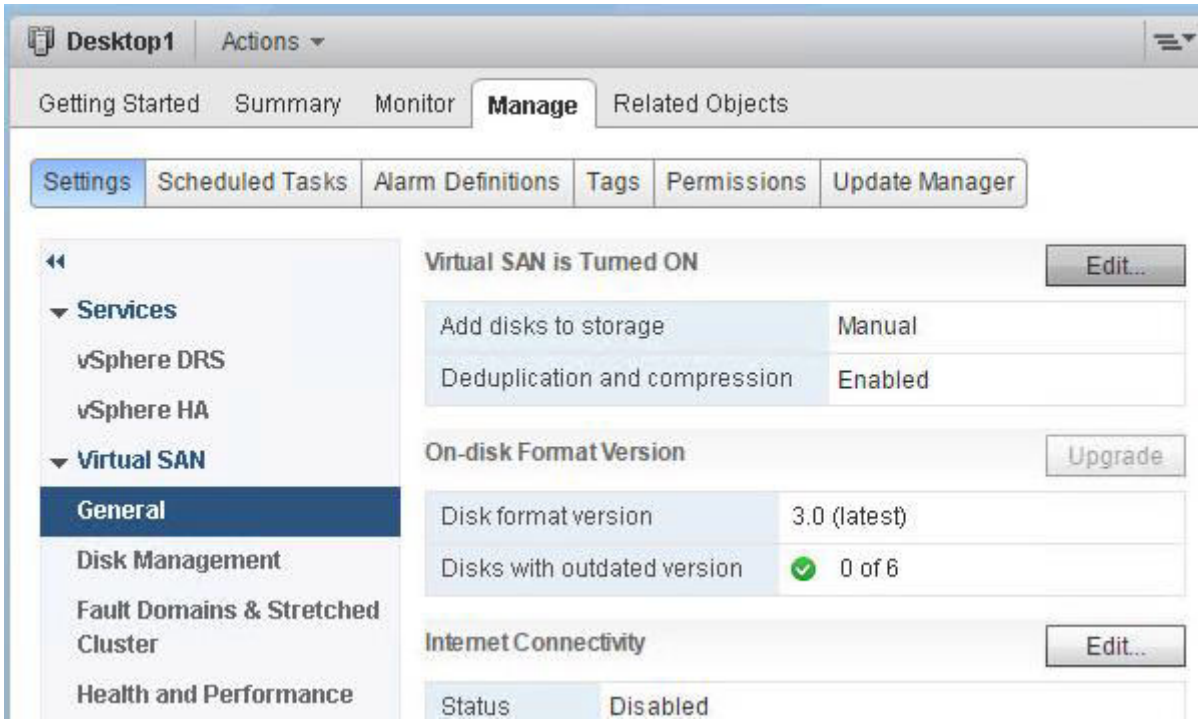

vmware vSphere Web Client
Navigator
Home
VC-01.vjason.local
RTP
Desktop1
esxi-01.vjason.local
esxi-02.vjason.local
esxi-03.vjason.local
esxi-01.vjason.local
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration
VMkernel adapters
Device
Network Label
vmk0
Management Netw...
vmk1
NFS

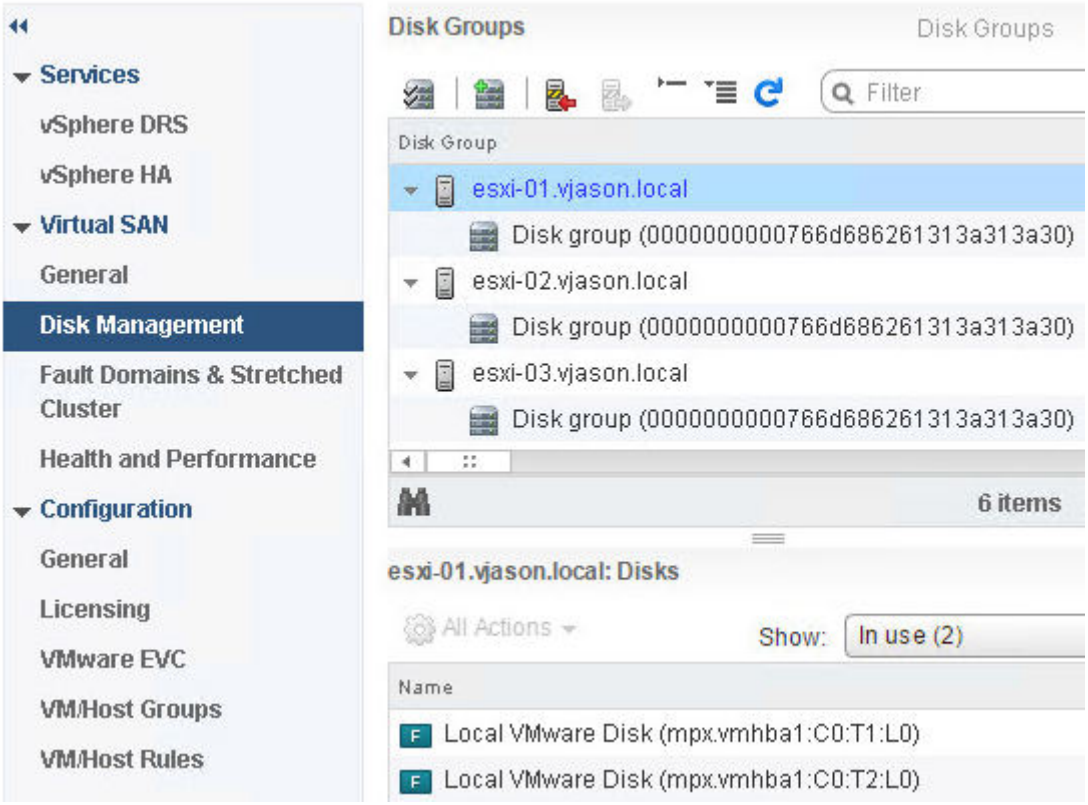

esxi-01.vjason.local - Add Networking
1 Select connection type
2 Select target device
3 Connection settings
3a Port properties
3b IPv4 settings
4 Ready to complete
Port properties
Specify VMkernel port settings.
VMkernel port settings
Network label:
VMkernel
VLAN ID:
None (0)
IP settings:
IPv4
TCP/IP stack:
Default
Available services
Enable services:
vMotion traffic
Provisioning traffic
Fault Tolerance logging
Management traffic
vSphere Replication traffic
vSphere Replication NFC traffic
Virtual SAN traffic

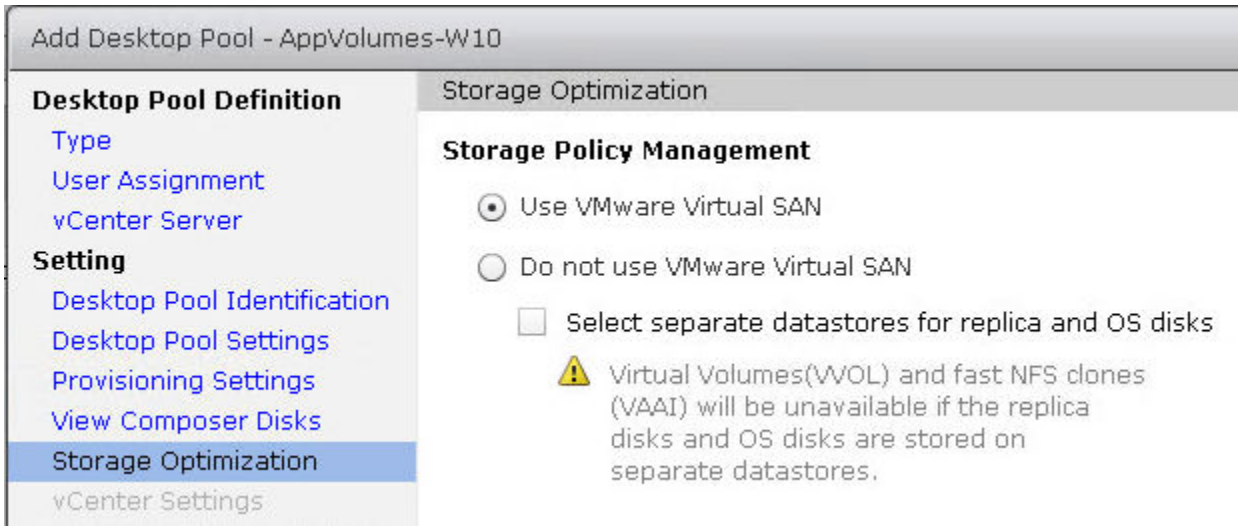

vmware vSphere Web Client
Navigator
Home
VC-01.vjason.local
RTP
Desktop1
esxi-01.vjason.local
esxi-02.vjason.local
esxi-03.vjason.local
esxi-01.vjason.local
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration
Advanced
VMkernel adapters
Device
Network Label
vmk0
Management Netw...
vmk1
NFS
vmk2
VSAN

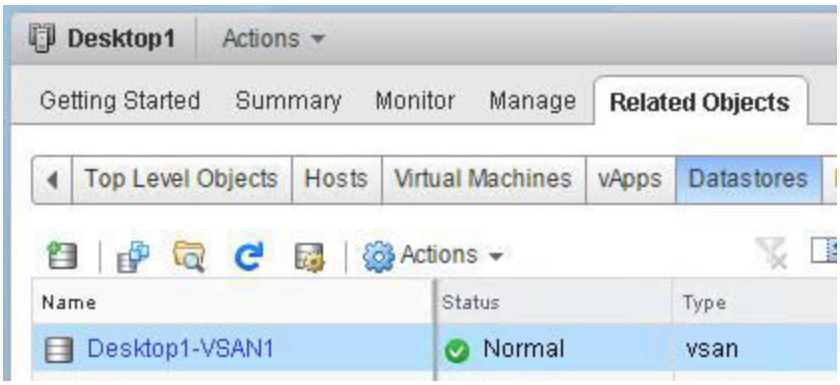

vmware vSphere Web Client
Navigator
Home
VC-01.vjason.local
RTP
Desktop1
esxi-01.vjason.local
esxi-02.vjason.local
esxi-03.vjason.local
Desktop1
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Alarm Definitions
Tags
Permissions
Update Manager
Services
vSphere DRS
vSphere HA
Virtual SAN
General
Disk Management
Fault Domains & Stretched Cluster
Health and Performance
Virtual SAN is Turned OFF
Configure...

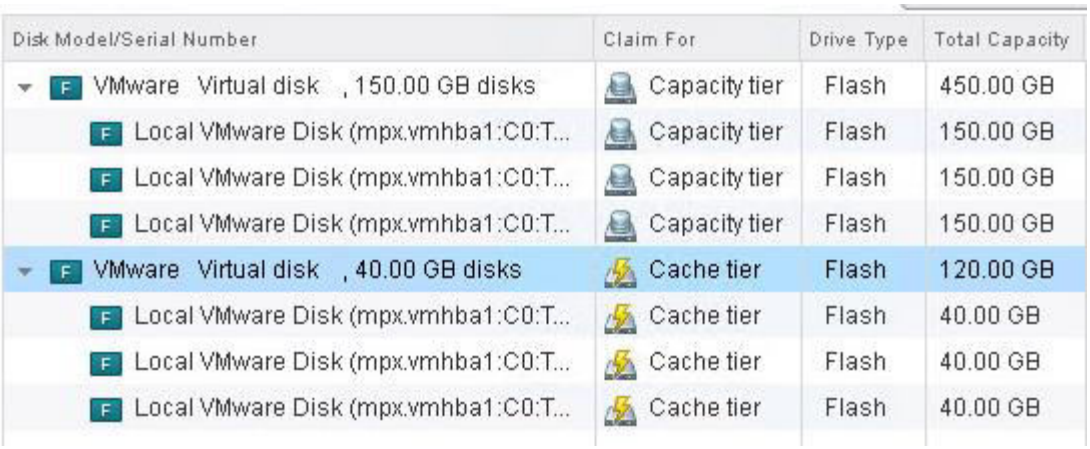

Desktop1 - Configure Virtual SAN
1 Select VSAN capabilities
2 Network validation
3 Claim disks
4 Ready to complete
Select VSAN capabilities
Select how you want your Virtual SAN cluster to behave.
Disk Claiming
Add disks to storage:
Manual
Requires manual claiming of any new disks on the included hosts to the shared storage.
Deduplication and Compression
Enable
Deduplication and compression will improve the total cost of ownership by reducing the data stored on your physical disks. Deduplication and compression only works for all-flash disk groups. Creating hybrid disk groups is not allowed when Deduplication and compression is turned on.
Allow Reduced Redundancy
Fault Domains and Stretched Cluster


Desktop1
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Alarm Definitions
Tags
Permissions
Update Manager
Services
vSphere DRS
vSphere HA
Virtual SAN
General
Disk Management
Fault Domains & Stretched Cluster
Health and Performance
Virtual SAN is Turned ON
Edit...
Add disks to storage
Manual
Deduplication and compression
Enabled
On-disk Format Version
Upgrade
Disk format version
3.0 (latest)
Disks with outdated version
0 of 6
Internet Connectivity
Edit...
Status
Disabled

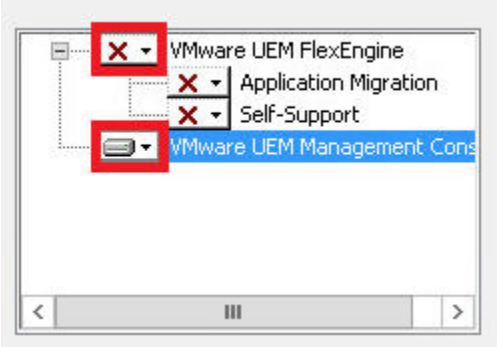

Services
vSphere DRS
vSphere HA
Virtual SAN
General
Disk Management
Fault Domains & Stretched Cluster
Health and Performance
Configuration
General
Licensing
VMware EVC
VM/Host Groups
VM/Host Rules
Disk Groups
Disk Groups
Filter
Disk Group
esxi-01.vjason.local
Disk group (0000000000766d686261313a313a30)
esxi-02.vjason.local
Disk group (0000000000766d686261313a313a30)
esxi-03.vjason.local
Disk group (0000000000766d686261313a313a30)
6 items
esxi-01.vjason.local: Disks
All Actions
Show:
In use (2)
Name
Local VMware Disk (mpx.vmhba1:C0:T1:L0)
Local VMware Disk (mpx.vmhba1:C0:T2:L0)

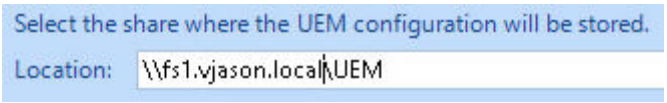

Add Desktop Pool - AppVolumes-W10
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Storage Optimization
Storage Policy Management
Use VMware Virtual SAN
Do not use VMware Virtual SAN
Select separate datastores for replica and OS disks
Virtual Volumes(VVOL) and fast NFS clones (VAAI) will be unavailable if the replica disks and OS disks are stored on separate datastores.

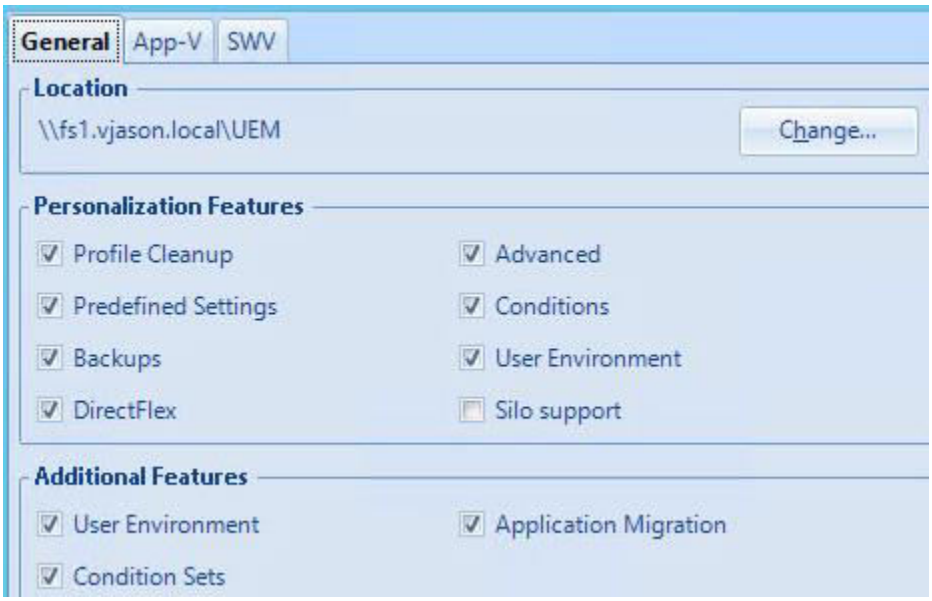

Desktop1
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Top Level Objects
Hosts
Virtual Machines
vApps
Datastores
Actions
Name
Status
Type
Desktop1-VSAN1
Normal
vsan

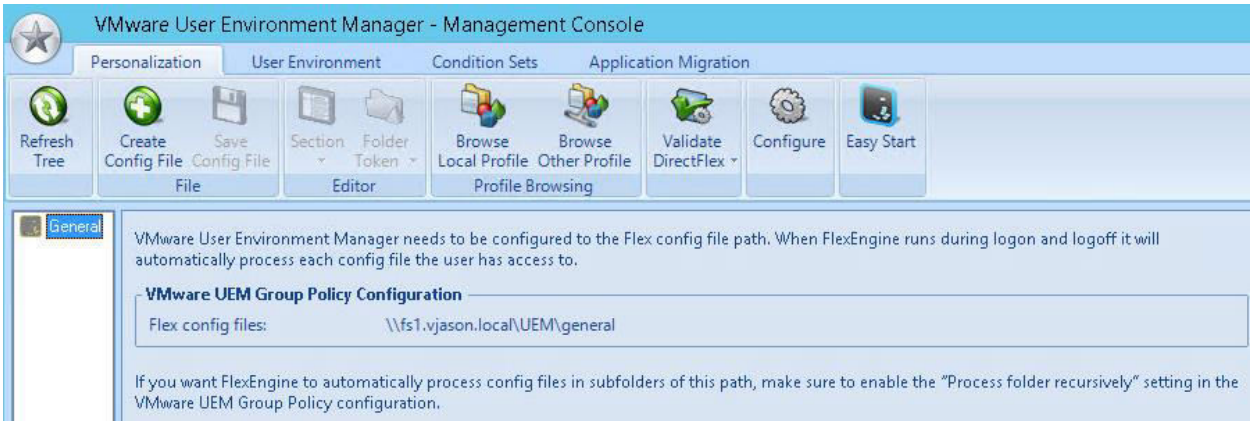

Disk Model/Serial Number
Claim For
Drive Type
Total Capacity
VMware Virtual disk , 150.00 GB disks
Capacity tier
Flash
450.00 GB
Local VMware Disk (mpx.vmhba1:C0:T...
Capacity tier
Flash
150.00 GB
Local VMware Disk (mpx.vmhba1:C0:T...
Capacity tier
Flash
150.00 GB
Local VMware Disk (mpx.vmhba1:C0:T...
Capacity tier
Flash
150.00 GB
VMware Virtual disk , 40.00 GB disks
Cache tier
Flash
120.00 GB
Local VMware Disk (mpx.vmhba1:C0:T...
Cache tier
Flash
40.00 GB
Local VMware Disk (mpx.vmhba1:C0:T...
Cache tier
Flash
40.00 GB
Local VMware Disk (mpx.vmhba1:C0:T...
Cache tier
Flash
40.00 GB

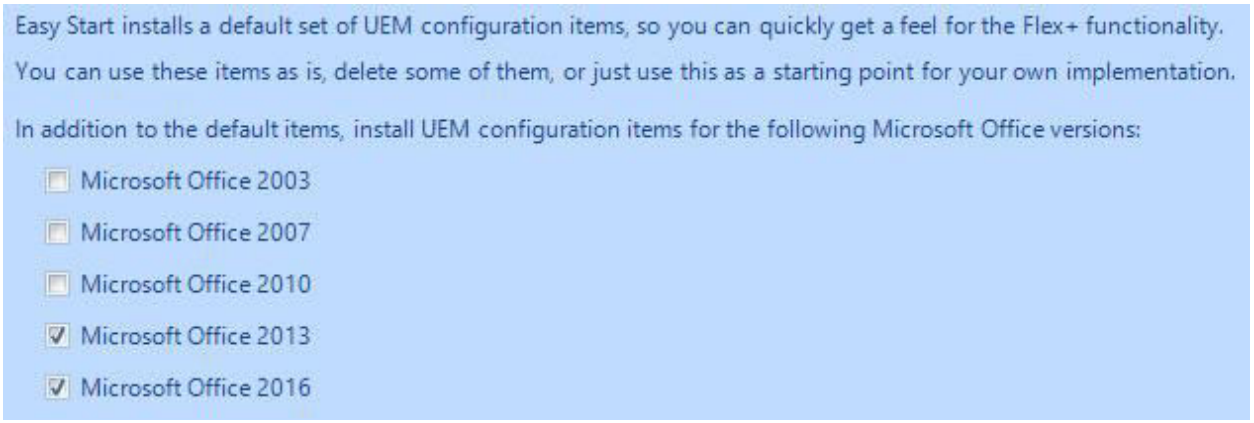
Chapter 8: Implementing VMware User Environment Manager

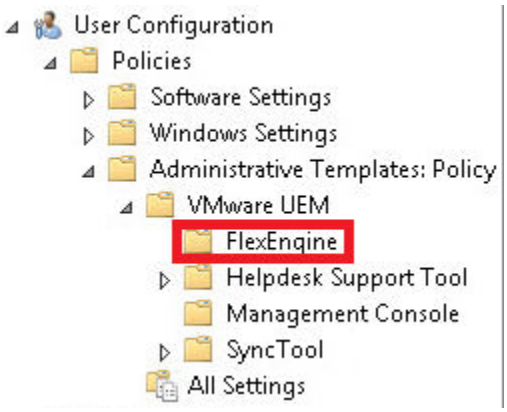


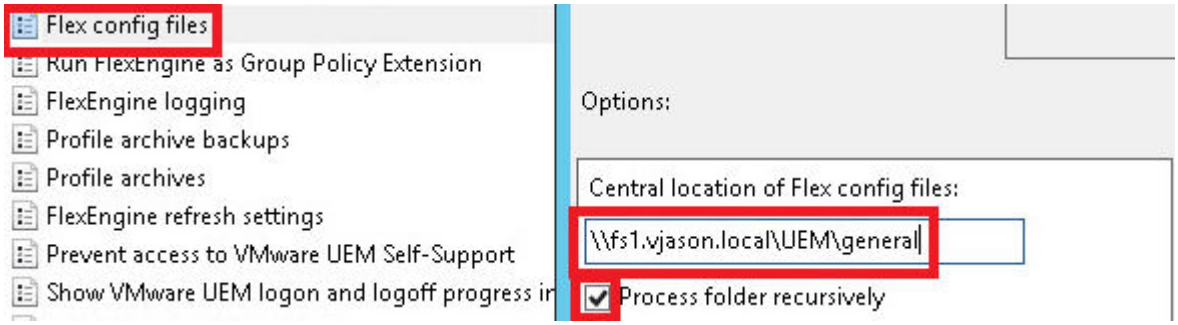


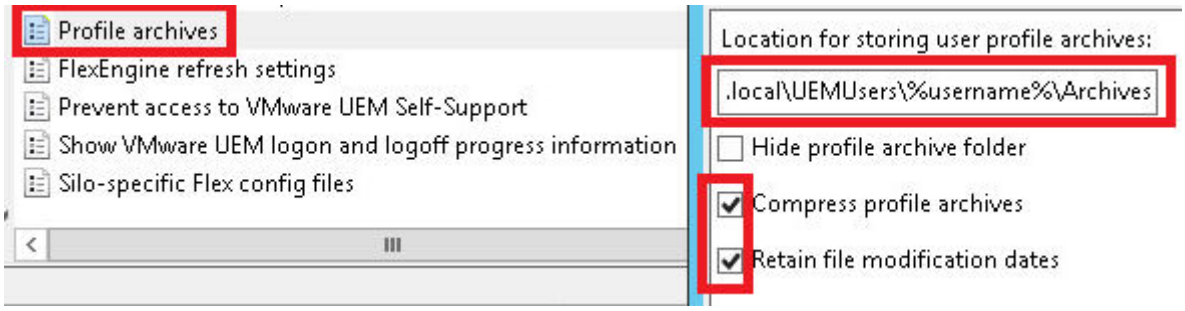

General
App-V
SWV
Location
\\fs1.vjason.local\UEM
Change...
Personalization Features
Profile Cleanup
Predefined Settings
Backups
DirectFlex
Advanced
Conditions
User Environment
Silo support
Additional Features
User Environment
Condition Sets
Application Migration

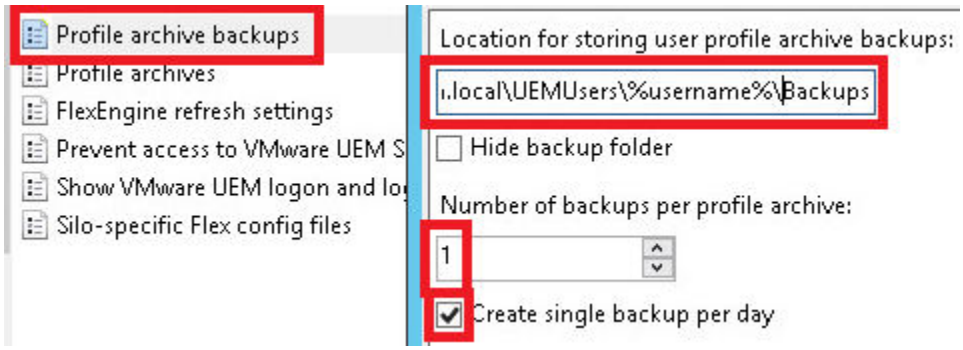

VMware User Environment Manager - Management Console
Personalization
User Environment
Condition Sets
Application Migration
Refresh Tree
Create Config File
Save Config File
File
Section
Folder Token
Editor
Browse Local Profile
Browse Other Profile
Profile Browsing
Validate DirectFlex
Configure
Easy Start
General
VMware User Environment Manager needs to be configured to the Flex config file path. When FlexEngine runs during logon and logoff it will automatically process each config file the user has access to.
VMware UEM Group Policy Configuration
Flex config files:
\\fs1.vjason.local\UEM\general
If you want FlexEngine to automatically process config files in subfolders of this path, make sure to enable the "Process folder recursively" setting in the VMware UEM Group Policy configuration.

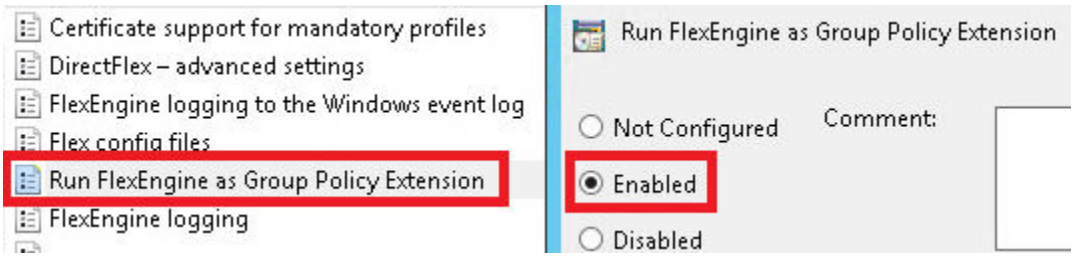

Easy Start installs a default set of UEM configuration items, so you can quickly get a feel for the Flex+ functionality.
You can use these items as is, delete some of them, or just use this as a starting point for your own implementation.
In addition to the default items, install UEM configuration items for the following Microsoft Office versions:
Microsoft Office 2003
Microsoft Office 2007
Microsoft Office 2010
Microsoft Office 2013
Microsoft Office 2016

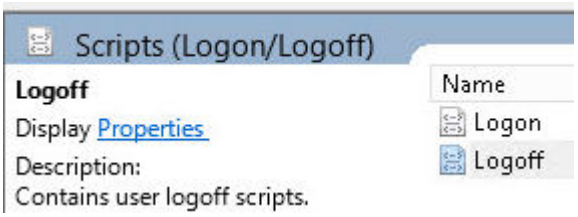

User Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy
VMware UEM
FlexEngine
Helpdesk Support Tool
Management Console
SyncTool
All Settings

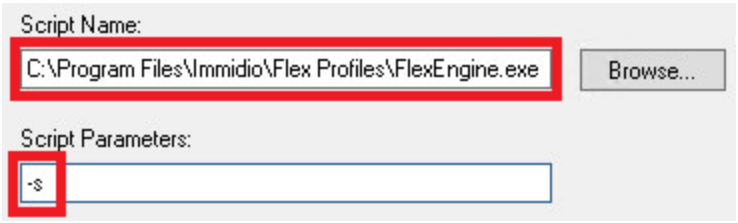

Flex config files
Run FlexEngine as Group Policy Extension
FlexEngine logging
Profile archive backups
Profile archives
FlexEngine refresh settings
Prevent access to VMware UEM Self-Support
Show VMware UEM logon and logoff progress in
Options:
Central location of Flex config files:
\\fs1.vjason.local\UEM\general
Process folder recursively

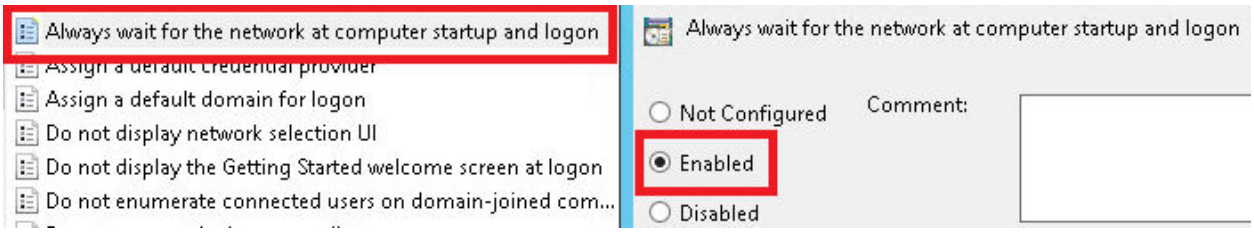

Profile archives
FlexEngine refresh settings
Prevent access to VMware UEM Self-Support
Show VMware UEM logon and logoff progress information
Silo-specific Flex config files
Location for storing user profile archives:
.local\UEMUsers\%username%\Archives
Hide profile archive folder
Compress profile archives
Retain file modification dates

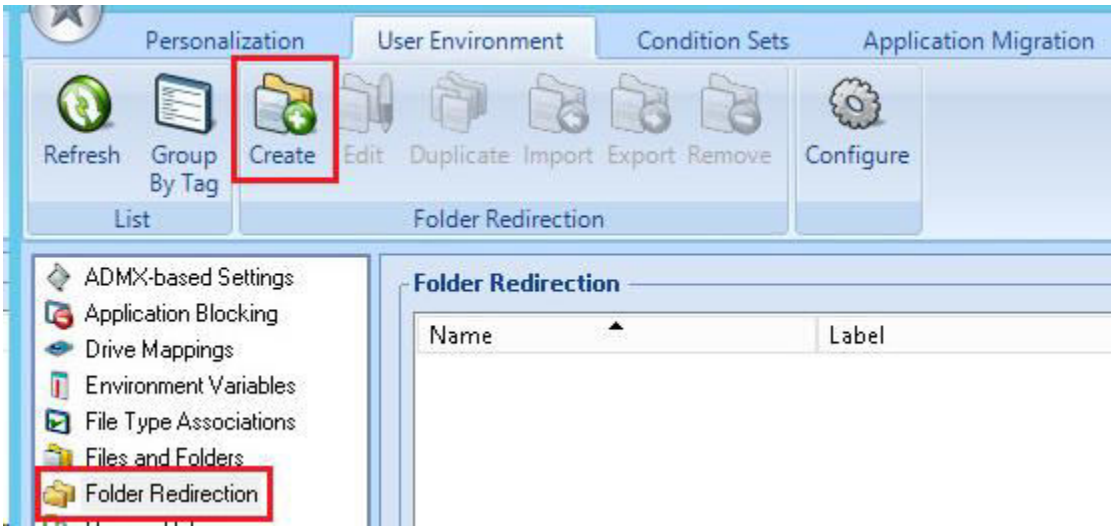

Profile archive backups
Profile archives
FlexEngine refresh settings
Prevent access to VMware UEM S
Show VMware UEM logon and lo
Silo-specific Flex config files
Location for storing user profile archive backups:
.local\UEMUsers\%username%\Backups
Hide backup folder
Number of backups per profile archive:
1
Create single backup per day

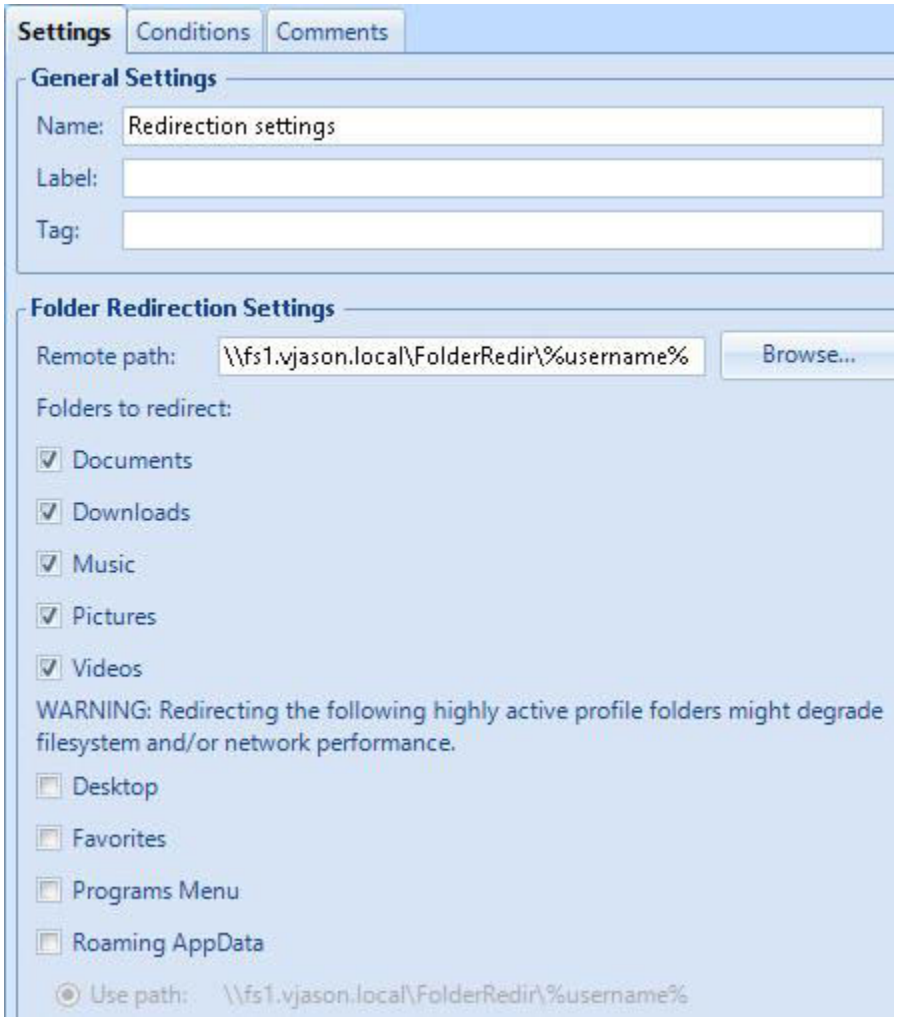

Certificate support for mandatory profiles
DirectFlex – advanced settings
FlexEngine logging to the Windows event log
Flex config files
Run FlexEngine as Group Policy Extension
FlexEngine logging
Run FlexEngine as Group Policy Extension
Not Configured
Comment:
Enabled
Disabled

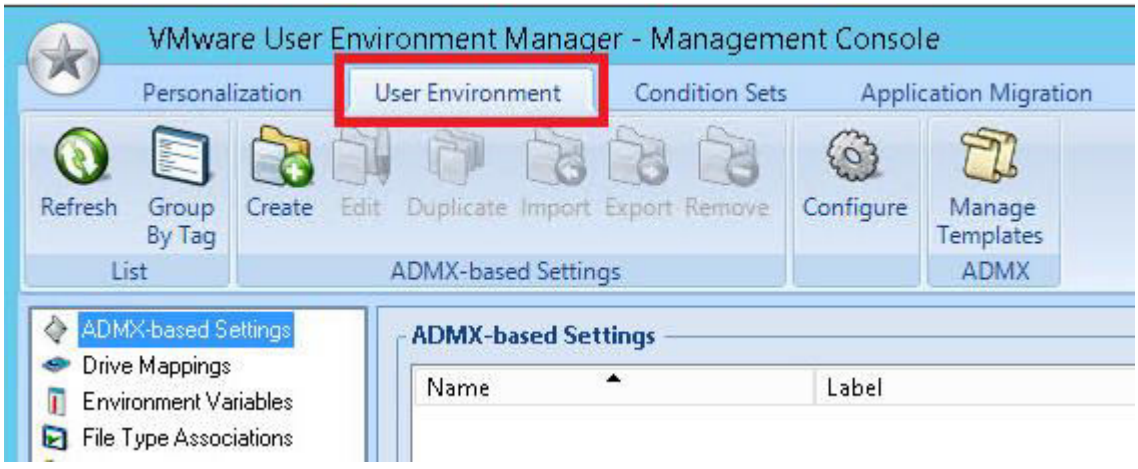

Scripts (Logon/Logoff)
Logoff
Display Properties
Description:
Contains user logoff scripts.
Name
Logon
Logoff

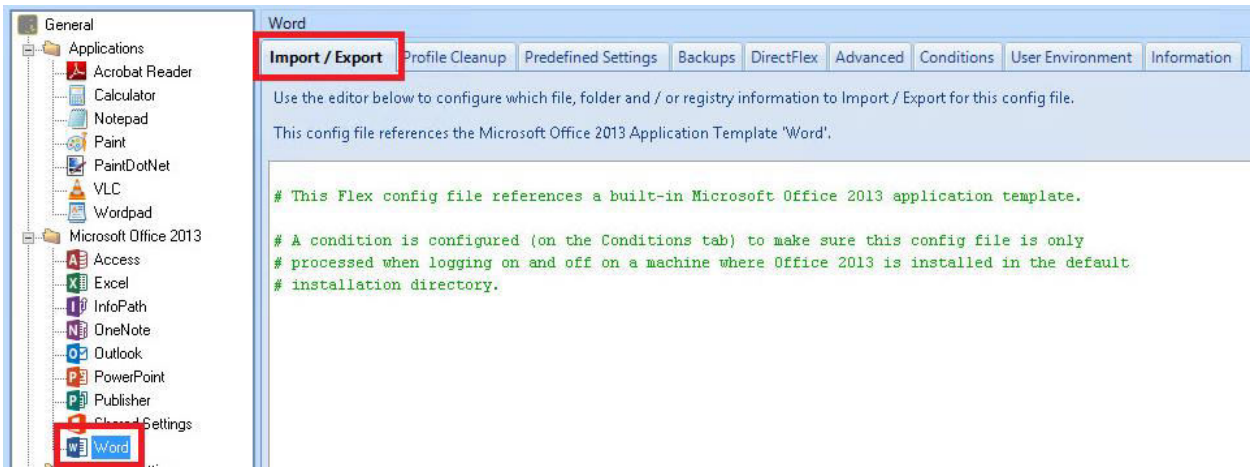

Script Name:
C:\Program Files\Immidio\Flex Profiles\FlexEngine.exe
Browse...
Script Parameters:
-s

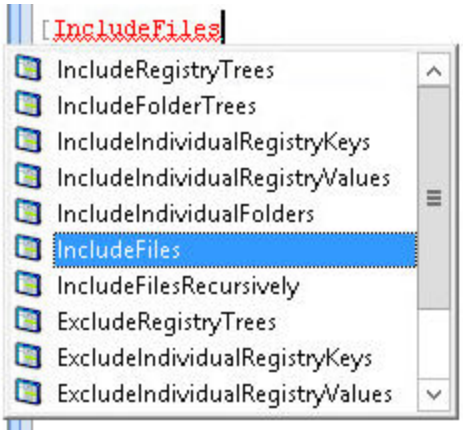

Always wait for the network at computer startup and logon
Assign a default domain for logon
Do not display network selection UI
Do not display the Getting Started welcome screen at logon
Do not enumerate connected users on domain-joined com...
Always wait for the network at computer startup and logon
Not Configured
Comment:
Enabled
Disabled

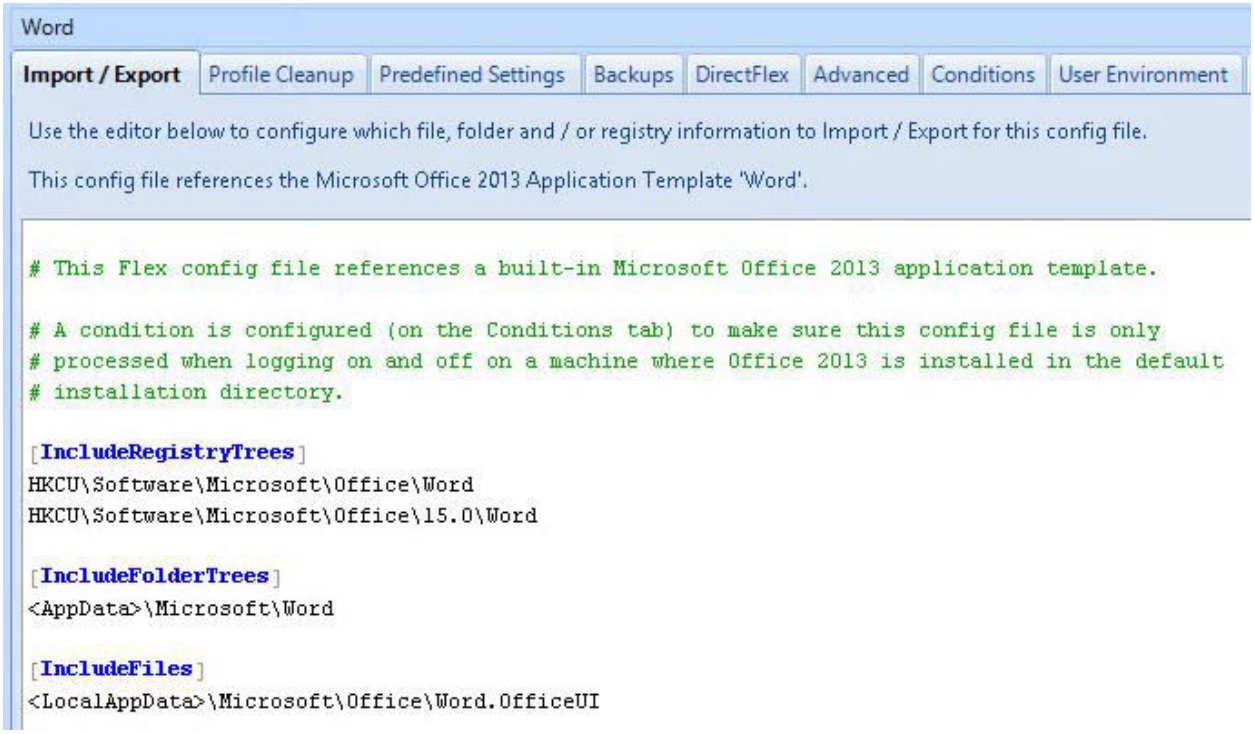

Personalization
User Environment
Condition Sets
Application Migration
Refresh
Group By Tag
Create
Edit
Duplicate
Import
Export
Remove
Configure
List
Folder Redirection
ADMX-based Settings
Application Blocking
Drive Mappings
Environment Variables
File Type Associations
Files and Folders
Folder Redirection
Folder Redirection
Name
Label

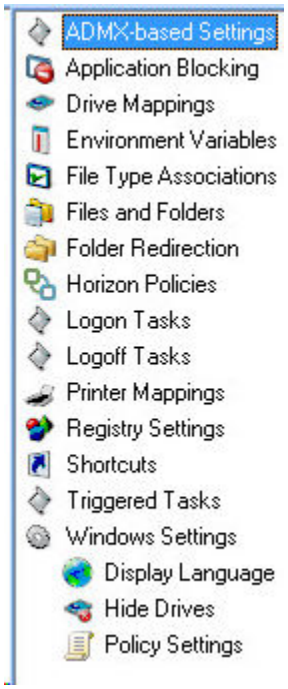

Settings
Conditions
Comments
General Settings
Name:
Redirection settings
Label:
Tag:
Folder Redirection Settings
Remote path:
\\fs1.vjason.local\FolderRedir\%username%
Browse...
Folders to redirect:
Documents
Downloads
Music
Pictures
Videos
WARNING: Redirecting the following highly active profile folders might degrade filesystem and/or network performance.
Desktop
Favorites
Programs Menu
Roaming AppData
Use path:
\\fs1.vjason.local\FolderRedir\%username%

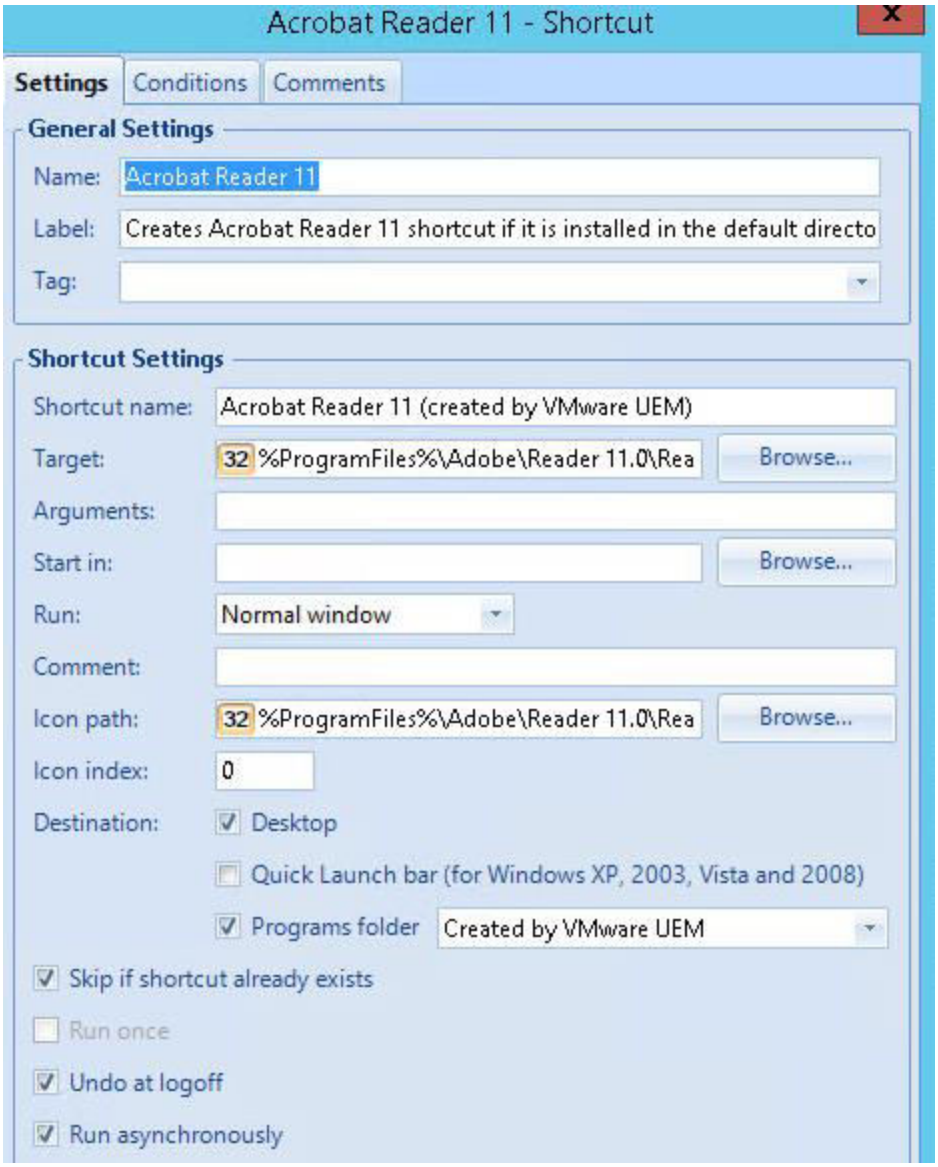

VMware User Environment Manager - Management Console
Personalization
User Environment
Condition Sets
Application Migration
Refresh
Group By Tag
Create
Edit
Duplicate
Import
Export
Remove
Configure
Manage Templates
List
ADMX-based Settings
ADMX
ADMX-based Settings
Drive Mappings
Environment Variables
File Type Associations
ADMX-based Settings
Name
Label


General
Applications
Acrobat Reader
Calculator
Notepad
Paint
PaintDotNet
VLC
Wordpad
Microsoft Office 2013
Access
Excel
InfoPath
OneNote
Outlook
PowerPoint
Publisher
Word
Word
Import / Export
Profile Cleanup
Predefined Settings
Backups
DirectFlex
Advanced
Conditions
User Environment
Information
Use the editor below to configure which file, folder and / or registry information to Import / Export for this config file.
This config file references the Microsoft Office 2013 Application Template 'Word'.
This Flex config file references a built-in Microsoft Office 2013 application template.
A condition is configured (on the Conditions tab) to make sure this config file is only
processed when logging on and off on a machine where Office 2013 is installed in the default
installation directory.

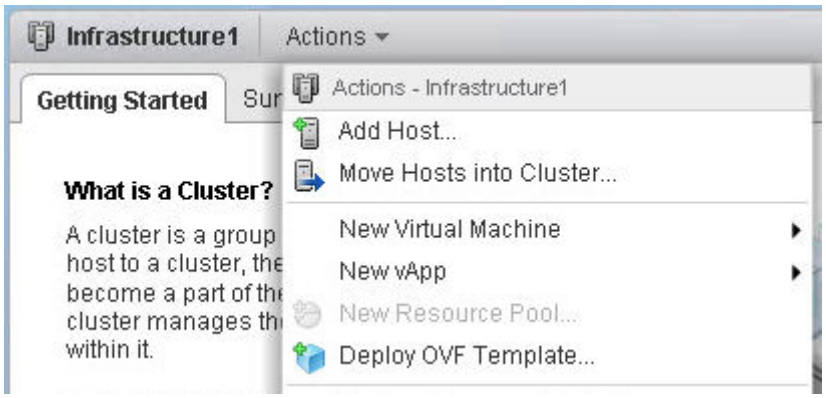

[IncludeFiles
IncludeRegistryTrees
IncludeFolderTrees
IncludeIndividualRegistryKeys
IncludeIndividualRegistryValues
IncludeIndividualFolders
IncludeFiles
IncludeFilesRecursively
ExcludeRegistryTrees
ExcludeIndividualRegistryKeys
ExcludeIndividualRegistryValues


Word
Import / Export
Profile Cleanup
Predefined Settings
Backups
DirectFlex
Advanced
Conditions
User Environment
Use the editor below to configure which file, folder and / or registry information to Import / Export for this config file.
This config file references the Microsoft Office 2013 Application Template 'Word'.
This Flex config file references a built-in Microsoft Office 2013 application template.
A condition is configured (on the Conditions tab) to make sure this config file is only
processed when logging on and off on a machine where Office 2013 is installed in the default
installation directory.
[IncludeRegistryTrees]
HKCU\Software\Microsoft\Office\Word
HKCU\Software\Microsoft\Office\15.0\Word
[IncludeFolderTrees]
<AppData>\Microsoft\Word
[IncludeFiles]
<LocalAppData>\Microsoft\Office\Word.OfficeUI


ADMX-based Settings
Application Blocking
Drive Mappings
Environment Variables
File Type Associations
Files and Folders
Folder Redirection
Horizon Policies
Logon Tasks
Logoff Tasks
Printer Mappings
Registry Settings
Shortcuts
Triggered Tasks
Windows Settings
Display Language
Hide Drives
Policy Settings


Acrobat Reader 11 - Shortcut
Settings
Conditions
Comments
General Settings
Name:
Acrobat Reader 11
Label:
Creates Acrobat Reader 11 shortcut if it is installed in the default directo
Tag:
Shortcut Settings
Shortcut name:
Acrobat Reader 11 (created by VMware UEM)
Target:
%ProgramFiles%\Adobe\Reader 11.0\Rea
Browse...
Arguments:
Start in:
Browse...
Run:
Normal window
Comment:
Icon path:
%ProgramFiles%\Adobe\Reader 11.0\Rea
Browse...
Icon index:
0
Destination:
Desktop
Quick Launch bar (for Windows XP, 2003, Vista and 2008)
Programs folder
Created by VMware UEM
Skip if shortcut already exists
Run once
Undo at logoff
Run asynchronously

Chapter 9: Implementing VMware App Volumes



Networking Properties	6 settings
Default Gateway	The default gateway address for this VM. Leave blank if DHCP is desired. 172.16.100.1
Domain Name	The domain name of this VM. Leave blank if DHCP is desired. vjason.local
Domain Search Path	The domain search path (comma or space separated domain names) for this VM. Leave blank if DHCP is desired. vjason.local
Domain Name Servers	The domain name server IP Addresses for this VM (comma separated). Leave blank if DHCP is desired. 172.16.100.6
Network 1 IP Address	The IP address for this interface. Leave blank if DHCP is desired. 172.16.100.30
Network 1 Netmask	The netmask or prefix for this interface. Leave blank if DHCP is desired. 255.255.224.0

Register Active Directory

* NETBIOS Name: vjason

* DNS Domain Name: vjason.local

* Protocol: (•) LDAP ( ) LDAPS

* Bind Username: svc-appvolumes

* Bind Password: ••••••••••

Add Super Administrator

User Group:

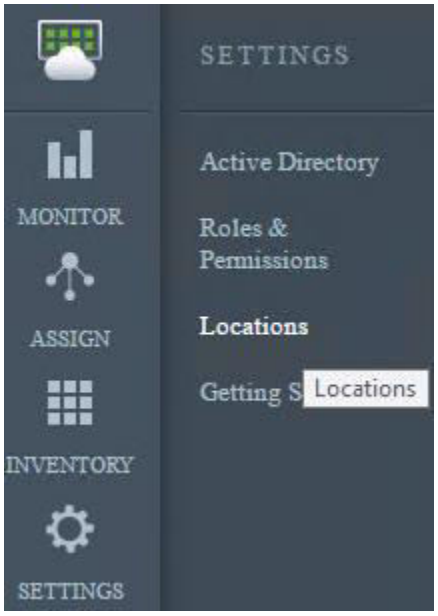
Active Directory Search

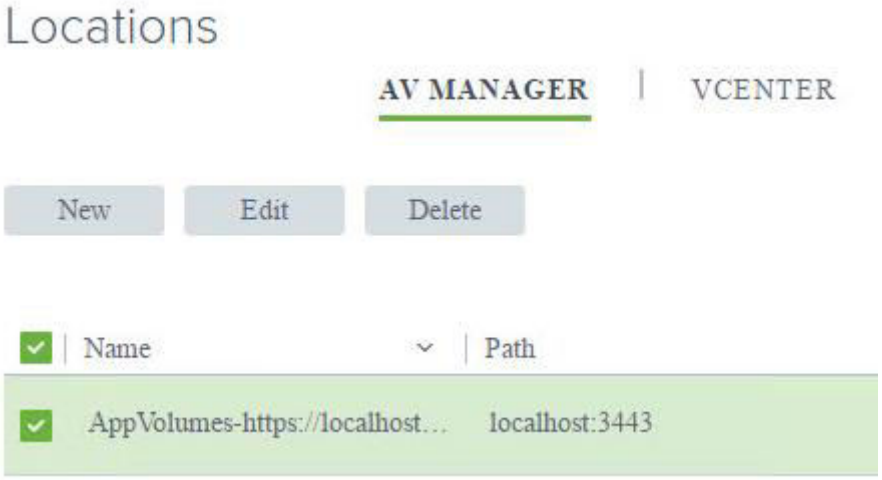
Selected User Group:

AppVolumes_Admins ×

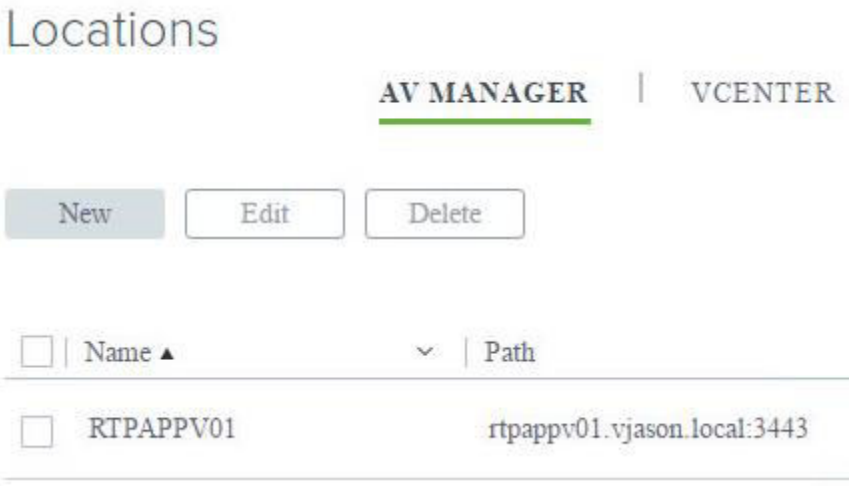
New vCenter

* Name:	VC-01
* Hostname:	vc-01.vjason.local
City Name:	City Search
	Raleigh
* vCenter Username:	vjason\svc-appvolumes
* vCenter Password:	••••••••••
* ESX Username:	appvol
* ESX Password:	••••••••••
AV Managers:	
* Appstack Datastore Prefix:	AVA
* Writable Datastore Prefix:	AVW




Locations
AV MANAGER
VCENTER
New
Edit
Delete
Name
Path
AppVolumes-https://localhost…
localhost:3443

Edit AV Manager
*Name:
RTPAPPV01
*Path:
rtpappv01.vjason.local:3443
Destination vCenters:
VC-01

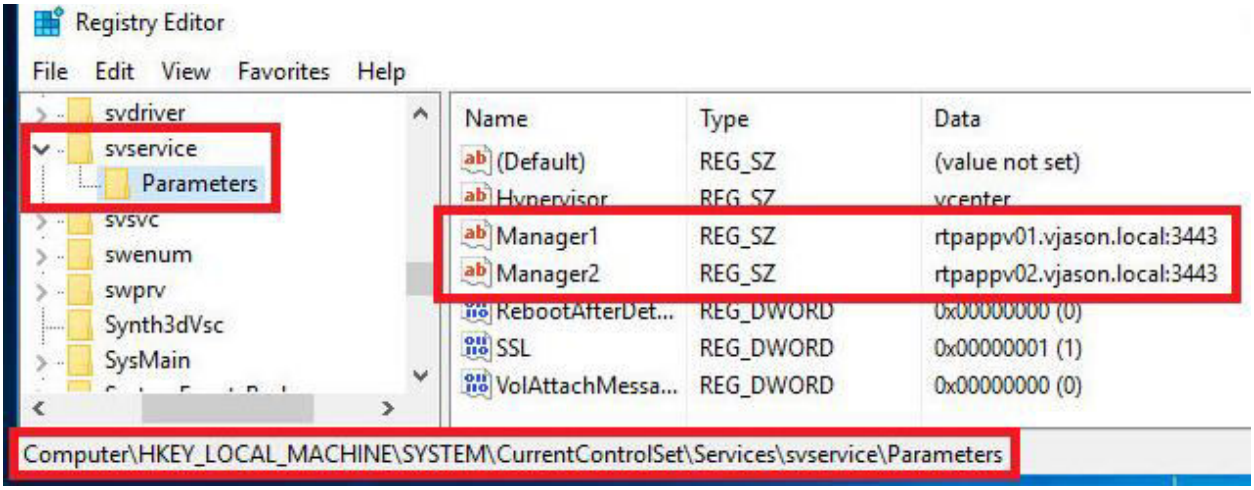

Locations
AV MANAGER
VCENTER
New
Edit
Delete
Name
Path
RTPAPPV01
rtpappv01.vjason.local:3443

New File Share

* Name:	VC-01 AppStack Share
* Type:	Applications
* Source Path:	\\vc-01.vjason.local\AppCapture
* Destination vCenters:	VC-01 ×

New AV Manager

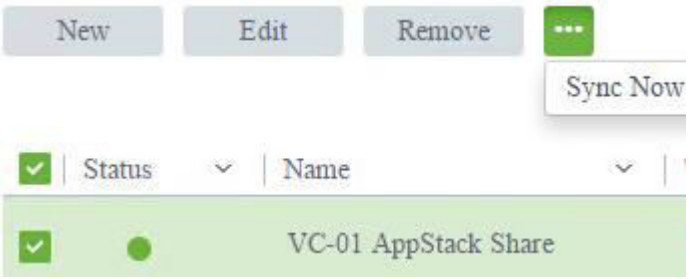
* Name:	RTPAPPV02
* Path:	https://rtpappv02.vjason.local:3443
Destination vCenters:	VC-01 ×



```
c:\Program Files (x86)\VMware\AppCapture>AppCapture.exe /n NotepadPlus

VMware AppCapture Program
Version 3.0.0.340 (with App Volumes Agent v3.0.0.0)
Copyright (c) 2016 VMware, Inc.

INFO : creating output disk (copying 100 % done)
INFO : preparing output virtual disk for capture
INFO : attaching virtual disk for capture
INFO : disk attachment complete
INFO : waiting to become capture-ready: 8

  Ready to capture application(s):
  --------------------------------------------------------------------------------
  Run installers to install applications. If an installer requires a machine
  reboot, allow the reboot to proceed. When the installation is complete, hit
  ENTER at the prompt below, to begin reboot and finalize capture.

  Use "CTRL+C" to cancel and begin a new session.

  After all application installs are complete, hit ENTER here :
```

```
 After all application installs are complete, hit ENTER here :

 System will now reboot to finalize capture. Hit ENTER again to confirm :
```

```
 --------------------------------------------------------------------------------
 Virtual disks with captured application(s) are now available at:

 C:\ProgramData\VMware\AppCapture\appvhds\NotepadPlus.vhd
 C:\ProgramData\VMware\AppCapture\appvhds\NotepadPlus.vmdk
 --------------------------------------------------------------------------------
```



```
c:\Program Files (x86)\VMware\AppCapture>AppCapture.exe /n NotepadPlus-1 /s "C:\NotepadPlus\NotepadPlus.vhd"
```

```
Ready to capture application(s):
--------------------------------------------------------------------------------
Run installers to install applications. If an installer requires a machine
reboot, allow the reboot to proceed. When the installation is complete, hit
ENTER at the prompt below, to begin reboot and finalize capture.

Use "CTRL+C" to cancel and begin a new session.

After all application installs are complete, hit ENTER here :
```

```
--------------------------------------------------------------------------------
Virtual disks with captured application(s) are now available at:

C:\ProgramData\VMware\AppCapture\appvhds\NotepadPlus-1.vhd
C:\ProgramData\VMware\AppCapture\appvhds\NotepadPlus-1.vmdk
--------------------------------------------------------------------------------
```

NotepadPlus-1.json - Notepad

```
"apps" : [
        {
                "name" : "Notepad++",
             "version" : "6.8.3-Rev2",
           "publisher" : "Notepad++ Team",
```

Applications

Status	Application	OS
●	Notepad++(6.8.3)	Windows 10 (x64)
●	Notepad++(6.8.3-Rev2)	Windows 10 (x64)

New Applications Assignment

1. DEFINITION | 2. APPLICATIONS | 3. USERS

* Assignment Name: NotepadPlus

* OS: Windows 10 (x64)

Computer Name Prefix:

Writable Volume: NO

New Applications Assignment

1. DEFINITION | 2. APPLICATIONS | 3.

Application	Publisher
Notepad++(6.8.3)	Notepad++ Team

Assignments

New | Edit | Delete

Status	Name	Type	Capacity	OS	Users
●	NotepadPlus	Native Application	NA	Windows 10 (x64)	1

Assignments

New | Edit | Delete

Status	Name
●	NotepadPlus

New Applications Assignment

1. DEFINITION | 2. APPLICATIONS | 3. USERS

* Assignment Name: NotepadPlus

* OS: Windows 10 (x64)

Computer Name Prefix:

Writable Volume: YES

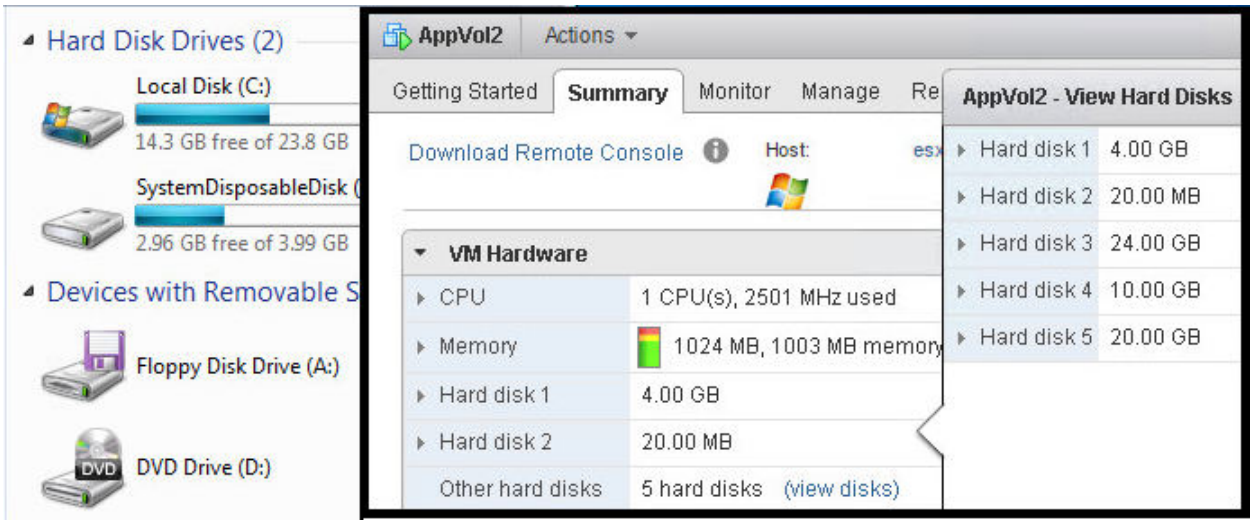
1. DEFINITION | 2. APPLICATIONS | 3. USERS

* Assignment Name: NotepadPlus

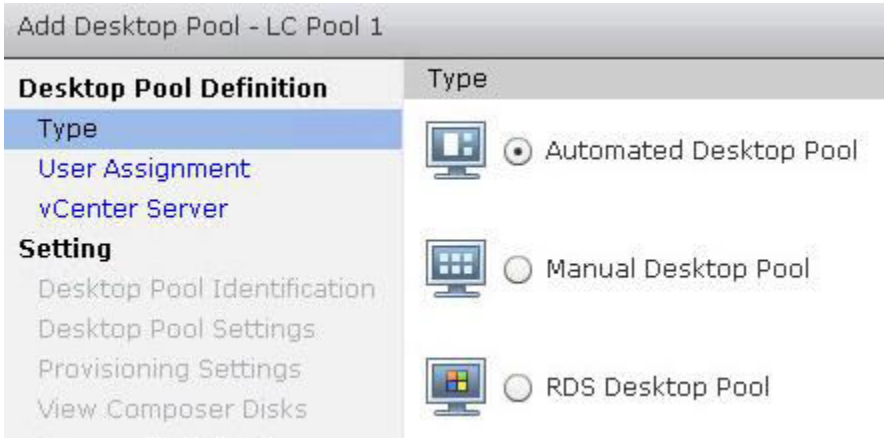
* OS: Windows 10 (x64)

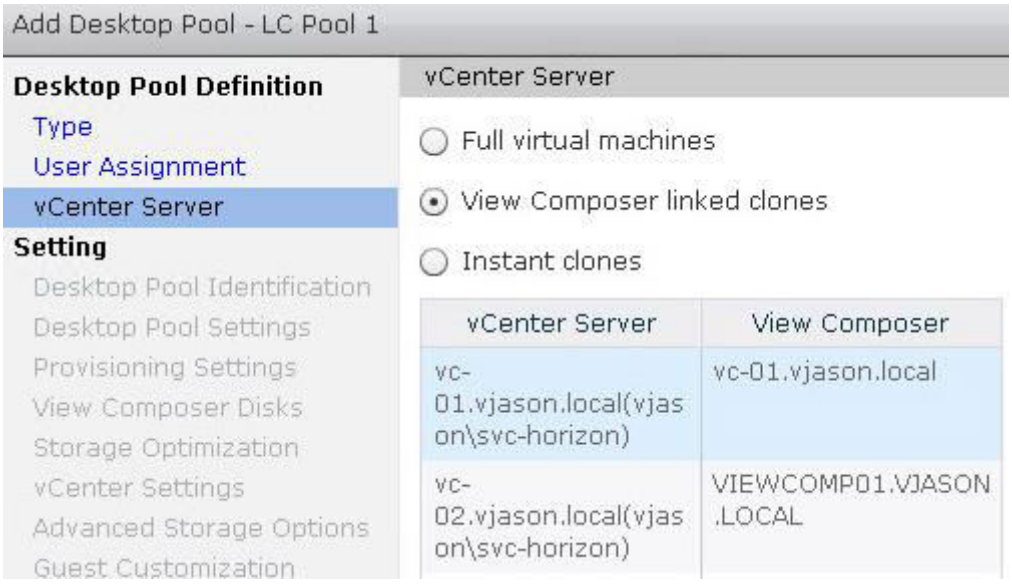
Computer Name Prefix:

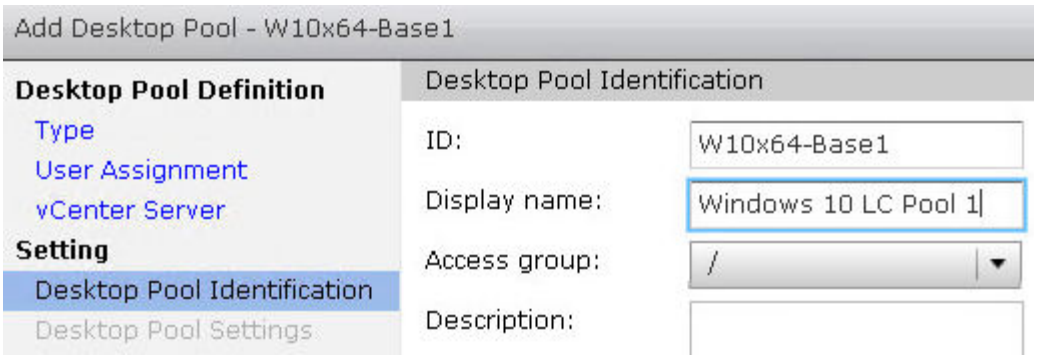
Writable Volume: NO

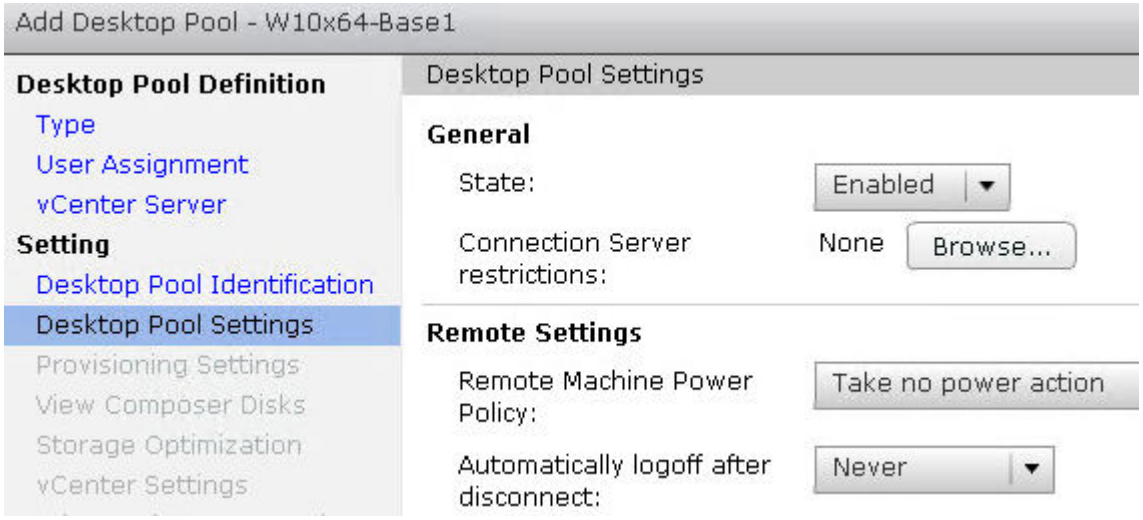

Hard Disk Drives (2)
Local Disk (C:)
14.3 GB free of 23.8 GB
SystemDisposableDisk (
2.96 GB free of 3.99 GB
Devices with Removable S
Floppy Disk Drive (A:)
DVD
DVD Drive (D:)
AppVol2
Actions
Getting Started
Summary
Monitor
Manage
Re
Download Remote Console
Host:
esx
VM Hardware
CPU
1 CPU(s), 2501 MHz used
Memory
1024 MB, 1003 MB memory
Hard disk 1
4.00 GB
Hard disk 2
20.00 MB
Other hard disks
5 hard disks
(view disks)
AppVol2 - View Hard Disks
Hard disk 1
4.00 GB
Hard disk 2
20.00 MB
Hard disk 3
24.00 GB
Hard disk 4
10.00 GB
Hard disk 5
20.00 GB

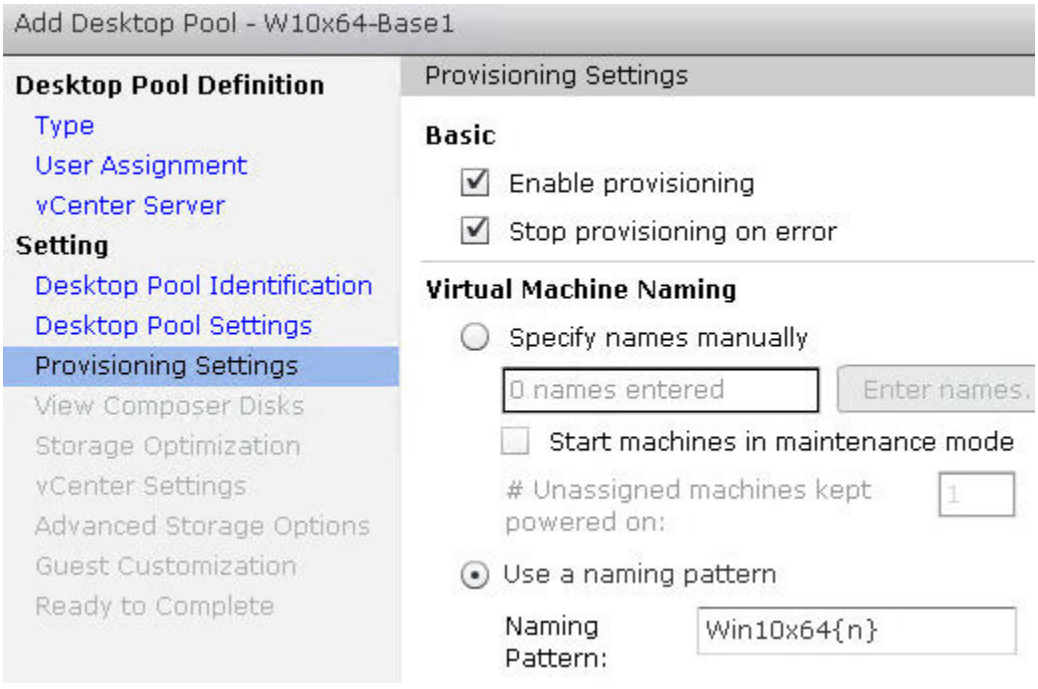
Chapter 10: Creating Horizon Desktop Pools

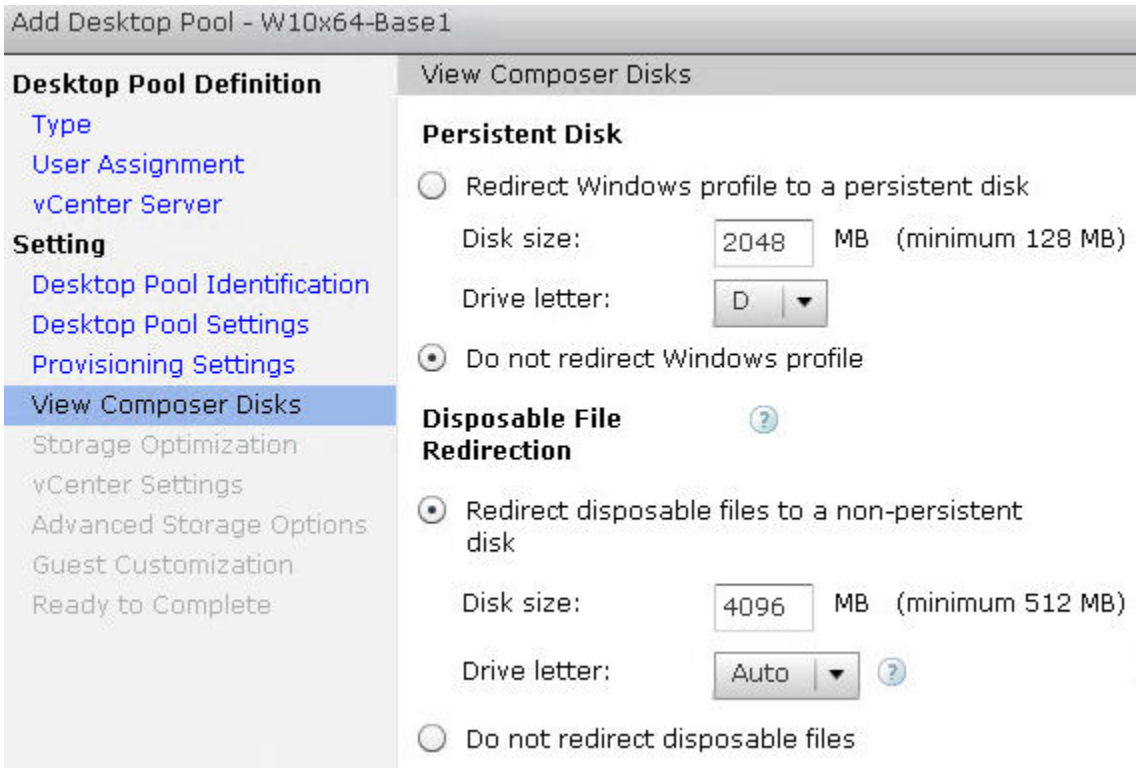


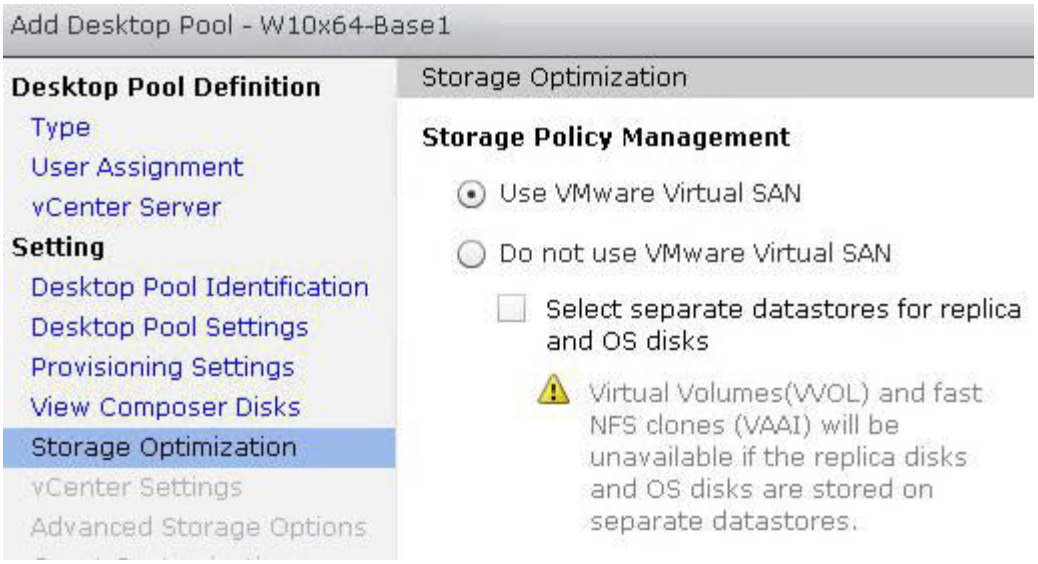


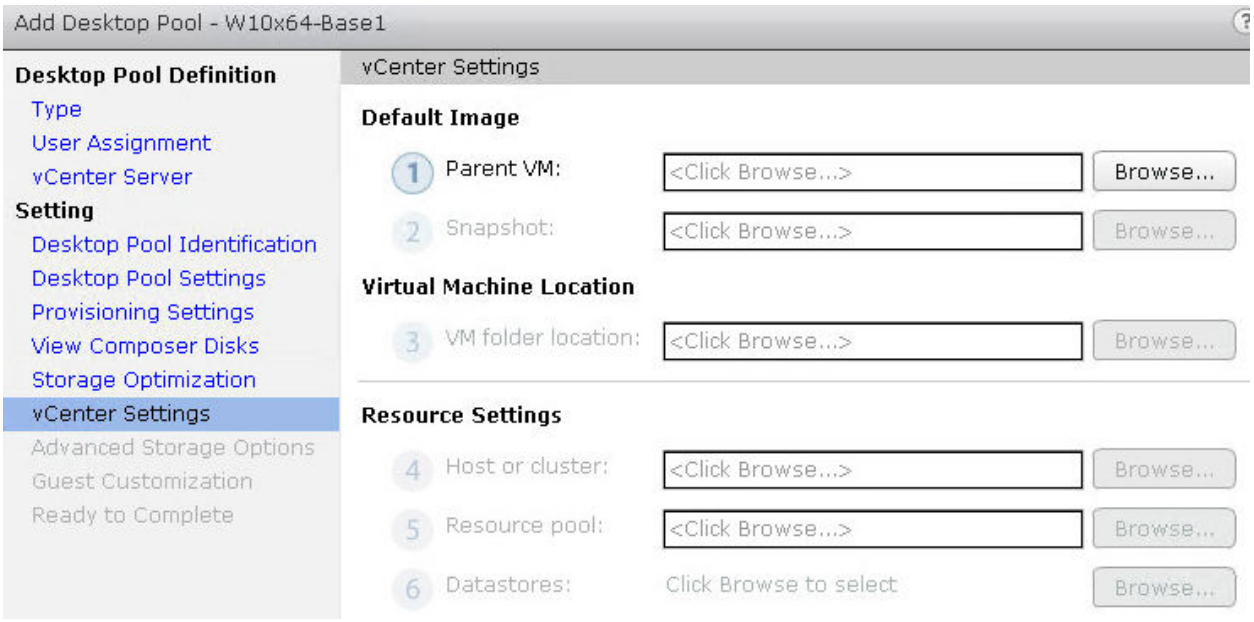

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Desktop Pool Identification
ID:
W10x64-Base1
Display name:
Windows 10 LC Pool 1
Access group:
/
Description:

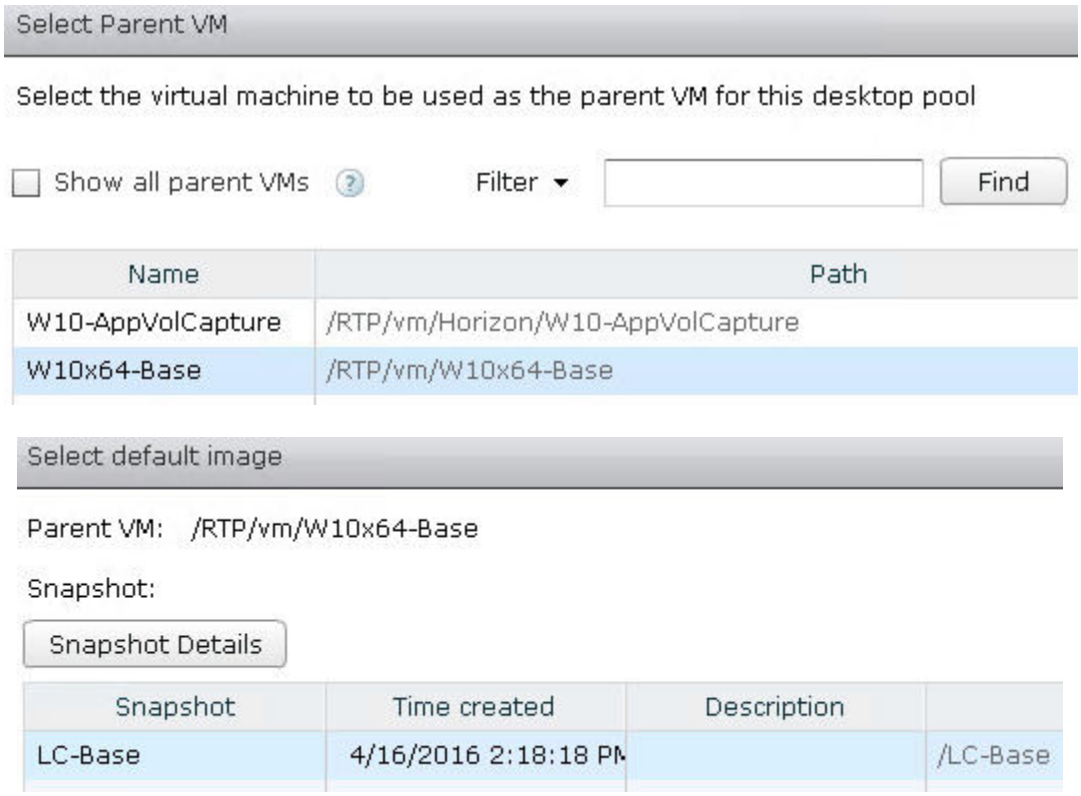

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Desktop Pool Settings
General
State:
Enabled
Connection Server restrictions:
None
Browse...
Remote Settings
Remote Machine Power Policy:
Take no power action
Automatically logoff after disconnect:
Never


Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Ready to Complete
Provisioning Settings
Basic
Enable provisioning
Stop provisioning on error
Virtual Machine Naming
Specify names manually
0 names entered
Enter names...
Start machines in maintenance mode
Unassigned machines kept powered on:
1
Use a naming pattern
Naming Pattern:
Win10x64{n}


Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Ready to Complete
View Composer Disks
Persistent Disk
Redirect Windows profile to a persistent disk
Disk size: 2048 MB (minimum 128 MB)
Drive letter: D
Do not redirect Windows profile
Disposable File Redirection
Redirect disposable files to a non-persistent disk
Disk size: 4096 MB (minimum 512 MB)
Drive letter: Auto
Do not redirect disposable files


Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Storage Optimization
Storage Policy Management
Use VMware Virtual SAN
Do not use VMware Virtual SAN
Select separate datastores for replica and OS disks
Virtual Volumes(VVOL) and fast NFS clones (VAAI) will be unavailable if the replica disks and OS disks are stored on separate datastores.


Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Ready to Complete
vCenter Settings
Default Image
1 Parent VM:
<Click Browse...>
Browse...
2 Snapshot:
<Click Browse...>
Browse...
Virtual Machine Location
3 VM folder location:
<Click Browse...>
Browse...
Resource Settings
4 Host or cluster:
<Click Browse...>
Browse...
5 Resource pool:
<Click Browse...>
Browse...
6 Datastores:
Click Browse to select
Browse...


Select Parent VM
Select the virtual machine to be used as the parent VM for this desktop pool
Show all parent VMs
Filter
Find
Name
Path
W10-AppVolCapture
/RTP/vm/Horizon/W10-AppVolCapture
W10x64-Base
/RTP/vm/W10x64-Base
Select default image
Parent VM: /RTP/vm/W10x64-Base
Snapshot:
Snapshot Details
Snapshot
Time created
Description
LC-Base
4/16/2016 2:18:18 PM
/LC-Base

VM Folder Location

Select the folder to store the VM

Show all folders

Host or Cluster

Select a host or a cluster on which to run the virtual machines created for this desktop pool.

Resource Pool

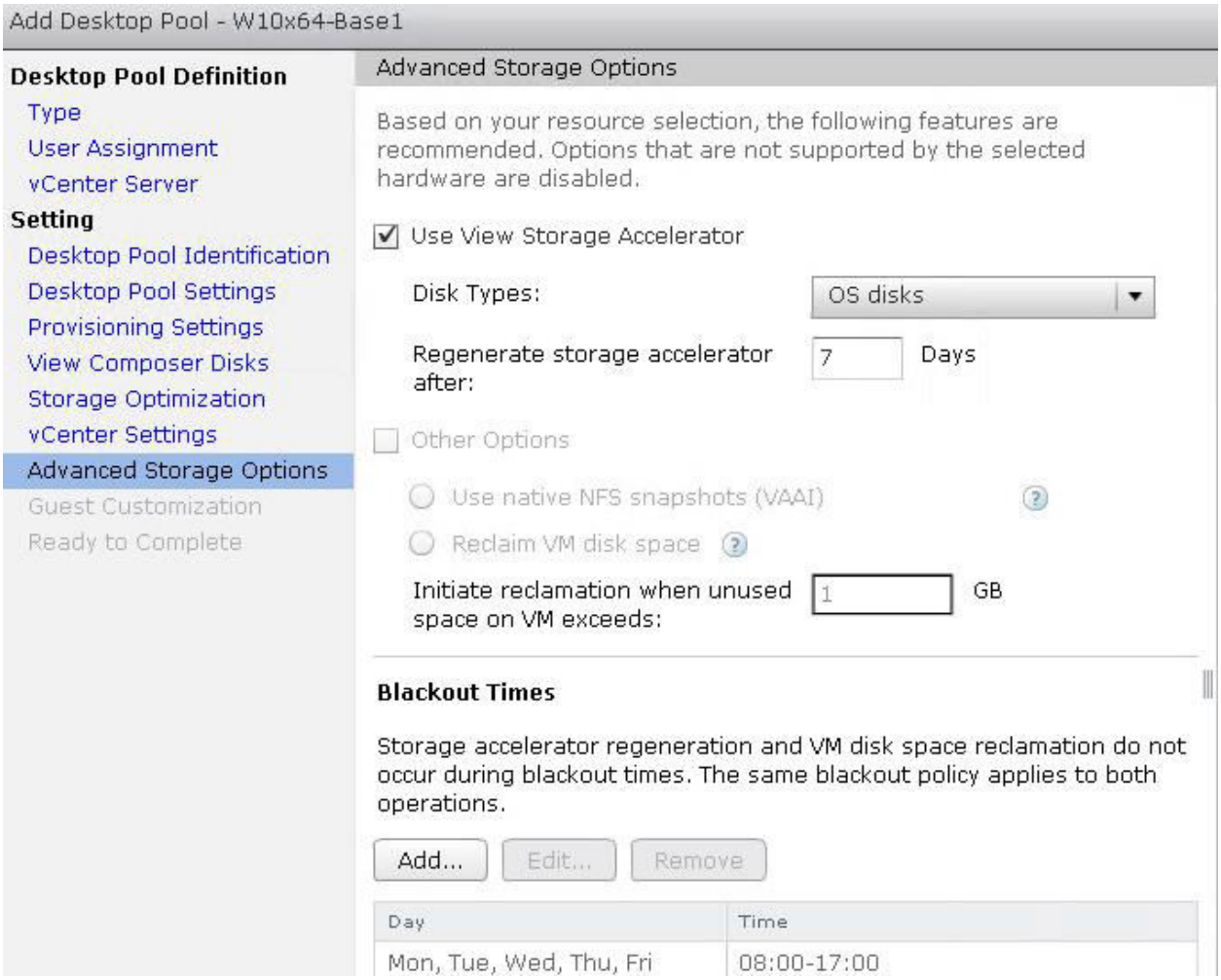
Select a resource pool to use for this desktop pool.

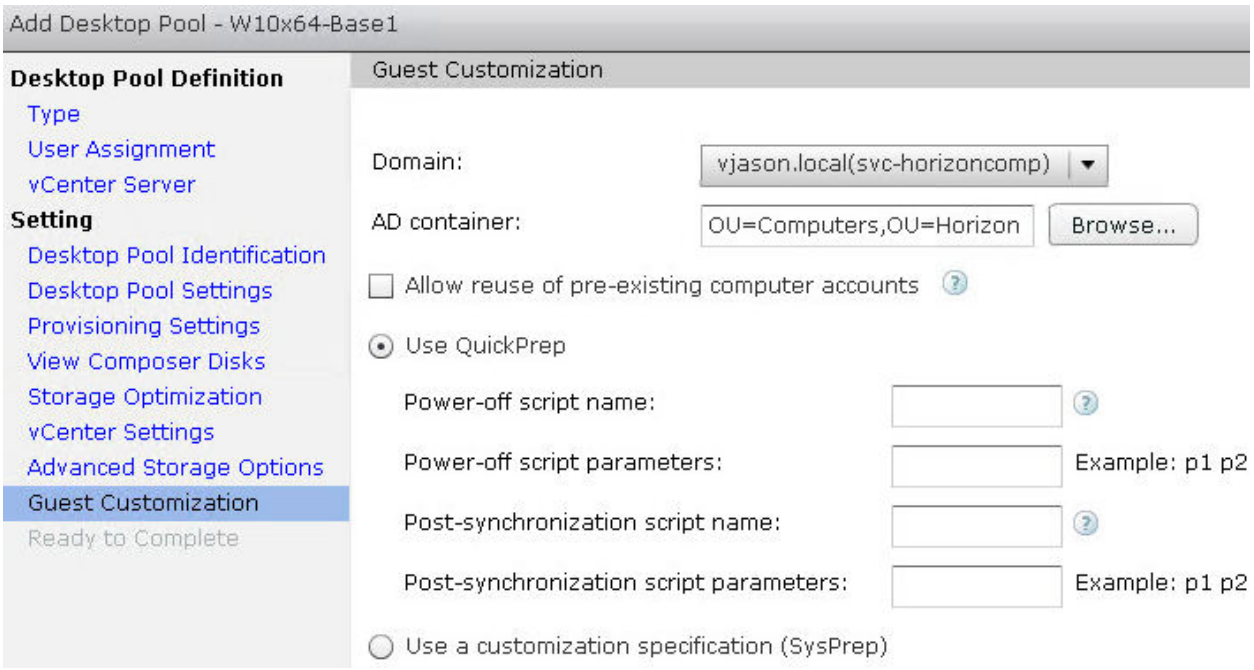
Select Linked Clone Datastores

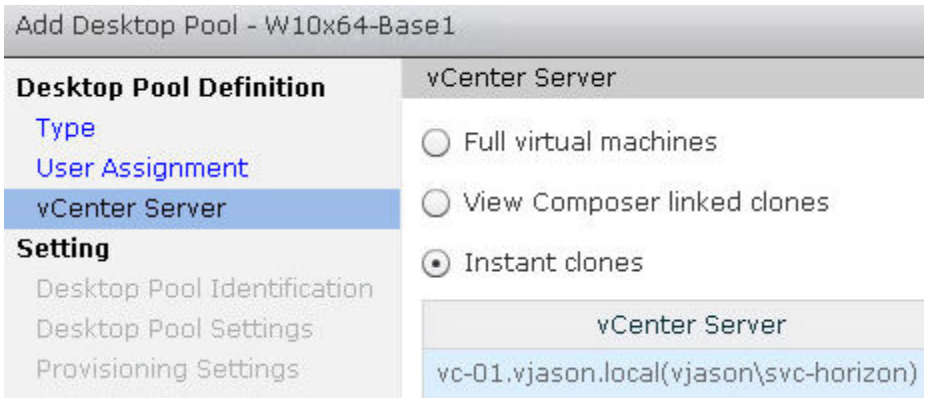
Select the linked clone datastores to use for this desktop pool. Only datastores that can be used by the selected host or cluster can be selected.

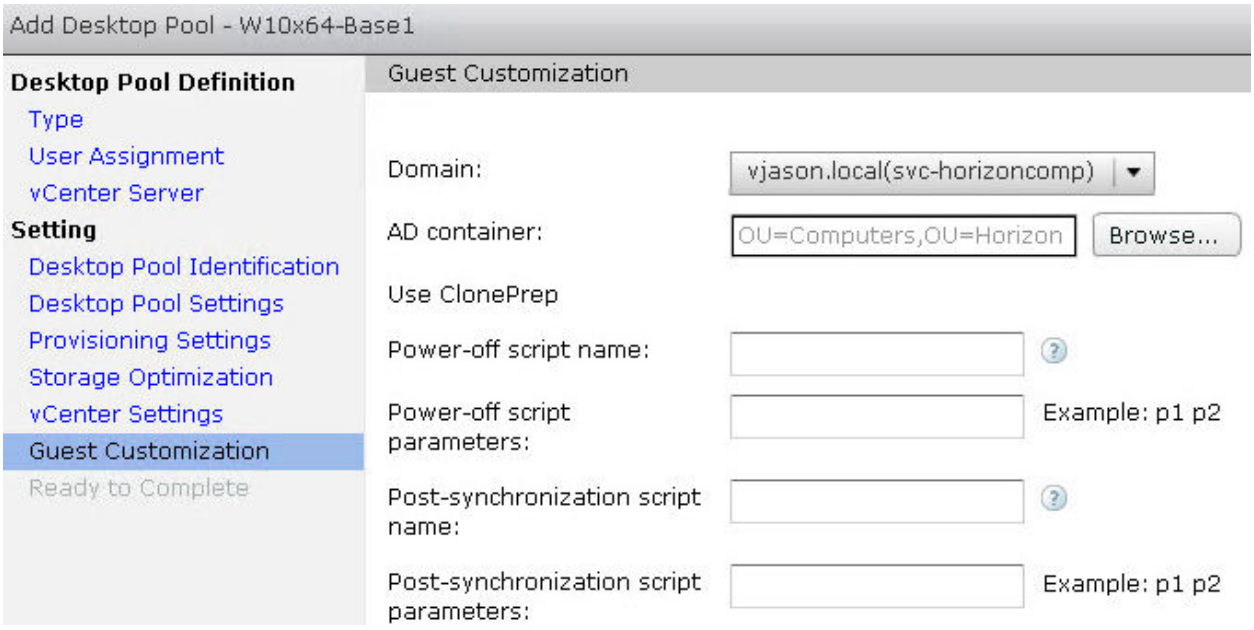
Show all datastores (including local datastores) Local datastore Shared datastore

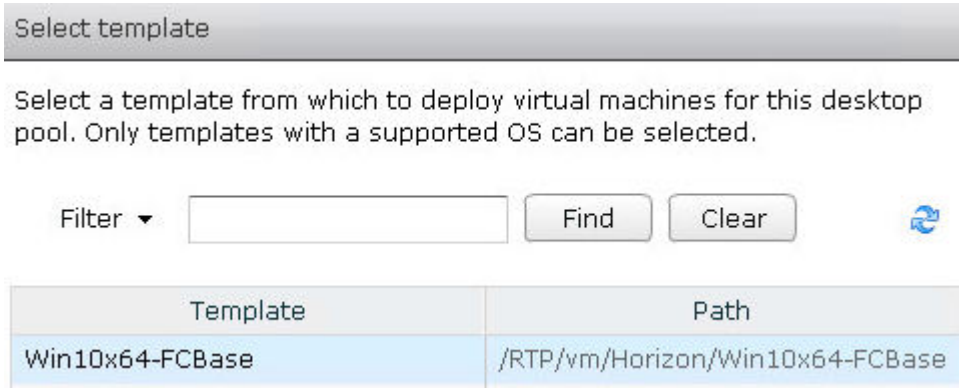
	Datastore	Capacity (GB)	Free (GB)	FS Type	Drive Type
☑	Desktop1-VSAN1	426.18	420.67	vsan	

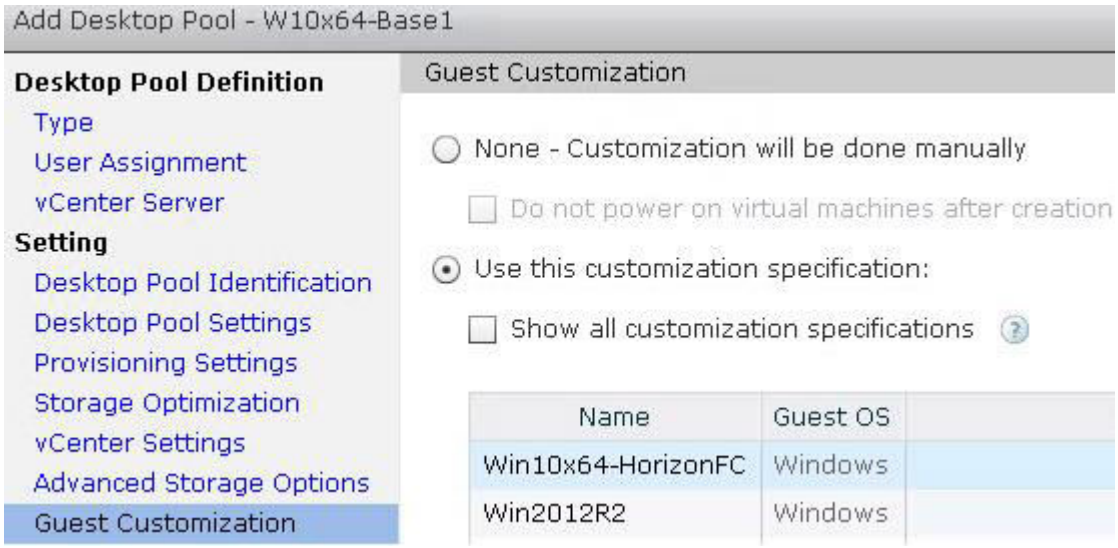

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Ready to Complete
Advanced Storage Options
Based on your resource selection, the following features are recommended. Options that are not supported by the selected hardware are disabled.
Use View Storage Accelerator
Disk Types:
OS disks
Regenerate storage accelerator after:
7
Days
Other Options
Use native NFS snapshots (VAAI)
Reclaim VM disk space
Initiate reclamation when unused space on VM exceeds:
1
GB
Blackout Times
Storage accelerator regeneration and VM disk space reclamation do not occur during blackout times. The same blackout policy applies to both operations.
Add...
Edit...
Remove
Day
Time
Mon, Tue, Wed, Thu, Fri
08:00-17:00

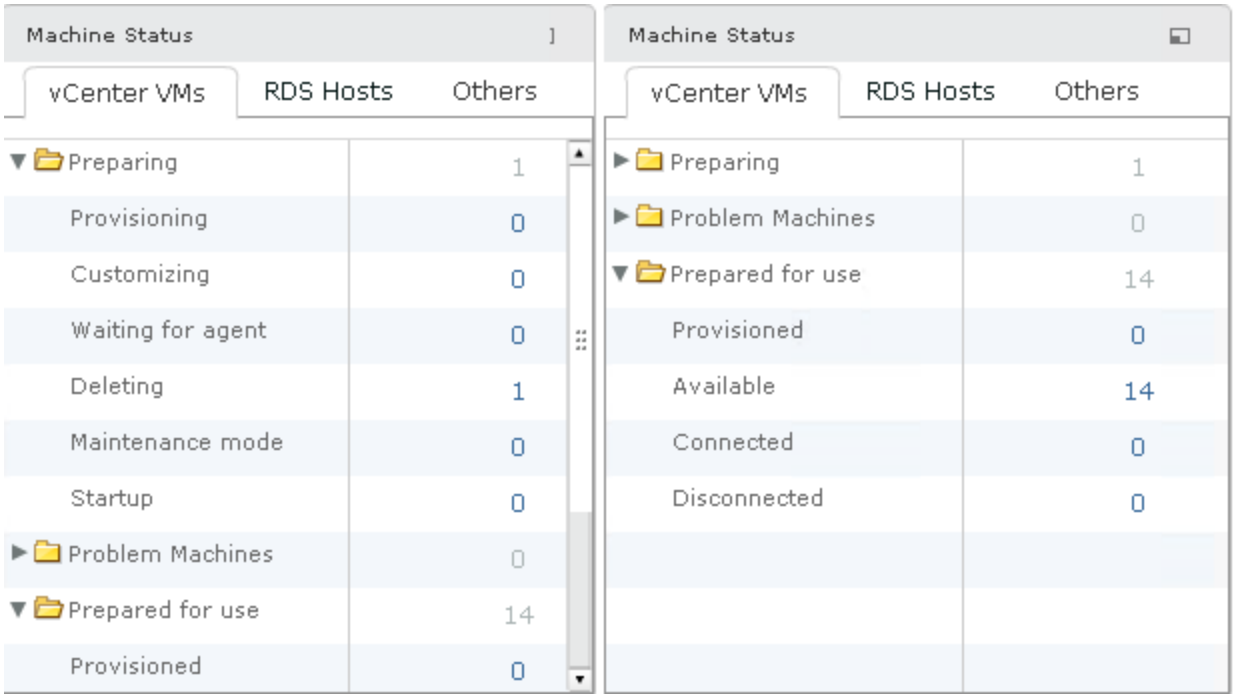

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
View Composer Disks
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Ready to Complete
Guest Customization
Domain:
vjason.local(svc-horizoncomp)
AD container:
OU=Computers,OU=Horizon
Browse...
Allow reuse of pre-existing computer accounts
Use QuickPrep
Power-off script name:
Power-off script parameters:
Example: p1 p2
Post-synchronization script name:
Post-synchronization script parameters:
Example: p1 p2
Use a customization specification (SysPrep)

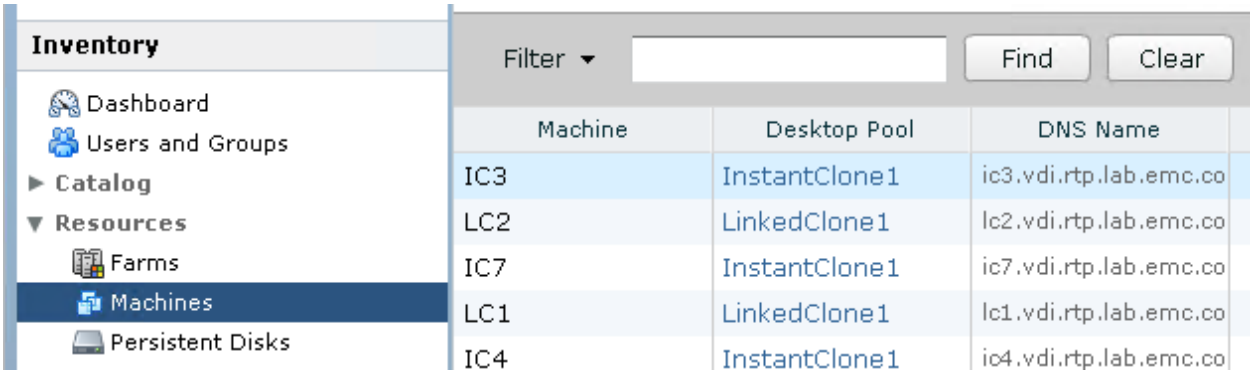

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
vCenter Server
Full virtual machines
View Composer linked clones
Instant clones
vCenter Server
vc-01.vjason.local(vjason\svc-horizon)

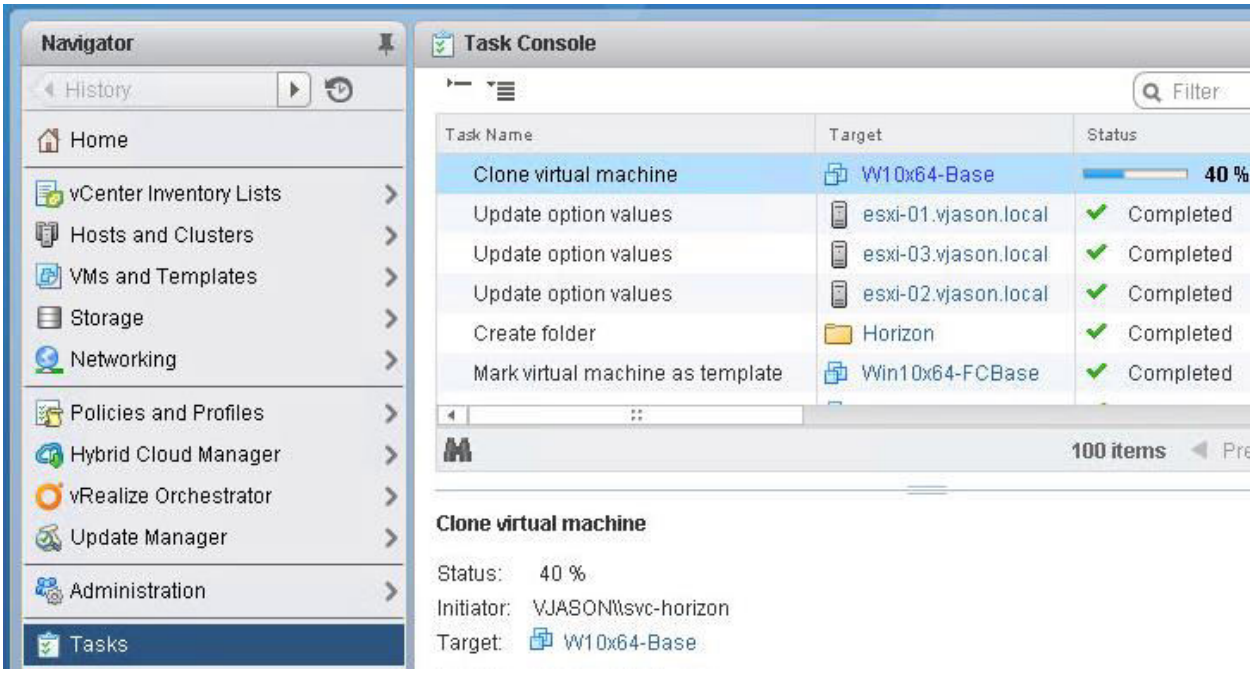

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
Storage Optimization
vCenter Settings
Guest Customization
Ready to Complete
Guest Customization
Domain:
vjason.local(svc-horizoncomp)
AD container:
OU=Computers,OU=Horizon
Browse...
Use ClonePrep
Power-off script name:
Power-off script parameters:
Example: p1 p2
Post-synchronization script name:
Post-synchronization script parameters:
Example: p1 p2

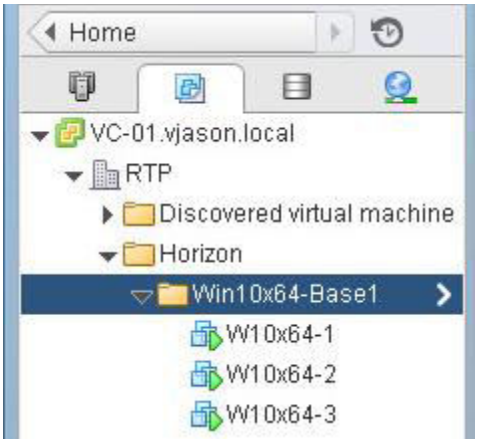

Select template
Select a template from which to deploy virtual machines for this desktop pool. Only templates with a supported OS can be selected.
Filter
Find
Clear
Template
Path
Win10x64-FCBase
/RTP/vm/Horizon/Win10x64-FCBase

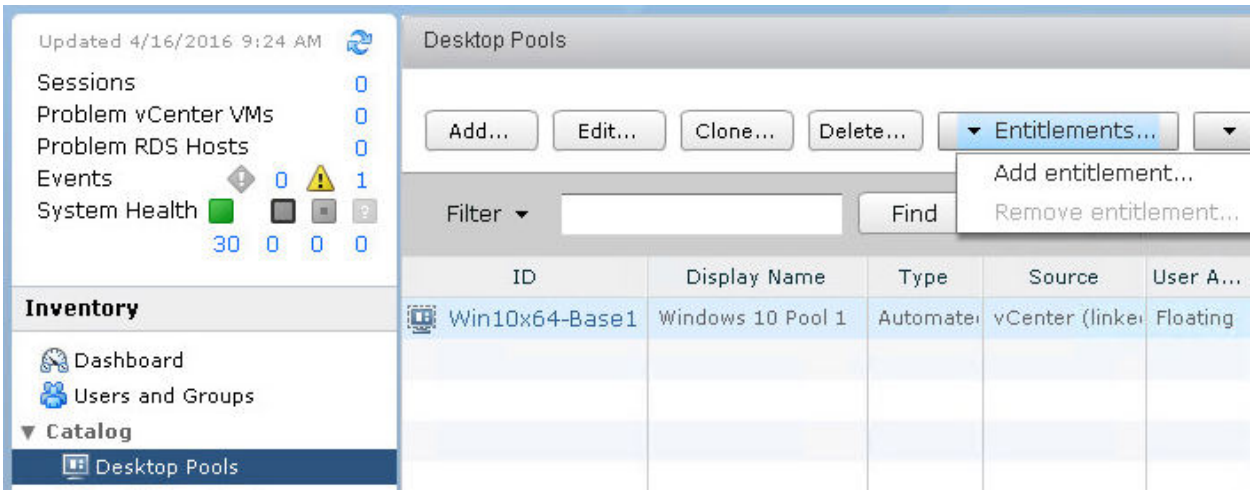

Add Desktop Pool - W10x64-Base1
Desktop Pool Definition
Type
User Assignment
vCenter Server
Setting
Desktop Pool Identification
Desktop Pool Settings
Provisioning Settings
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Guest Customization
None - Customization will be done manually
Do not power on virtual machines after creation
Use this customization specification:
Show all customization specifications
Name
Guest OS
Win10x64-HorizonFC
Windows
Win2012R2
Windows

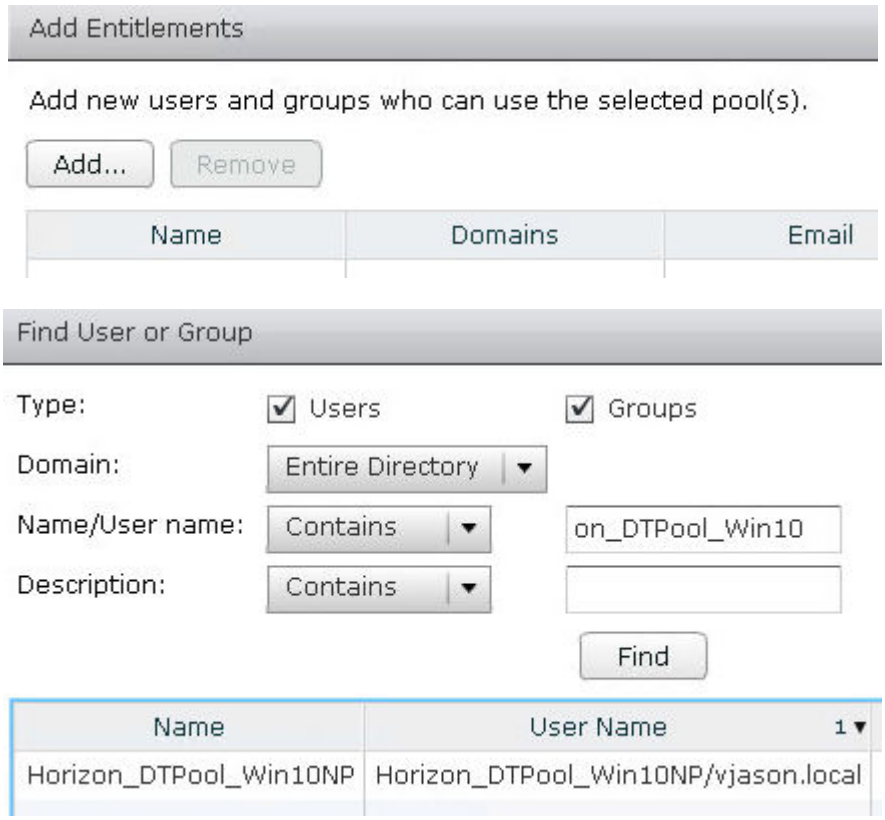

Machine Status
vCenter VMs
RDS Hosts
Others
Preparing 1
Provisioning 0
Customizing 0
Waiting for agent 0
Deleting 1
Maintenance mode 0
Startup 0
Problem Machines 0
Prepared for use 14
Provisioned 0
Machine Status
vCenter VMs
RDS Hosts
Others
Preparing 1
Problem Machines 0
Prepared for use 14
Provisioned 0
Available 14
Connected 0
Disconnected 0

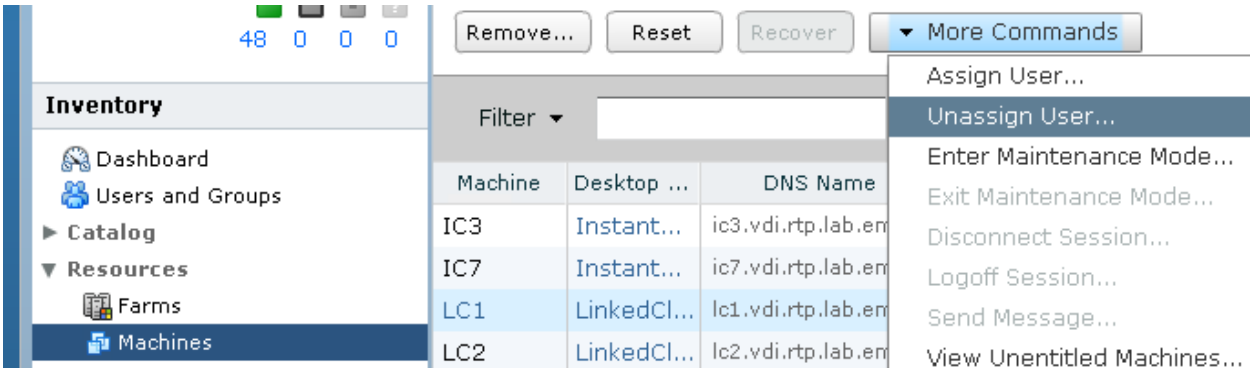

Inventory
Dashboard
Users and Groups
Catalog
Resources
Farms
Machines
Persistent Disks
Filter
Find
Clear
Machine
Desktop Pool
DNS Name
IC3
InstantClone1
ic3.vdi.rtp.lab.emc.co
LC2
LinkedClone1
lc2.vdi.rtp.lab.emc.co
IC7
InstantClone1
ic7.vdi.rtp.lab.emc.co
LC1
LinkedClone1
lc1.vdi.rtp.lab.emc.co
IC4
InstantClone1
ic4.vdi.rtp.lab.emc.co


Navigator
History
Home
vCenter Inventory Lists
Hosts and Clusters
VMs and Templates
Storage
Networking
Policies and Profiles
Hybrid Cloud Manager
vRealize Orchestrator
Update Manager
Administration
Tasks
Task Console
Filter
Task Name
Target
Status
Clone virtual machine
W10x64-Base
40 %
Update option values
esxi-01.vjason.local
Completed
Update option values
esxi-03.vjason.local
Completed
Update option values
esxi-02.vjason.local
Completed
Create folder
Horizon
Completed
Mark virtual machine as template
Win10x64-FCBase
Completed
100 items
Clone virtual machine
Status: 40 %
Initiator: VJASON\\svc-horizon
Target: W10x64-Base

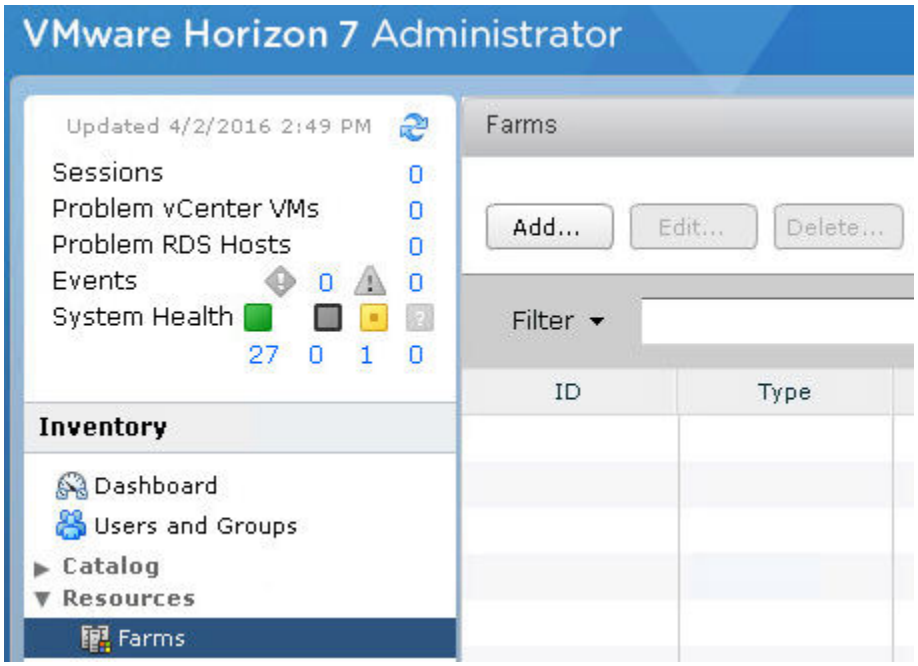

Home
VC-01.vjason.local
RTP
Discovered virtual machine
Horizon
Win10x64-Base1
W10x64-1
W10x64-2
W10x64-3

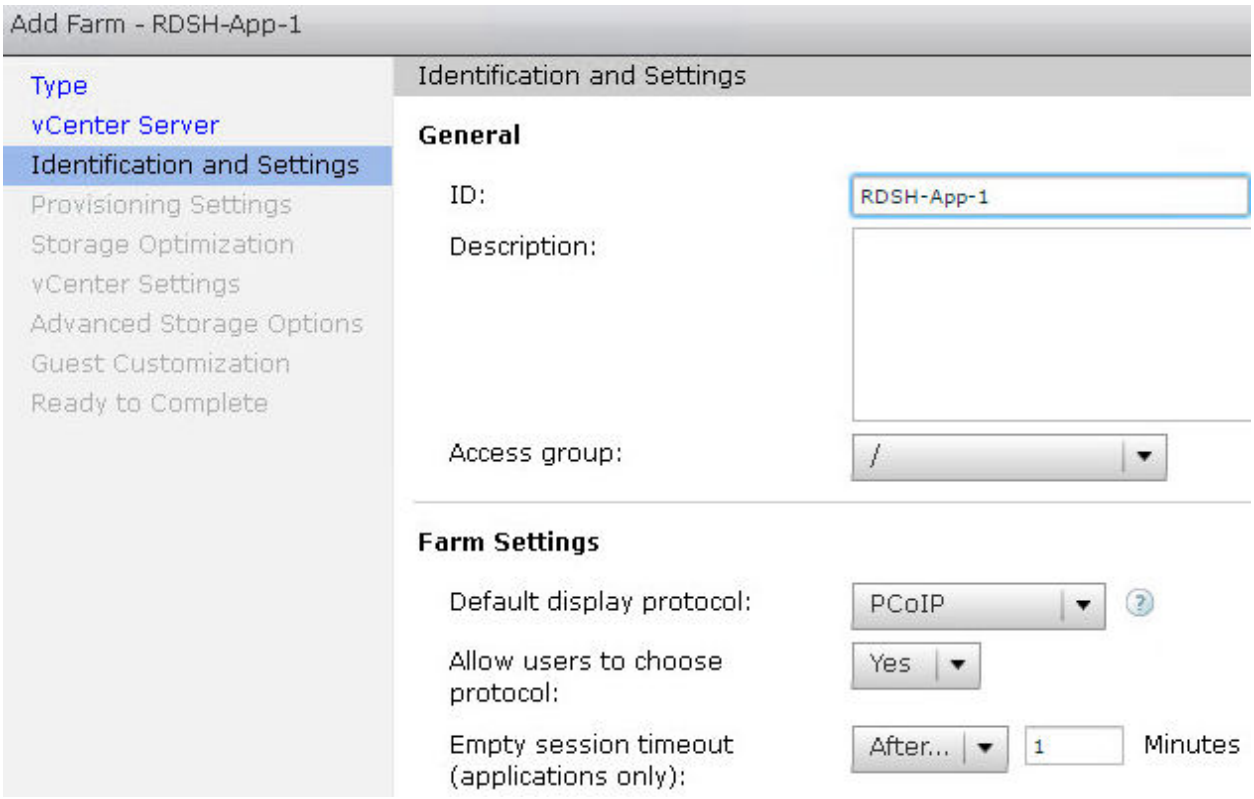

Updated 4/16/2016 9:24 AM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 1
System Health
30 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Desktop Pools
Desktop Pools
Add...
Edit...
Clone...
Delete...
Entitlements...
Add entitlement...
Remove entitlement...
Filter
Find
ID
Display Name
Type
Source
User A...
Win10x64-Base1
Windows 10 Pool 1
Automate
vCenter (linke
Floating

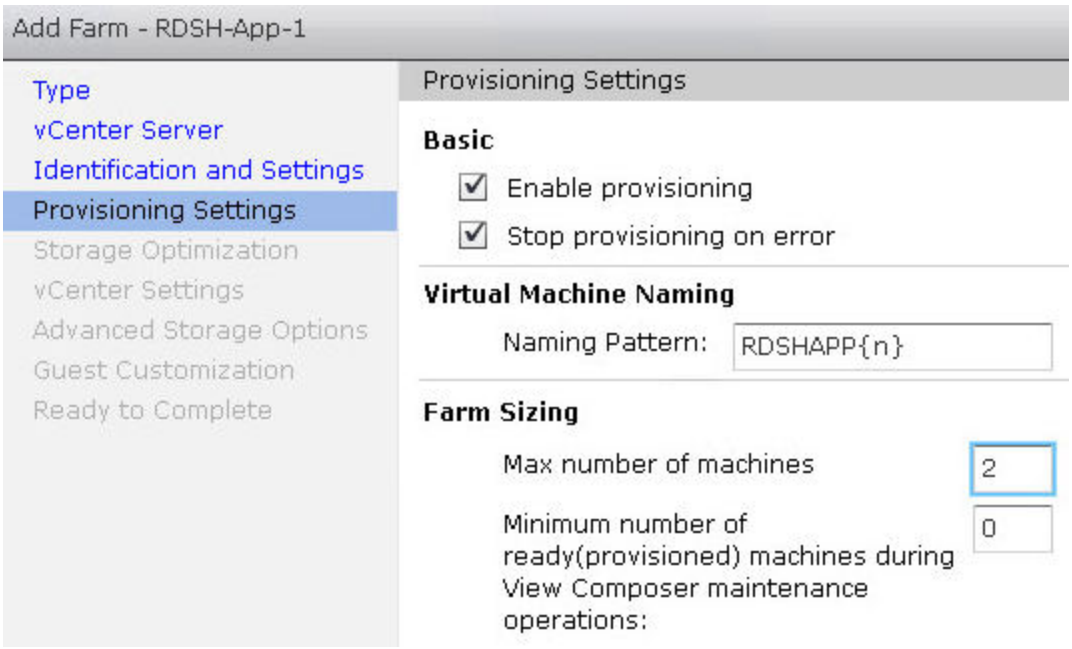

Add Entitlements
Add new users and groups who can use the selected pool(s).
Add...
Remove
Name
Domains
Email
Find User or Group
Type:
Users
Groups
Domain:
Entire Directory
Name/User name:
Contains
on_DTPool_Win10
Description:
Contains
Find
Name
User Name
Horizon_DTPool_Win10NP
Horizon_DTPool_Win10NP/vjason.local

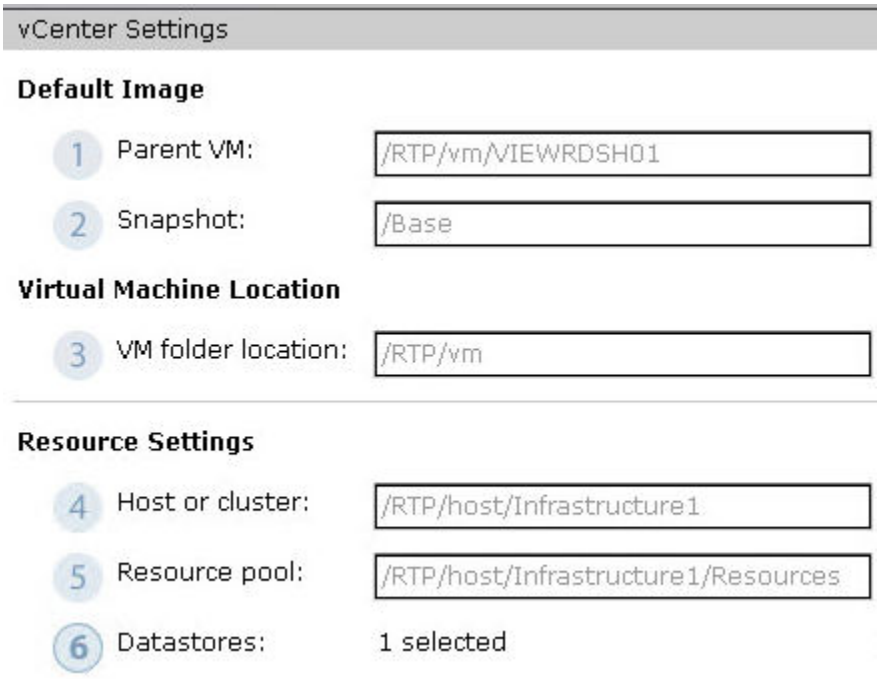

48 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Farms
Machines
Remove...
Reset
Recover
More Commands
Filter
Machine
Desktop ...
DNS Name
IC3
Instant...
IC7
Instant...
LC1
LinkedCl...
LC2
LinkedCl...
Assign User...
Unassign User...
Enter Maintenance Mode...
Exit Maintenance Mode...
Disconnect Session...
Logoff Session...
Send Message...
View Unentitled Machines...

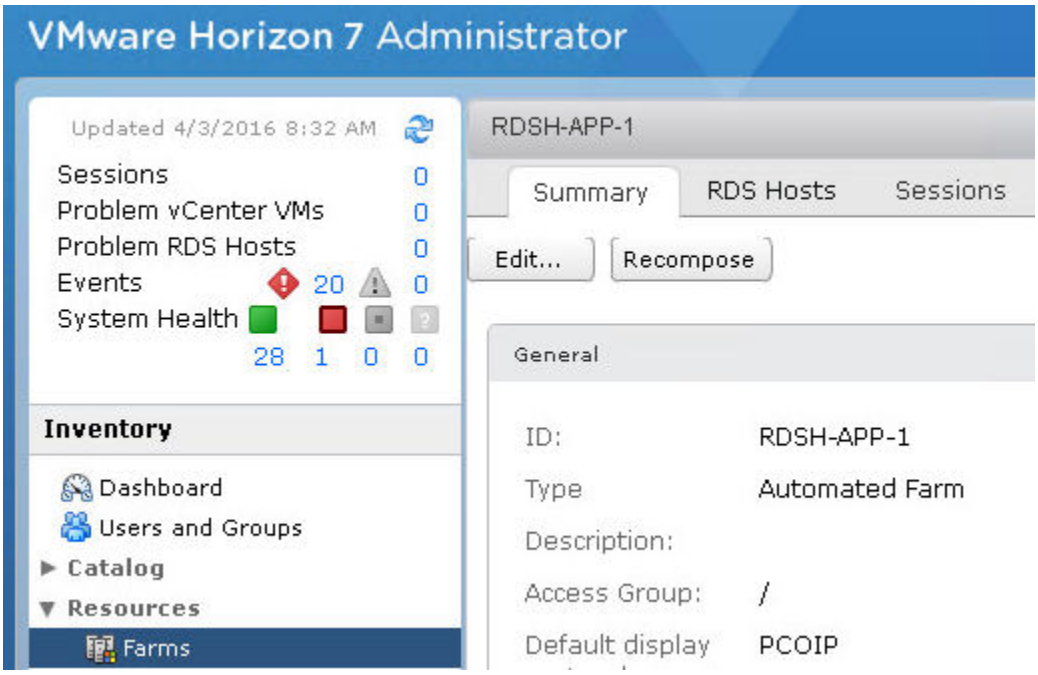
Chapter 11: Implementing Horizon Application Pools

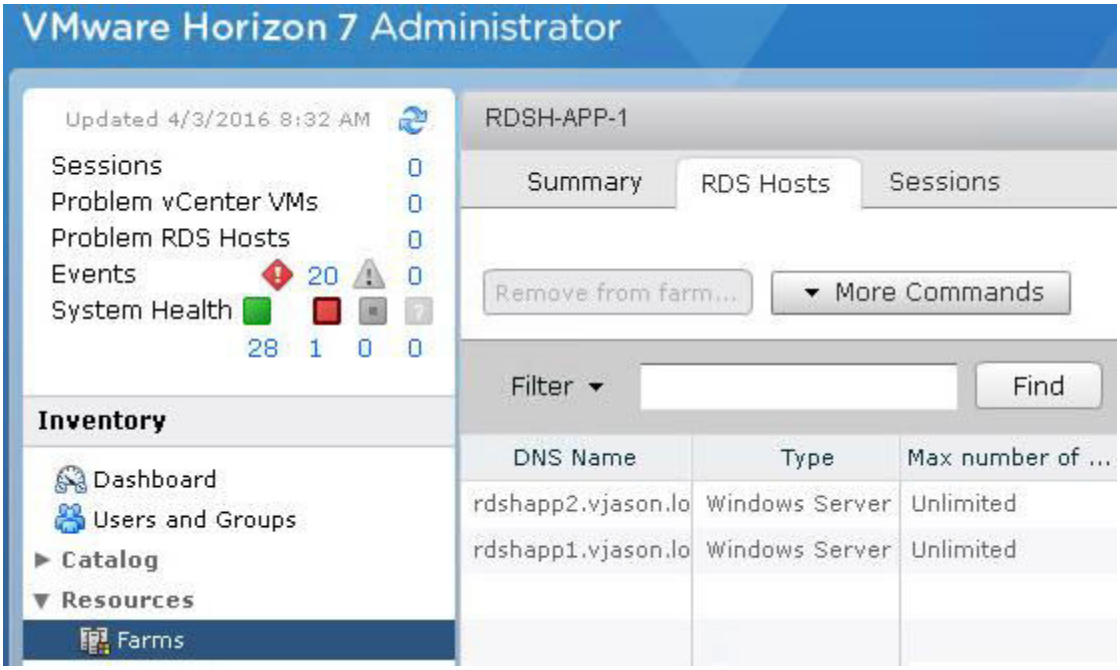




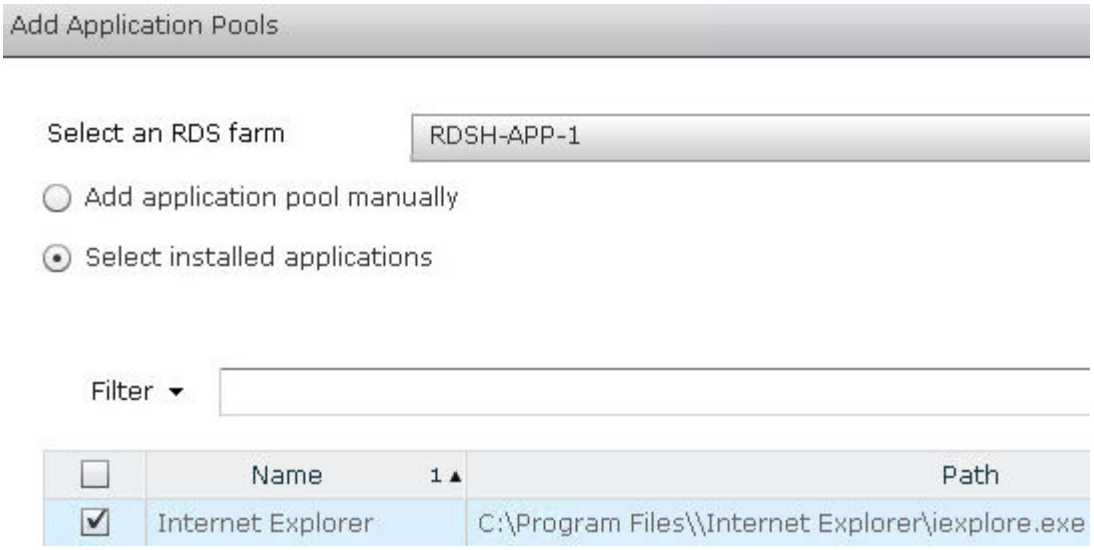

Add Farm - RDSH-App-1
Type
vCenter Server
Identification and Settings
Provisioning Settings
Storage Optimization
vCenter Settings
Advanced Storage Options
Guest Customization
Ready to Complete
Provisioning Settings
Basic
Enable provisioning
Stop provisioning on error
Virtual Machine Naming
Naming Pattern:
RDSHAPP{n}
Farm Sizing
Max number of machines
2
Minimum number of ready(provisioned) machines during View Composer maintenance operations:
0

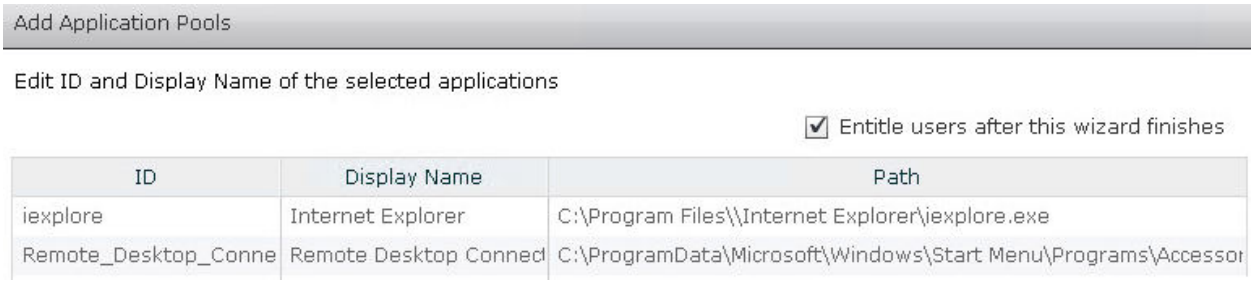

vCenter Settings
Default Image
1
Parent VM:
/RTP/vm/VIEWRDSH01
2
Snapshot:
/Base
Virtual Machine Location
3
VM folder location:
/RTP/vm
Resource Settings
4
Host or cluster:
/RTP/host/Infrastructure1
5
Resource pool:
/RTP/host/Infrastructure1/Resources
6
Datastores:
1 selected

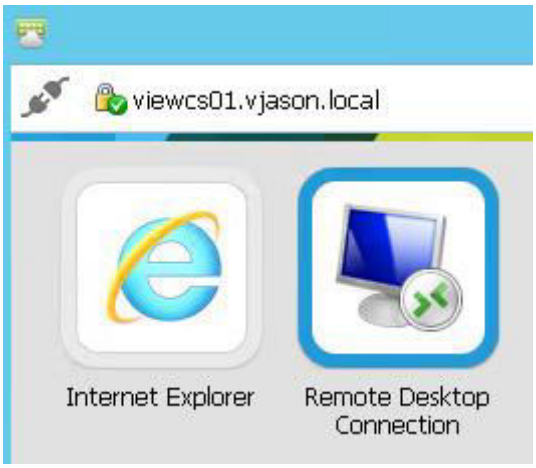

VMware Horizon 7 Administrator
Updated 4/3/2016 8:32 AM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 20 0
System Health
28 1 0 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Farms
RDSH-APP-1
Summary
RDS Hosts
Sessions
Edit...
Recompose
General
ID: RDSH-APP-1
Type Automated Farm
Description:
Access Group: /
Default display PCOIP


VMware Horizon 7 Administrator
Updated 4/3/2016 8:32 AM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 20 0
System Health
28 1 0 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Farms
RDSH-APP-1
Summary
RDS Hosts
Sessions
Remove from farm...
More Commands
Filter
Find
DNS Name
Type
Max number of ...
rdshapp2.vjason.lo
Windows Server
Unlimited
rdshapp1.vjason.lo
Windows Server
Unlimited

VMware Horizon 7 Administrator
Updated 4/3/2016 12:10 PM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 20 0
System Health
29 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Desktop Pools
Application Pools
Application Pools
Add...
Filter
ID


Add Application Pools
Select an RDS farm
RDSH-APP-1
Add application pool manually
Select installed applications
Filter
Name
Path
Internet Explorer
C:\Program Files\\Internet Explorer\iexplore.exe


Add Application Pools
Edit ID and Display Name of the selected applications
Entitle users after this wizard finishes
ID
Display Name
Path
iexplore
Internet Explorer
C:\Program Files\\Internet Explorer\iexplore.exe
Remote_Desktop_Conne
Remote Desktop Connecl
C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Accesso



Select installation type

DESTINATION SERVER
No servers are selected.

- Before You Begin
- Installation Type
- Deployment Type
- Deployment Scenario
- Role Services
- RD Connection Broker

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

○ **Role-based or feature-based installation**
Configure a single server by adding roles, role services, and features.

◉ **Remote Desktop Services installation**
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

Select a server

DESTINATION SERVER
Quick Start selected

- Before You Begin
- Installation Type
- Deployment Type
- Deployment Scenario
- Server Selection
- Confirmation
- Completion

The Quick Start will install the RD Connection Broker, RD Web Access, and RD Session Host role services on the same server.

Server Pool

Filter:

Name	IP Address	Operating
RDSHBASE.vjason.local	172.16.100.204	

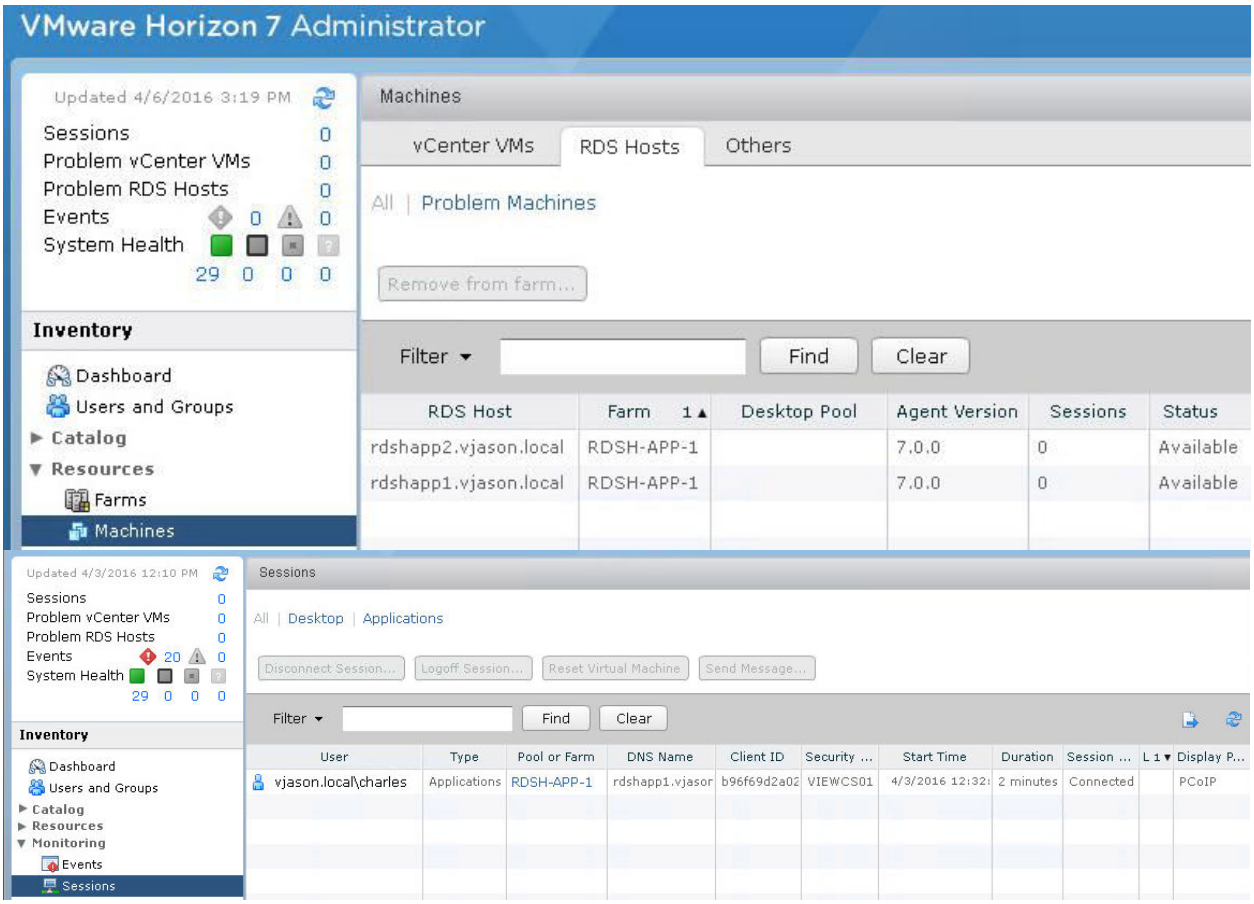
Selected

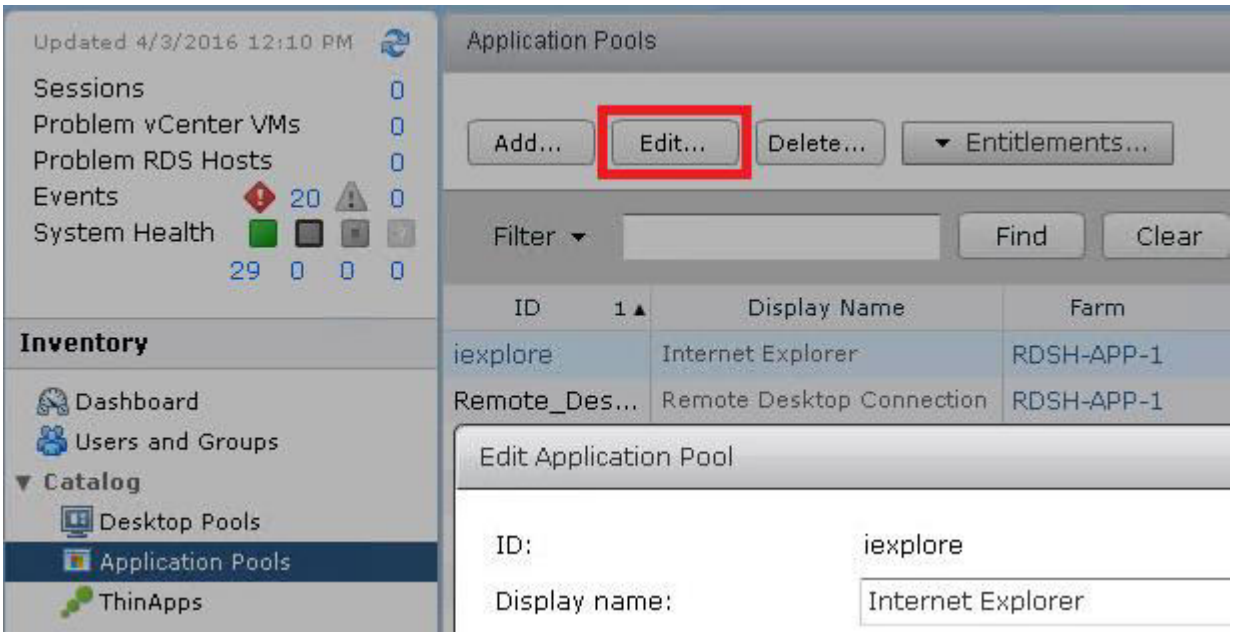
Computer

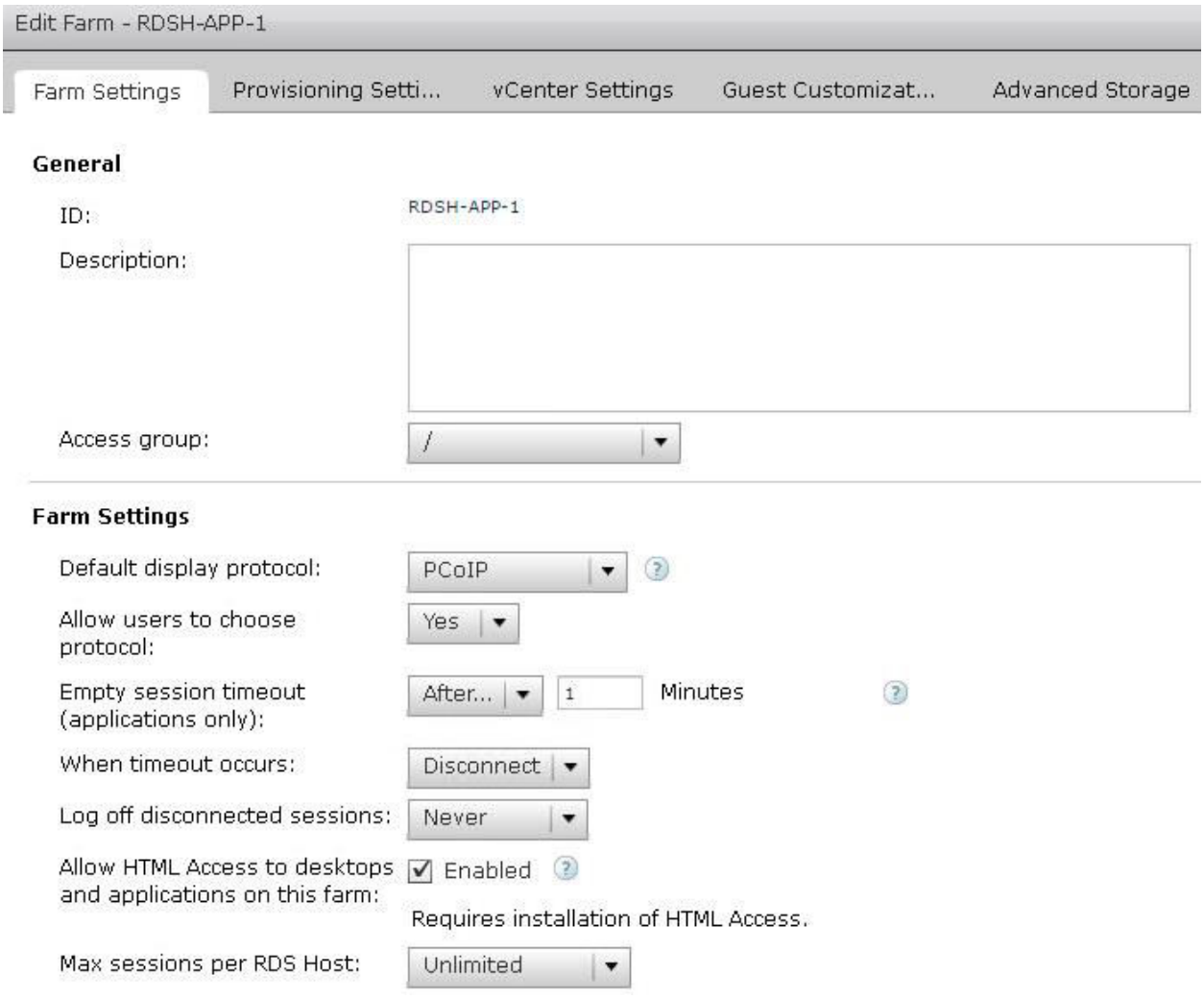
VJASON.LOCAL (1)

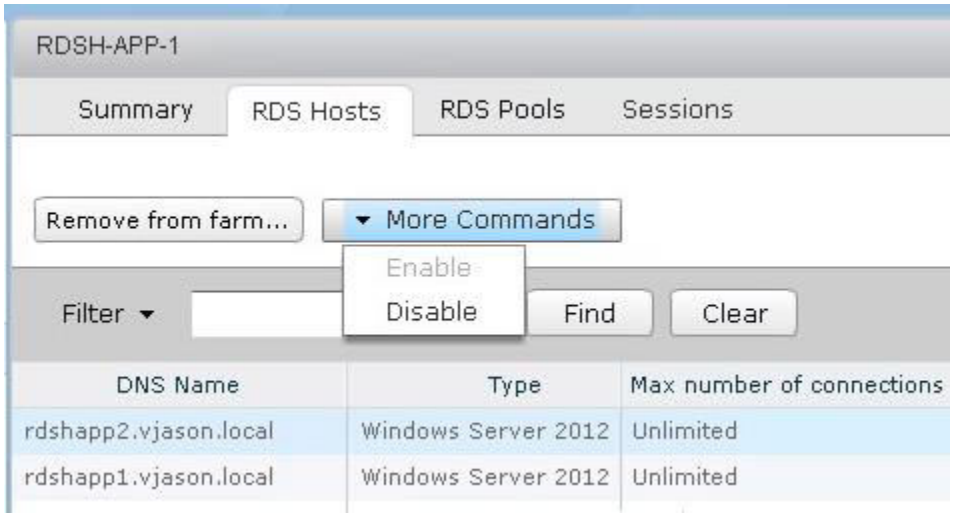
RDSHBASE

Setting	State
Use the specified Remote Desktop license servers	Not configured
Hide notifications about RD Licensing problems that affect t...	Not configured
Set the Remote Desktop licensing mode	Not configured


VMware Horizon 7 Administrator
Updated 4/6/2016 3:19 PM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 0 0
System Health
29 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Farms
Machines
Machines
vCenter VMs
RDS Hosts
Others
All | Problem Machines
Remove from farm...
Filter
Find
Clear
RDS Host
Farm
Desktop Pool
Agent Version
Sessions
Status
rdshapp2.vjason.local
RDSH-APP-1
7.0.0
0
Available
rdshapp1.vjason.local
RDSH-APP-1
7.0.0
0
Available
Updated 4/3/2016 12:10 PM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 20 0
System Health
29 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Resources
Monitoring
Events
Sessions
Sessions
All | Desktop | Applications
Disconnect Session...
Logoff Session...
Reset Virtual Machine
Send Message...
Filter
Find
Clear
User
Type
Pool or Farm
DNS Name
Client ID
Security ...
Start Time
Duration
Session ...
Display P...
vjason.local\charles
Applications
RDSH-APP-1
rdshapp1.vjasor
b96f69d2a02
VIEWCS01
4/3/2016 12:32:
2 minutes
Connected
PCoIP

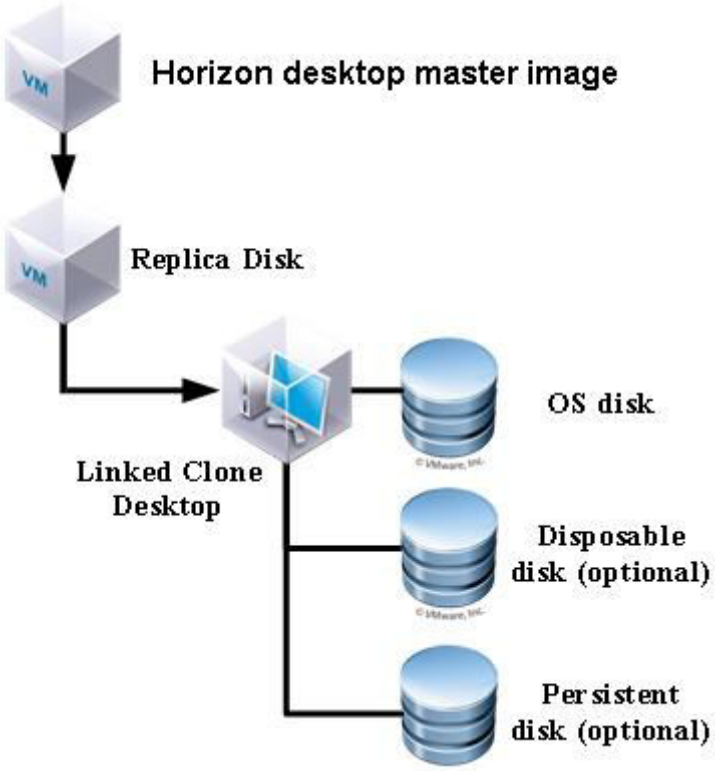

Updated 4/3/2016 12:10 PM
Sessions 0
Problem vCenter VMs 0
Problem RDS Hosts 0
Events 20 0
System Health
29 0 0 0
Inventory
Dashboard
Users and Groups
Catalog
Desktop Pools
Application Pools
ThinApps
Application Pools
Add...
Edit...
Delete...
Entitlements...
Filter
Find
Clear
ID
Display Name
Farm
iexplore
Internet Explorer
RDSH-APP-1
Remote_Des...
Remote Desktop Connection
RDSH-APP-1
Edit Application Pool
ID:
iexplore
Display name:
Internet Explorer

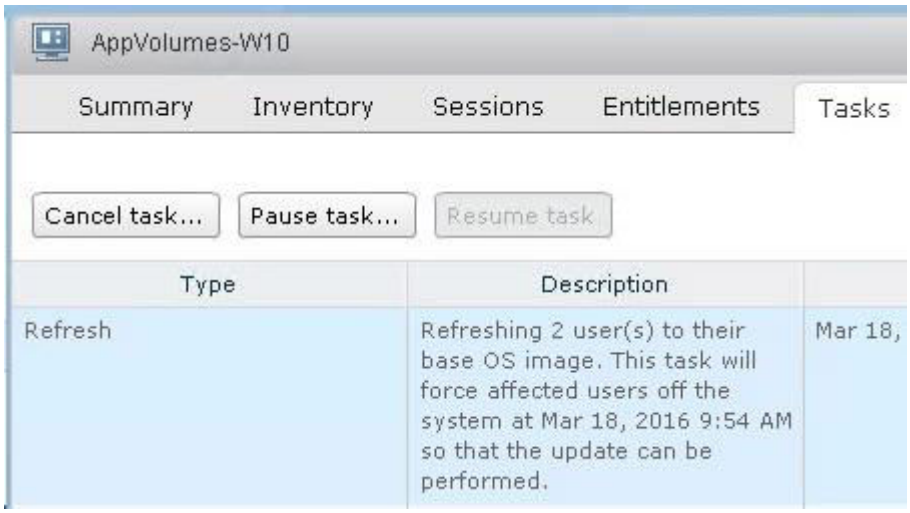

Edit Farm - RDSH-APP-1
Farm Settings
Provisioning Setti...
vCenter Settings
Guest Customizat...
Advanced Storage
General
ID:
RDSH-APP-1
Description:
Access group:
/
Farm Settings
Default display protocol:
PCoIP
Allow users to choose protocol:
Yes
Empty session timeout (applications only):
After...
1
Minutes
When timeout occurs:
Disconnect
Log off disconnected sessions:
Never
Allow HTML Access to desktops and applications on this farm:
Enabled
Requires installation of HTML Access.
Max sessions per RDS Host:
Unlimited

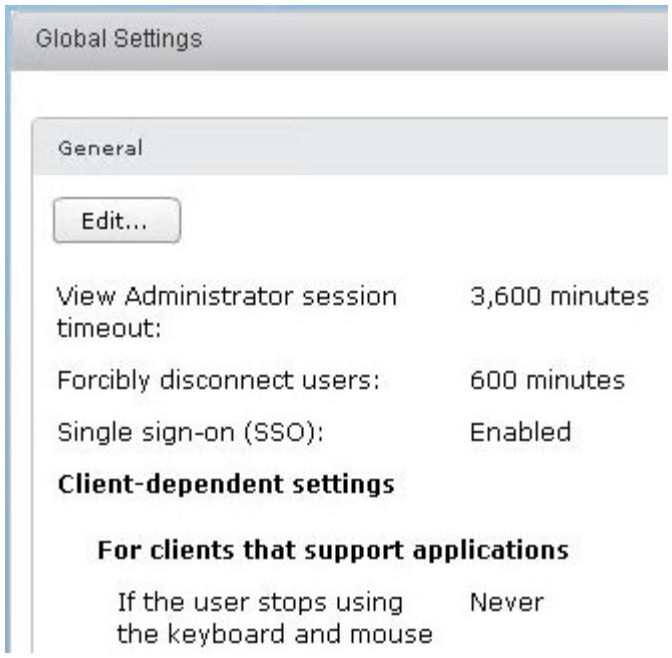

RDSH-APP-1
Summary
RDS Hosts
RDS Pools
Sessions
Remove from farm...
More Commands
Enable
Disable
Filter
Find
Clear
DNS Name
Type
Max number of connections
rdshapp2.vjason.local
Windows Server 2012
Unlimited
rdshapp1.vjason.local
Windows Server 2012
Unlimited

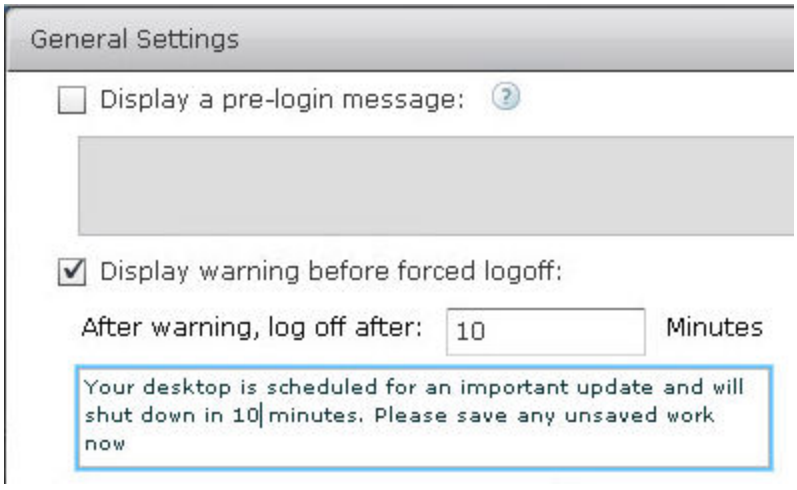
RDSH-APP-1
Summary
RDS Hosts
RDS Pools
Sessions
Edit...
Recompose
General

Chapter 12: Performing Horizon Desktop Pool Maintenance






Global Settings
General
Edit...
View Administrator session timeout:
3,600 minutes
Forcibly disconnect users:
600 minutes
Single sign-on (SSO):
Enabled
Client-dependent settings
For clients that support applications
If the user stops using the keyboard and mouse
Never

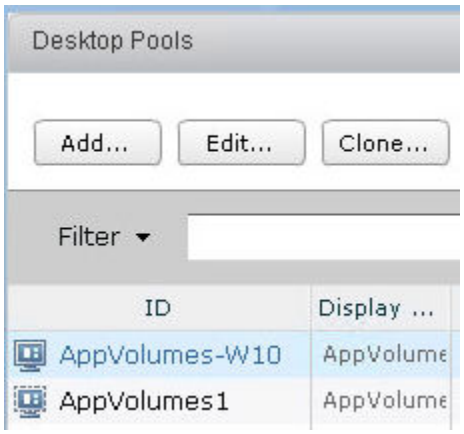

General Settings
Display a pre-login message:
Display warning before forced logoff:
After warning, log off after:
10
Minutes
Your desktop is scheduled for an important update and will shut down in 10 minutes. Please save any unsaved work now

Servers
vCenter Servers
Security Servers
Connection Servers
Add...
Edit...
Remove
Disable Provisioning...
Enable Provisioning...
vCenter Server
VM Disk Space Reclamation
View Storage Accelerator
vc-01.vjason.local(vjason\
vc-02.vjason.local(vjason\

Advanced Settings

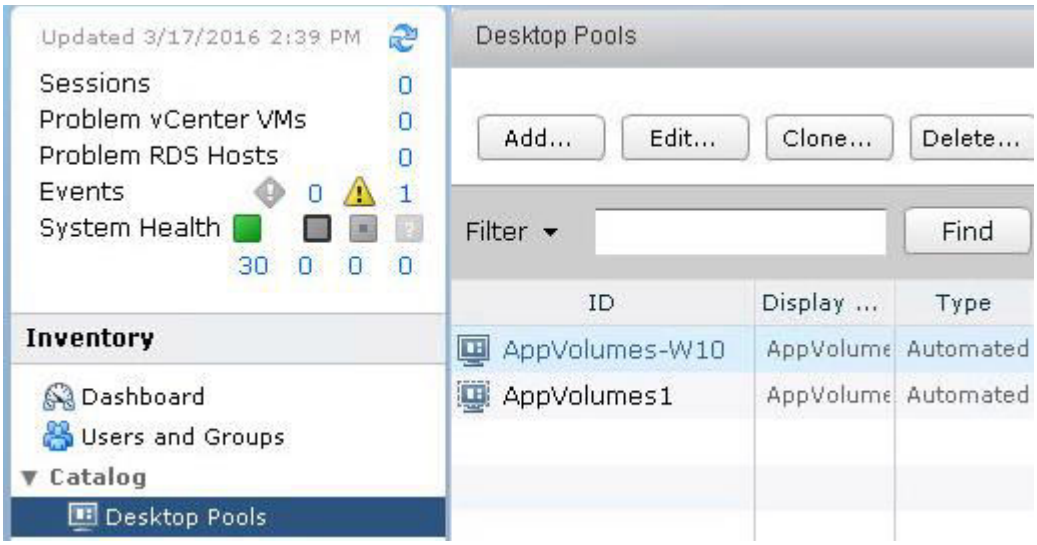
Specify the concurrent operation limits.

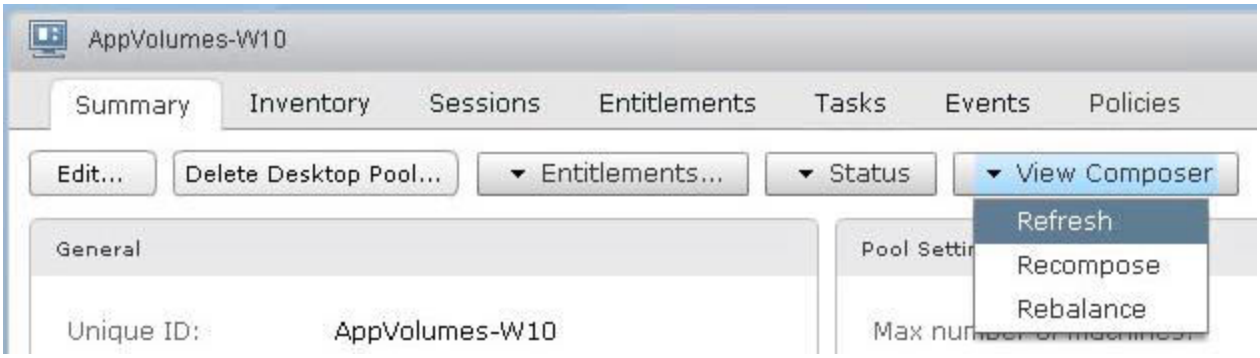
Max concurrent vCenter provisioning operations:	20
Max concurrent power operations:	50
Max concurrent View Composer maintenance operations:	12
Max concurrent View Composer provisioning operations:	8



6 Datastores: 1 selected Browse...

	Datastore	Capacity (GB)	Free (GB)	FS Type	Drive Typ	Machine	Storage Overcommit
☑	RTP1:Infra	2,520.94	2,078.51	NFS		2	Conservative





Refresh

Scheduling

Specify when you want this task to start

Start at: 05/16/2016 9 : 16 Web browser local time

- (•) Force users to log off

  Users will be forced to log off when the system is ready to operate on their virtual machines. Before being forcibly logged off, users may have a grace period in which to save their work (Global Settings).

- ( ) Wait for users to log off

  Wait for connected users to disconnect before the task starts. The task starts immediately on machines without active sessions.

- [x] Stop at first error

The warning and grace period can be edited in global settings:

- [x] Display warning before forced logoff:

Log off time: 5 minutes

Log off message: Your desktop is scheduled for an

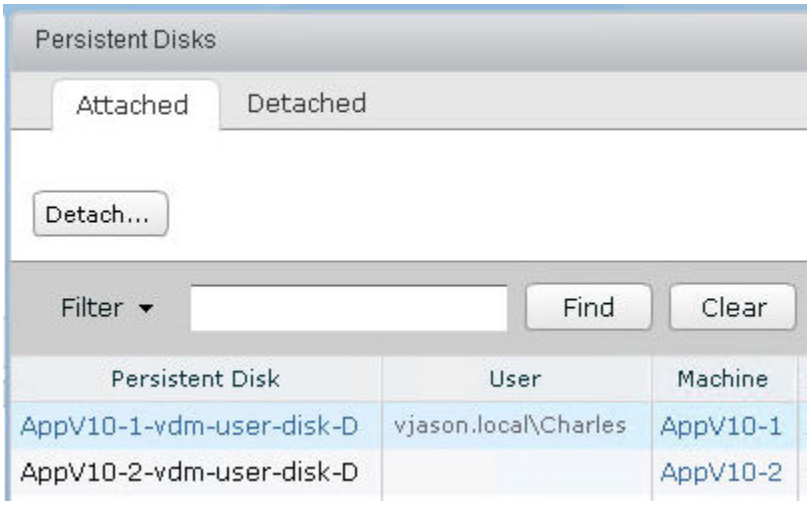
Parent VM: /RTP/vm/W10x64-Base Change...

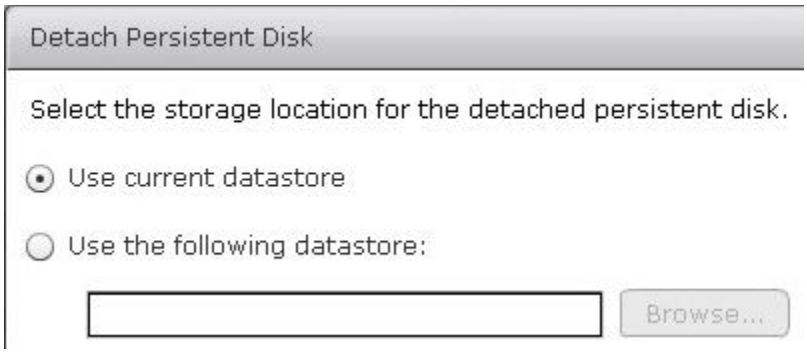
Snapshot:

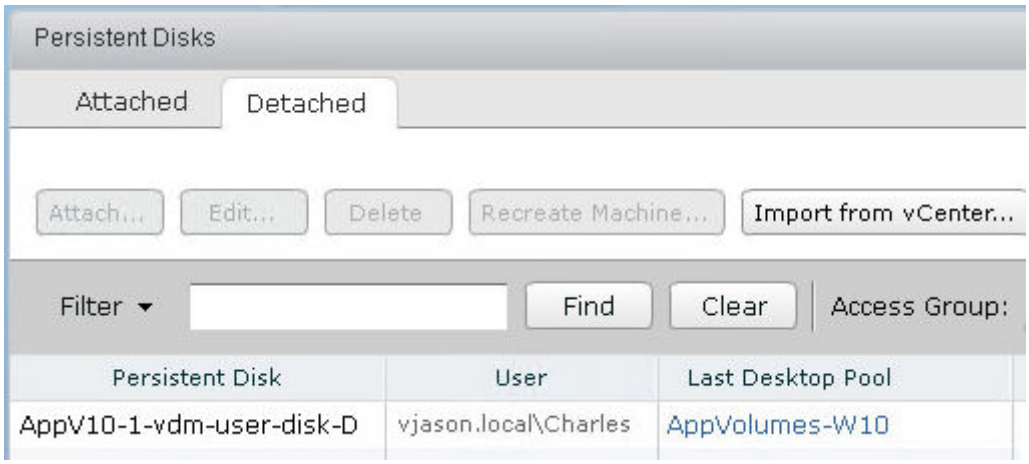
Snapshot Details

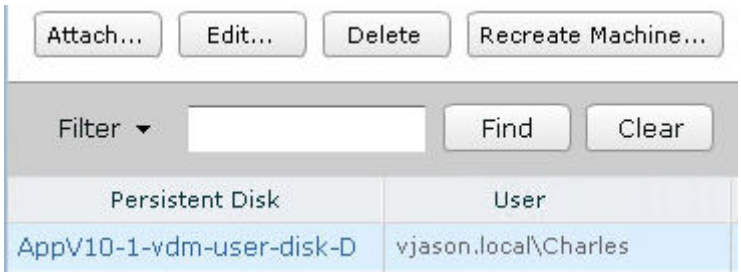
Snapshot	Time created 1 ▲	Description	Path
PreDeploy	1/12/2016 9:34:27		/PreDeploy
UEM	1/16/2016 11:29:1		/PreDeploy/UEM
UEM2	1/16/2016 1:09:36		/PreDeploy/UEM/UEM2
Updated App Volumes Agent	3/18/2016 9:50:15		/PreDeploy/UEM/UEM2/Agent

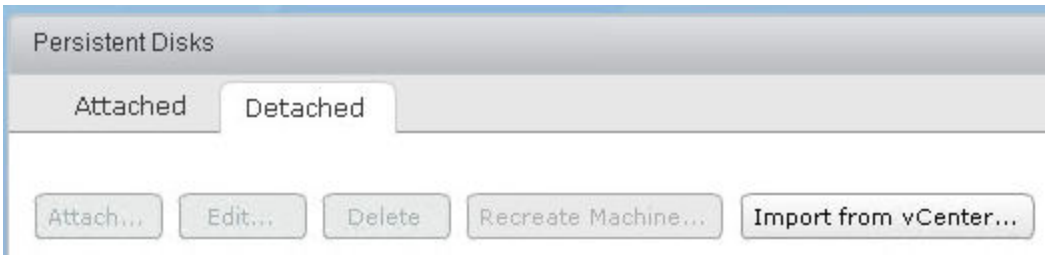
	Datastore	Capacity (GB)	Free (GB)	FS Type	Drive Typ	Machine	Storage Overcommit
☑	RTP1:Infra	2,520.94	2,076.40	NFS		2	Conservative
☐	RTP1:Infra2	1,008.37	769.88	NFS		0	

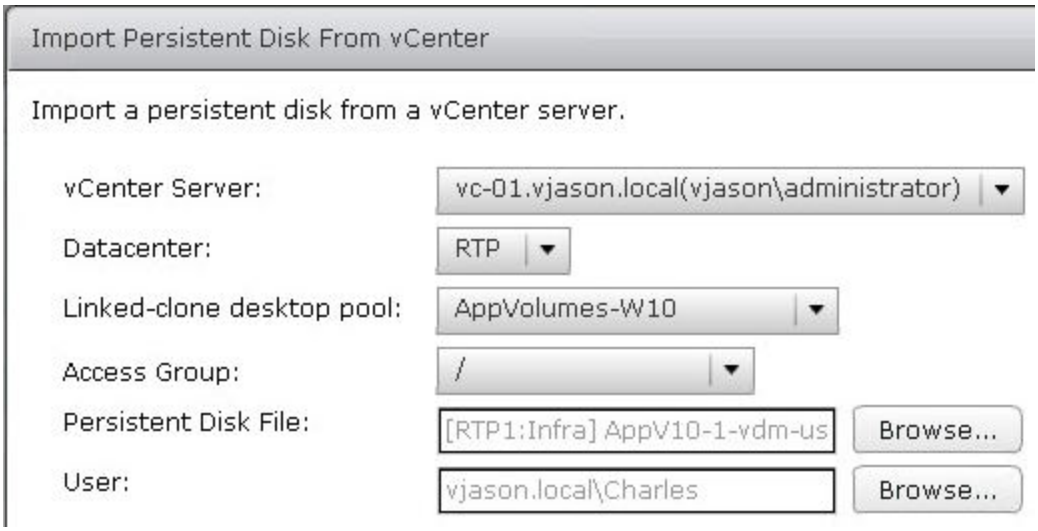



Detach Persistent Disk
Select the storage location for the detached persistent disk.
Use current datastore
Use the following datastore:
Browse...

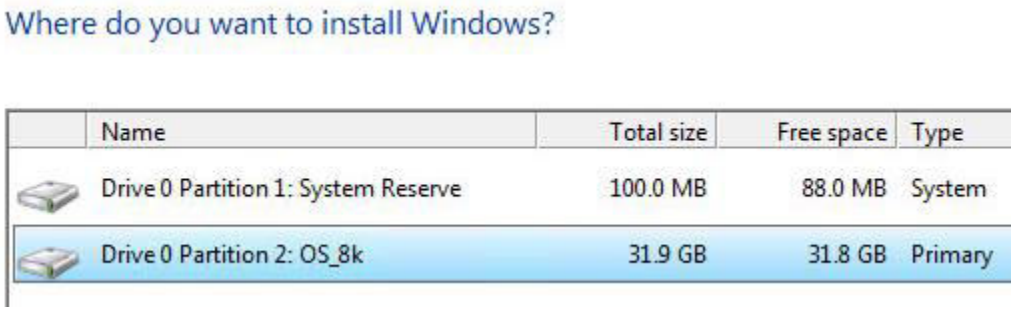

Persistent Disks
Attached
Detached
Attach...
Edit...
Delete
Recreate Machine...
Import from vCenter...
Filter
Find
Clear
Access Group:
Persistent Disk
User
Last Desktop Pool
AppV10-1-vdm-user-disk-D
vjason.local\Charles
AppVolumes-W10

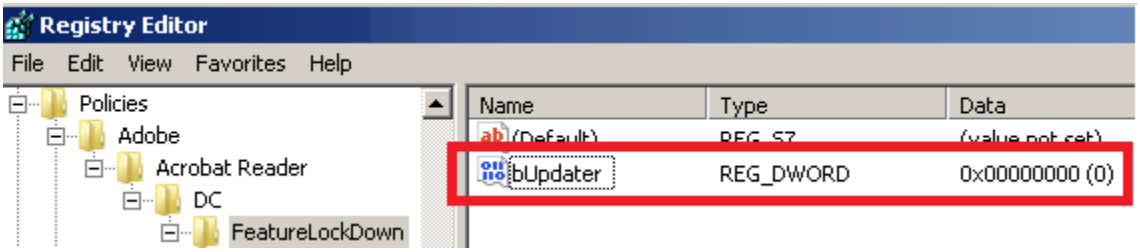

Attach...
Edit...
Delete
Recreate Machine...
Filter
Find
Clear
Persistent Disk
User
AppV10-1-vdm-user-disk-D
vjason.local\Charles

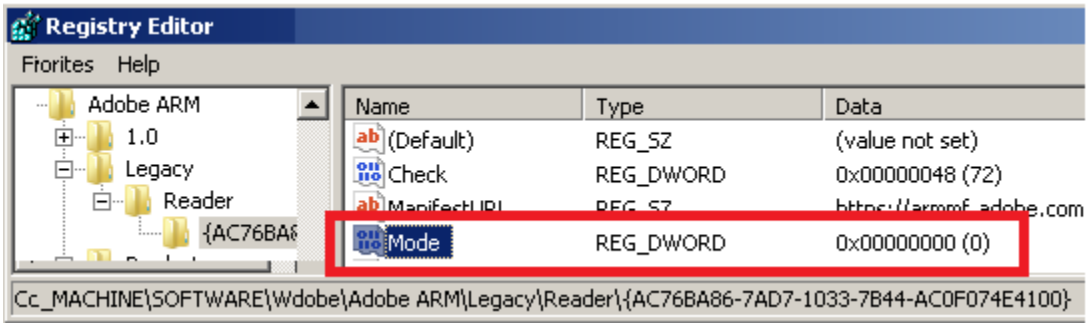

Persistent Disks
Attached
Detached
Attach...
Edit...
Delete
Recreate Machine...
Import from vCenter...

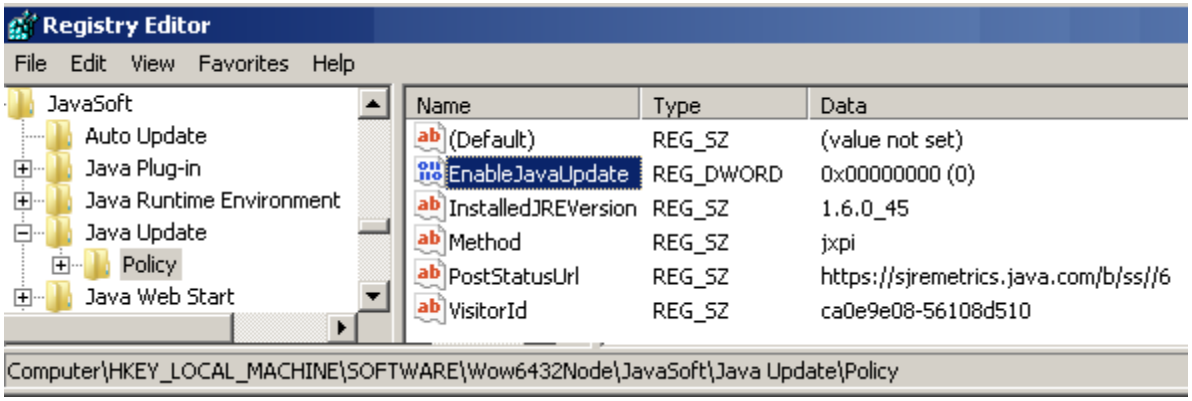

Import Persistent Disk From vCenter
Import a persistent disk from a vCenter server.
vCenter Server:
vc-01.vjason.local(vjason\administrator)
Datacenter:
RTP
Linked-clone desktop pool:
AppVolumes-W10
Access Group:
/
Persistent Disk File:
[RTP1:Infra] AppV10-1-vdm-us
Browse...
User:
vjason.local\Charles
Browse...

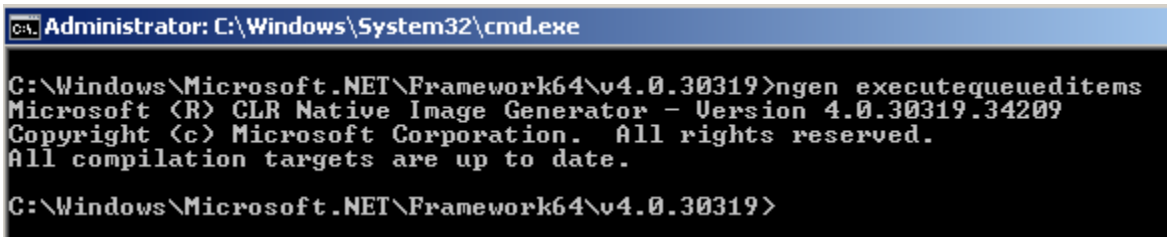
Chapter 13: Creating a Master Horizon Desktop Image





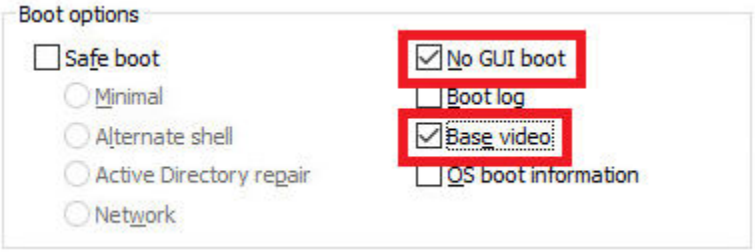


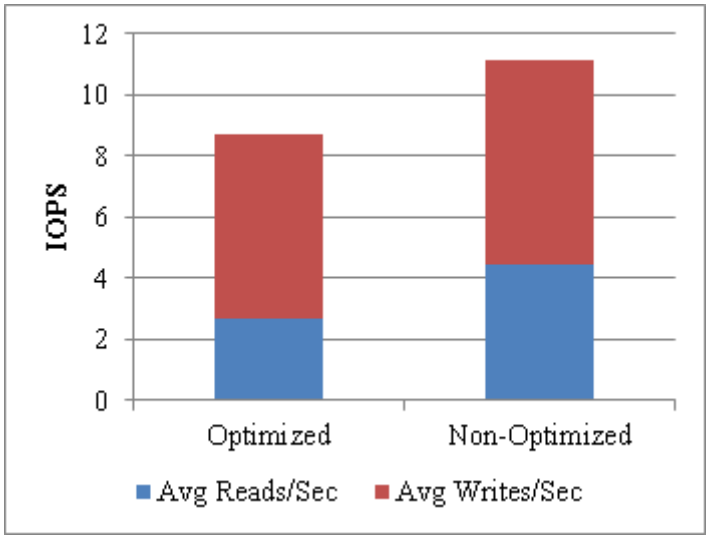


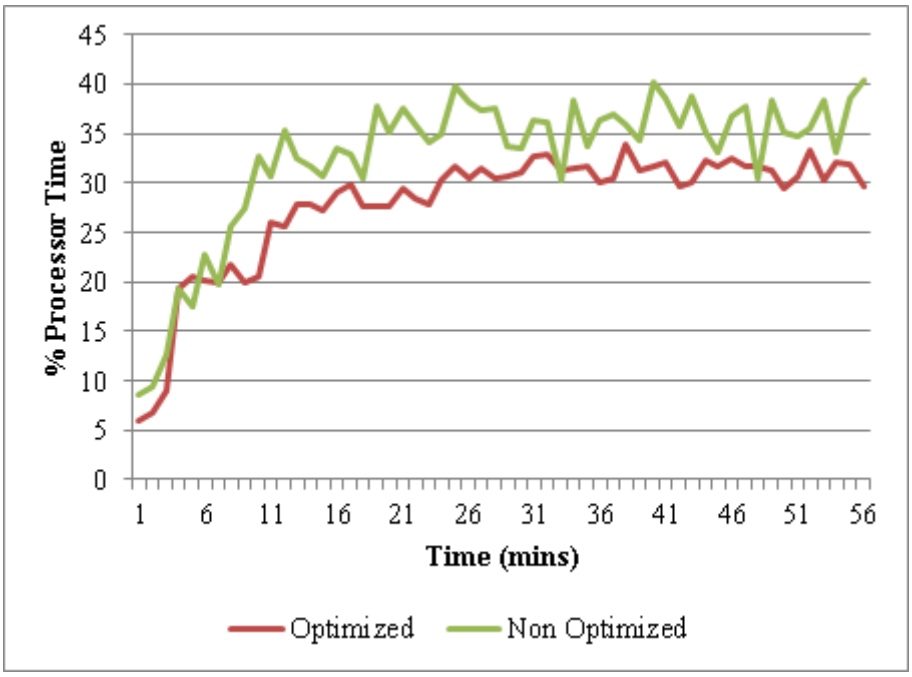


```
PS C:\Users\administrator> Get-AppxProvisionedPackage -Online | Select DisplayName, PackageName

DisplayName                         PackageName
-----------                         -----------
Microsoft.3DBuilder                 Microsoft.3DBuilder_10.9.50.0_neutral_~_8wekyb3d8bbwe
Microsoft.Appconnector              Microsoft.Appconnector_2015.707.550.0_neutral_~_8wekyb3d8bbwe
Microsoft.BingFinance               Microsoft.BingFinance_4.6.169.0_neutral_~_8wekyb3d8bbwe
Microsoft.BingNews                  Microsoft.BingNews_4.6.169.0_neutral_~_8wekyb3d8bbwe
```

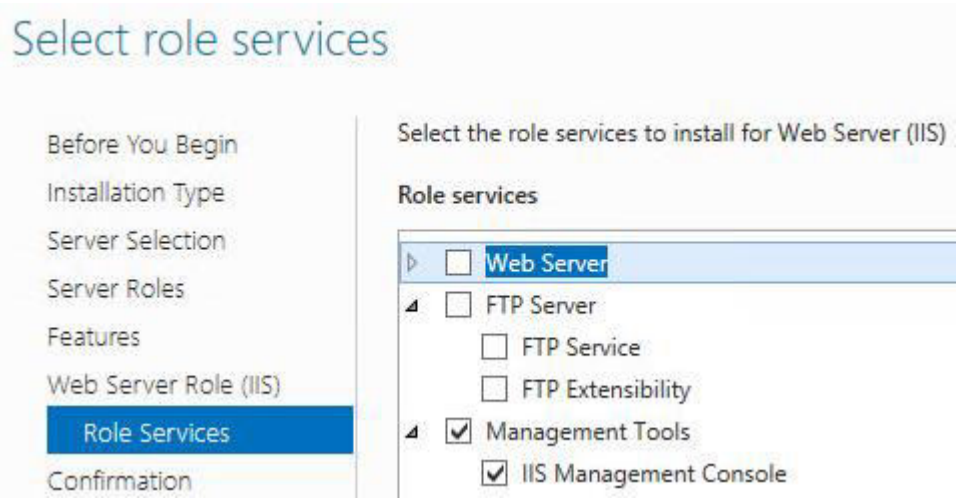
```
PS C:\> Get-AppxProvisionedPackage -Online | Where-Object {$_.PackageName -notlike "*store*"} | Remove-AppxProvisionedPa
ckage -Online


Path           :
Online         : True
Restart Needed : False

Path           :
Online         : True
Restart Needed : False
```






45
40
35
30
25
20
15
10
5
0
% Processor Time
1
6
11
16
21
26
31
36
41
46
51
56
Time (mins)
Optimized
Non Optimized

Chapter 14: Managing Horizon SSL Certificates



Select a task:

Request a certificate

View the status of a pending certificate request

Download a CA certificate, certificate chain, or CRL

Request a Certificate

Select the certificate type:

User Certificate

Or, submit an advanced certificate request.

Advanced Certificate Request

The policy of the CA determines the types of certificates you can request. Click one of the following options to:

Create and submit a request to this CA.

Submit a certificate request by using a base-64-encoded CMC or PKCS #10 file, or submit a renewal request by using a base-64-encoded PKCS #7 file.

Advanced Certificate Request

Certificate Template:

Web Server-Export

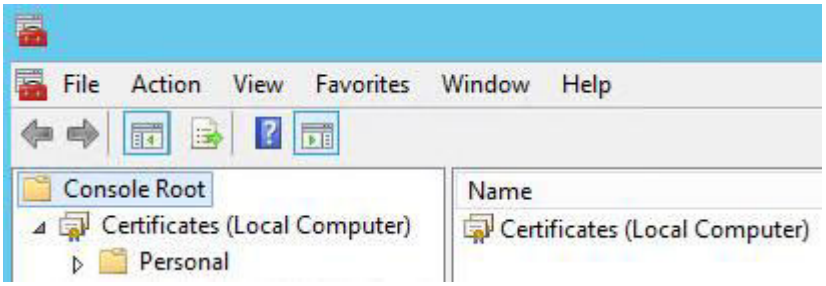
Identifying Information For Offline Template:

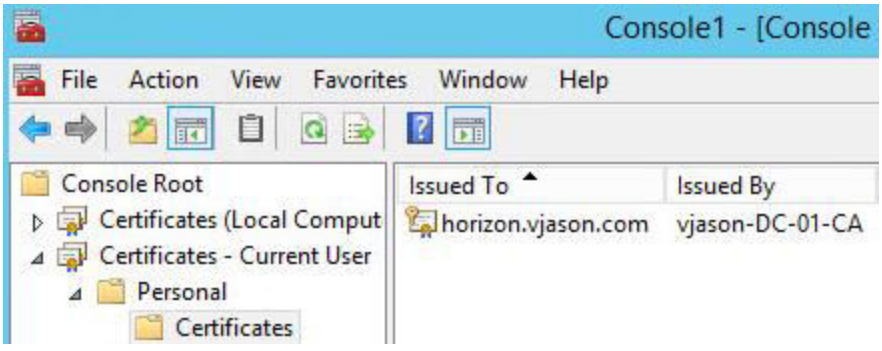
Name: horizon.vjason.com

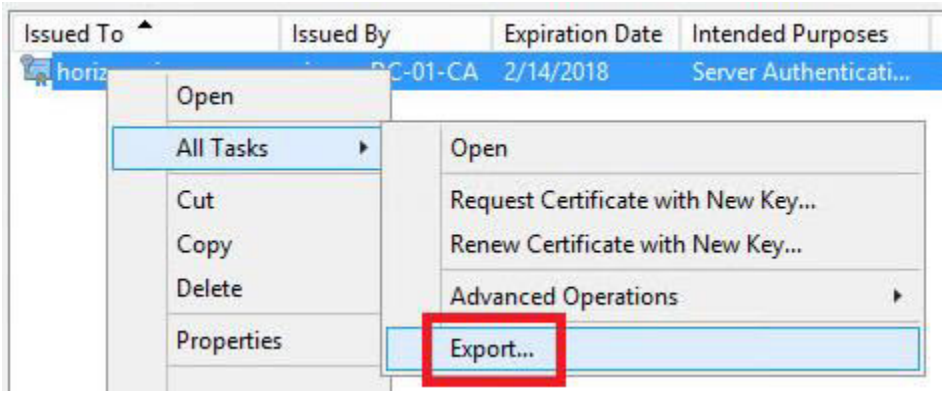
E-Mail: jason@vjason.com

This snap-in will always manage certificates for:

- ○ My user account
- ○ Service account
- ◉ Computer account







Export Private Key

You can choose to export the private key with the certificate.

Private keys are password protected. If you want to export the private key with the certificate, you must type a password on a later page.

Do you want to export the private key with the certificate?

- (•) Yes, export the private key
- ( ) No, do not export the private key

- (•) Personal Information Exchange - PKCS #12 (.PFX)
  - [ ] Include all certificates in the certification path if possible
  - [ ] Delete the private key if the export is successful
  - [ ] Export all extended properties

Security

To maintain security, you must protect the private key to a security principal or by using a password.

- [ ] Group or user names (recommended)

Add

Remove

- [x] Password: ••••••••

Confirm password: ••••••••

```
c:\OpenSSL-Win32\bin>openssl.exe pkcs12 -in e:\Horizon\horap01.pfx -out e:\Horiz
on\key.pem -nodes
Enter Import Password:
MAC verified OK

c:\OpenSSL-Win32\bin>openssl.exe rsa -in e:\Horizon\key.pem -out e:\Horizon\serv
er.key
writing RSA key

c:\OpenSSL-Win32\bin>openssl.exe pkcs12 -in e:\Horizon\horap01.pfx -clcerts -nok
eys -out e:\Horizon\horap01.crt
Enter Import Password:
MAC verified OK
```

Download a CA Certificate, Certificate Chain, or CRL

To trust certificates issued from this certification authority, install this CA certificate chain.

To download a CA certificate, certificate chain, or CRL, select the certificate and encoding method.

CA certificate:

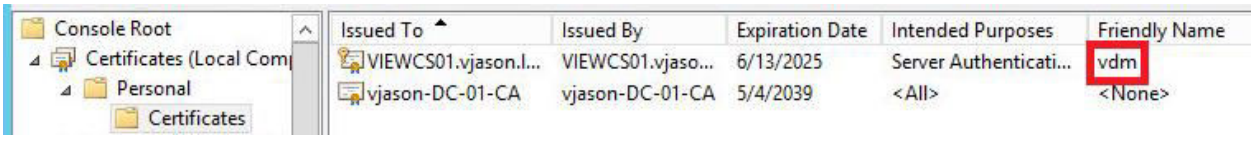
Current [vjason-DC-01-CA(1)]
Previous [vjason-DC-01-CA]

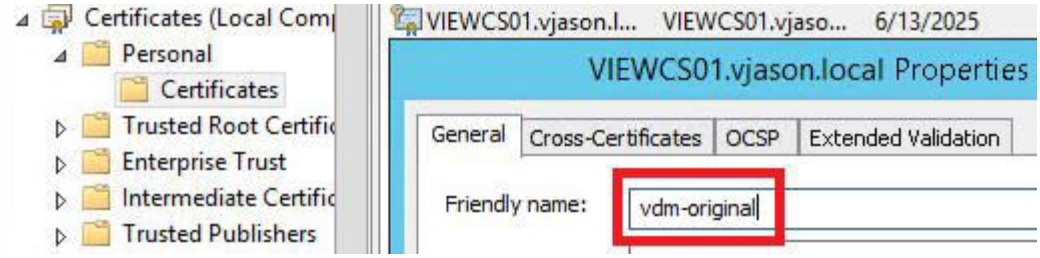
Encoding method:

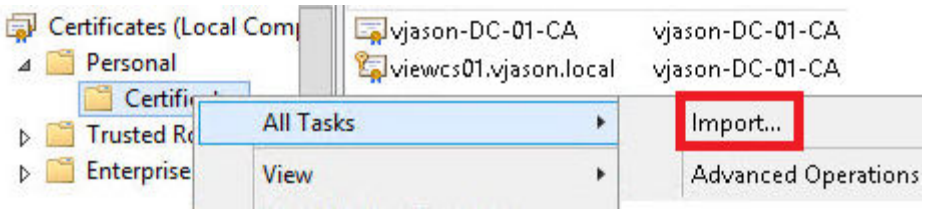
○ DER
◉ Base 64

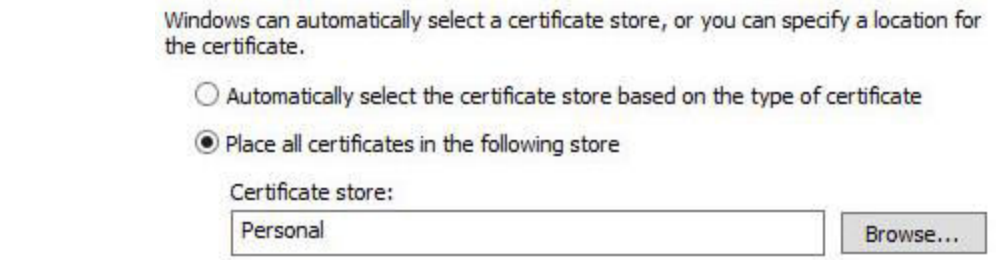
Download CA certificate

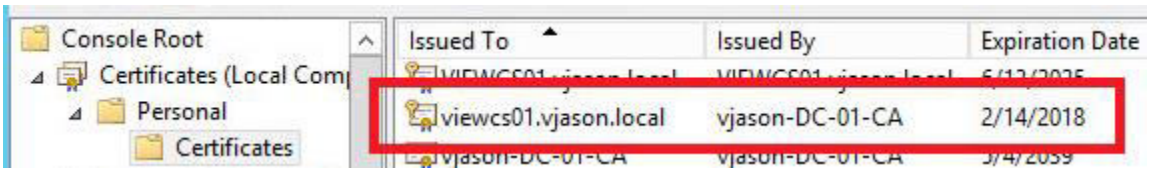
```
-----BEGIN CERTIFICATE-----
MIIFvjCCBKagAwIBAgITLgAAAB11czz52VRZDwABAAAAHTANBgkqhkiG9w0BAQsF
-----END CERTIFICATE-----
-----BEGIN CERTIFICATE-----
MIIDlDCCAnygAwIBAgIQSsToIsb9waNGuNFjY8/GdjANBgkqhkiG9w0BAQsFADBJ
-----END CERTIFICATE-----
```



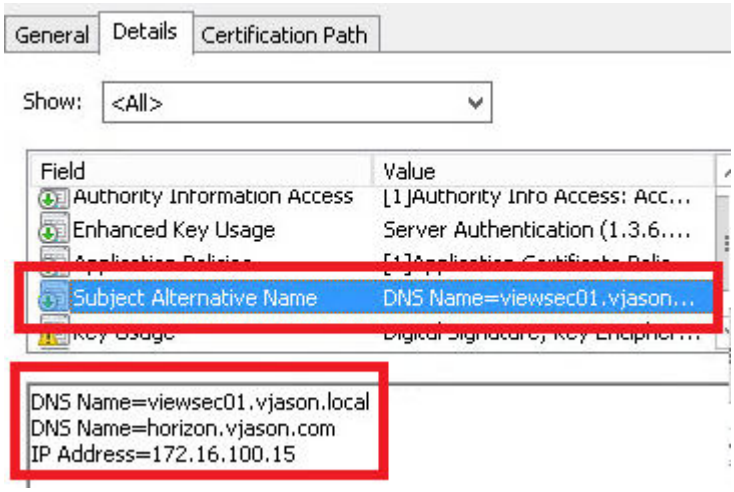



Certificates (Local Comp
Personal
Certifi
Trusted Ro
Enterprise
vjason-DC-01-CA
vjason-DC-01-CA
viewcs01.vjason.local
vjason-DC-01-CA
All Tasks
View
Import...
Advanced Operations


Windows can automatically select a certificate store, or you can specify a location for the certificate.
Automatically select the certificate store based on the type of certificate
Place all certificates in the following store
Certificate store:
Personal
Browse...


Console Root
Certificates (Local Comp
Personal
Certificates
Issued To
Issued By
Expiration Date
viewcs01.vjason.local
vjason-DC-01-CA
2/14/2018

https://viewcs01.vjason.local
viewcs01.vjason.local
Your connection to this site is private. Details


General
Details
Certification Path
Show:
<All>
Field
Value
Authority Information Access
[1]Authority Info Access: Acc...
Enhanced Key Usage
Server Authentication (1.3.6....
Subject Alternative Name
DNS Name=viewsec01.vjason...
DNS Name=viewsec01.vjason.local
DNS Name=horizon.vjason.com
IP Address=172.16.100.15

```
c:\Program Files (x86)\VMware\VMware View Composer>dir *.exe
 Volume in drive C has no label.
 Volume Serial Number is 0217-149C

 Directory of c:\Program Files (x86)\VMware\VMware View Composer

11/29/2015  10:34 PM           327,384 SviConfig.exe
11/29/2015  10:34 PM            40,664 SviWebService.exe
11/29/2015  10:34 PM            81,920 zip.exe
               3 File(s)        449,968 bytes
               0 Dir(s)  27,883,098,112 bytes free

c:\Program Files (x86)\VMware\VMware View Composer>_
```

```
c:\Program Files (x86)\VMware\VMware View Composer>SviConfig.exe -operation=repl
acecertificate -delete=false

Select a certificate:

 1. Subject: C=US, S=CA, L=CA, O=VMware Inc., OU=VMware Inc., CN=VIEWCOMP01, E=s
upport@vmware.com
    Valid from: 12/23/2015 9:37:42 AM
    Valid to: 12/23/2017 9:37:42 AM
    Thumbprint: 6ABE570CCBA8861593EB939CC5F6BDE788A21568

 2. Subject: CN=viewcomp01.vjason.local
    Valid from: 2/15/2016 7:59:44 AM
    Valid to: 2/14/2018 7:59:44 AM
    Thumbprint: 54FD4F386DD73986CCED2F9D2AC34012065DACAE

Enter choice (0-2, 0 to abort):_
```

View Composer Server Details

Name:	https://viewcomp01.vjason.local:18443
Version:	6.2.0.17889
Status:	No problem detected.
SSL Certificate:	Valid

Additional Options:

Request Format: ◉ CMC ○ PKCS10

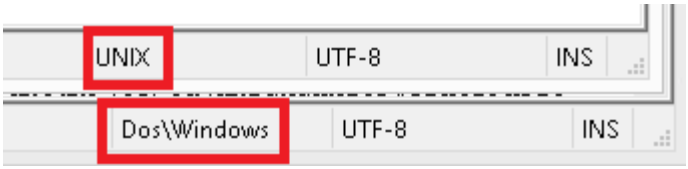
Hash Algorithm: sha1

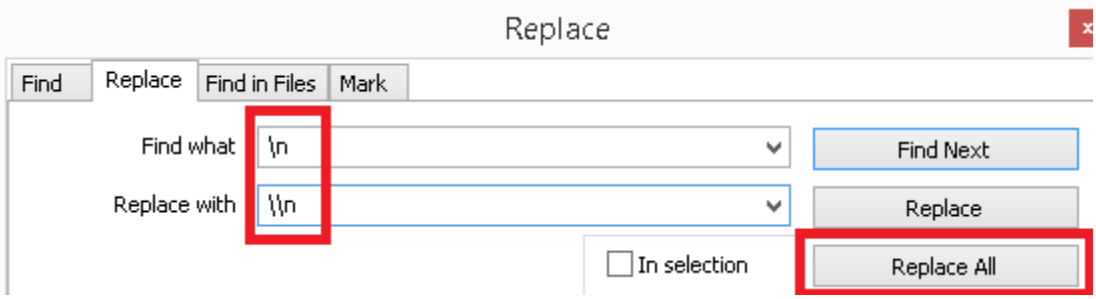
Only used to sign request.

☐ Save request

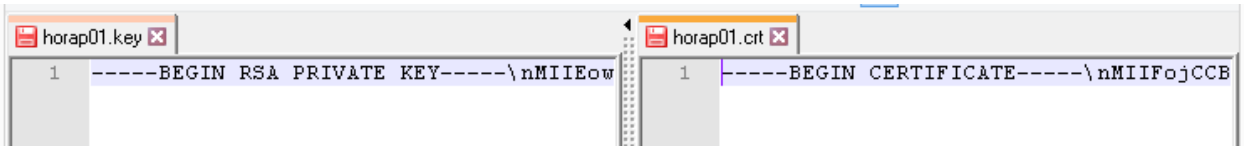
Attributes: san:dns=viewsec01.vjason.local

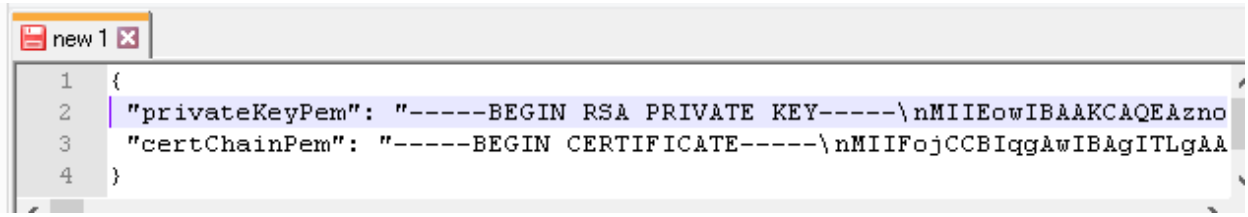
https://rtpappv01/horizonadmin/#/adLogin
rtpappv01
Your connection to this site is private. Details

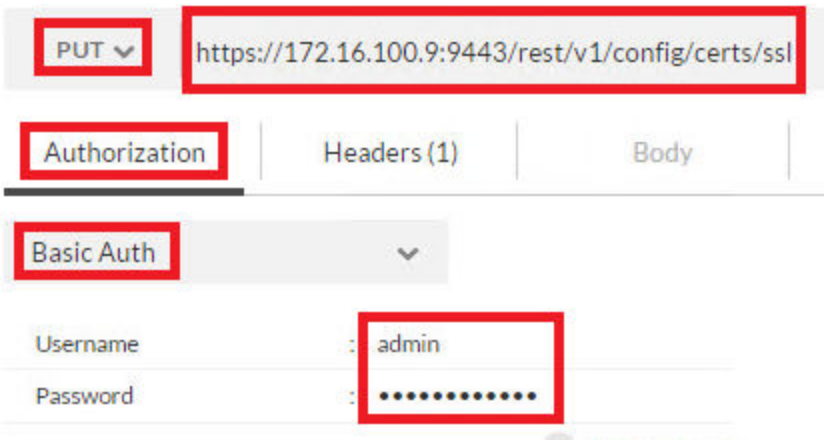

UNIX
UTF-8
INS
Dos\Windows
UTF-8
INS


Replace
Find
Replace
Find in Files
Mark
Find what
\n
Replace with
\\n
In selection
Find Next
Replace
Replace All

EOL Conversion
Blank Operations
Paste Special
Windows Format
UNIX/OSX Format
Old Mac Format


horap01.key
1 -----BEGIN RSA PRIVATE KEY-----\nMIIEow
horap01.crt
1 -----BEGIN CERTIFICATE-----\nMIIFojCCB


new 1
1 {
2 "privateKeyPem": "-----BEGIN RSA PRIVATE KEY-----\nMIIEowIBAAKCAQEAzno
3 "certChainPem": "-----BEGIN CERTIFICATE-----\nMIIFojCCBIqgAwIBAgITLgAA
4 }



```
root@rtpappv01:/etc/nginx# scp root@172.16.100.27:/tmp/appvol_self_vmware.com.crt /etc/nginx/appvol_
self_vmware.com.crt
The authenticity of host '172.16.100.27 (172.16.100.27)' can't be established.
RSA key fingerprint is a7:9a:c0:b3:1f:df:ac:b1:a3:a7:8b:2c:82:f2:be:70.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '172.16.100.27' (RSA) to the list of known hosts.
Password:
appvol_self_vmware.com.crt                                    100% 3850     3.8KB/s   00:00
root@rtpappv01:/etc/nginx# scp root@172.16.100.27:/tmp/appvol_self_vmware.com.key /etc/nginx/appvol_
self_vmware.com.key
Password:
appvol_self_vmware.com.key                                    100% 1675     1.6KB/s   00:00
root@rtpappv01:/etc/nginx#
```

Chapter 15: Using Horizon PowerCLI

```
C:\>winrm quickconfig -transport:https
WinRM service is already running on this machine.
WinRM is not set up to allow remote access to this machine for management.
The following changes must be made:

Create a WinRM listener on HTTPS://* to accept WS-Man requests to any IP on this
 machine.
Configure CertificateThumbprint setting for the service, to be used for CredSSP
authentication.

Make these changes [y/n]? y

WinRM has been updated for remote management.

Created a WinRM listener on HTTPS://* to accept WS-Man requests to any IP on thi
s machine.
Configured required settings for the service.
```

```
PS C:\> Enter-PSSession -ComputerName "viewcs03.vjason.local" -UseSSL -Credentia
l "vjason\svc-horizon"
```

```
[viewcs03.vjason.local]: PS C:\> _
```

```
[viewcs03.vjason.local]: PS C:\Program Files\VMware\VMware View\Server\extras\PowerShell> .\add-snapin.ps1
Loading VMware View PowerCLI

         Welcome to VMware View PowerCLI


[viewcs03.vjason.local]: PS C:\Program Files\VMware\VMware View\Server\extras\PowerShell>
```