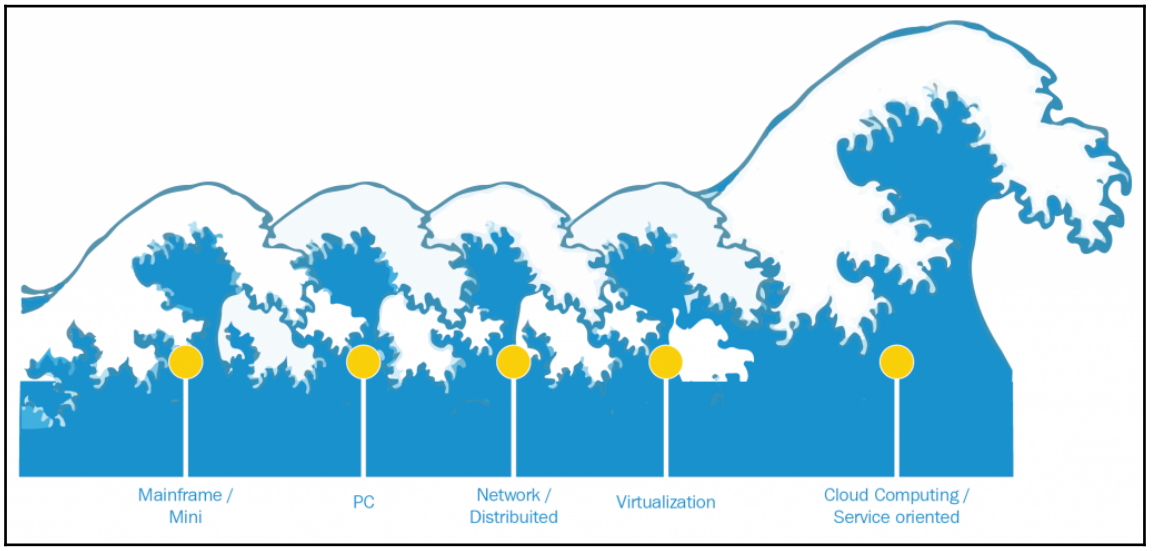
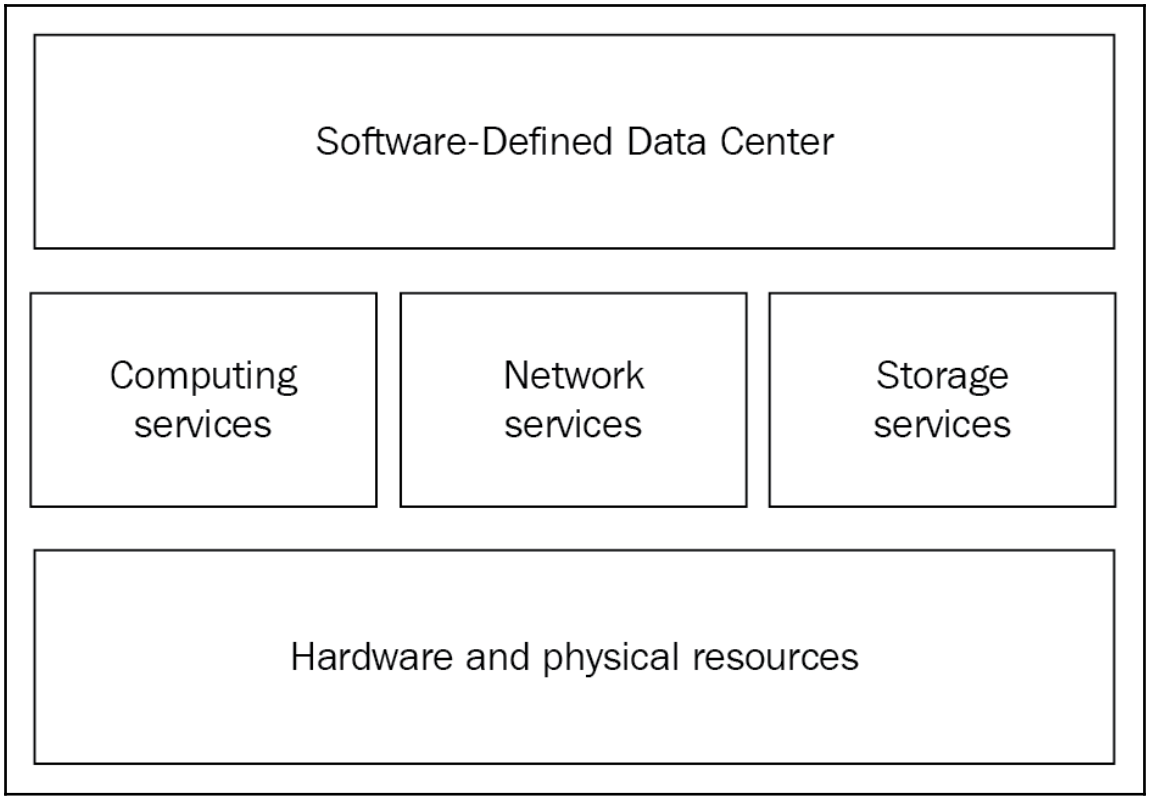
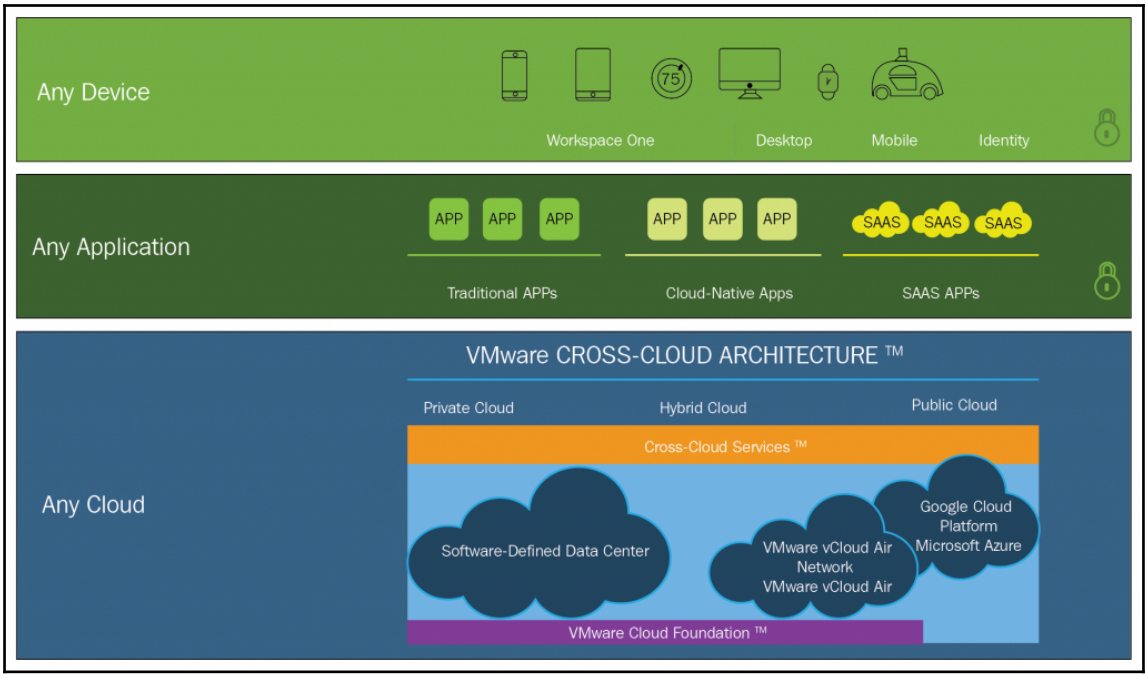
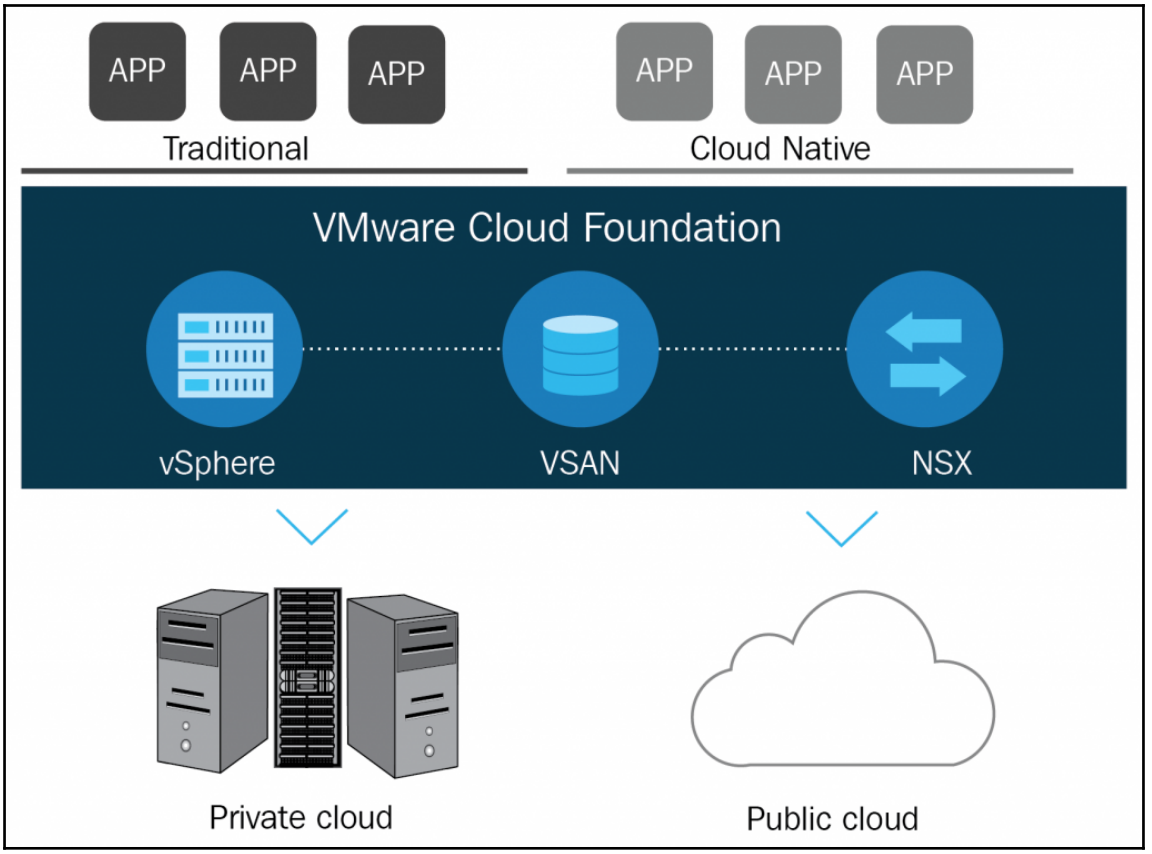
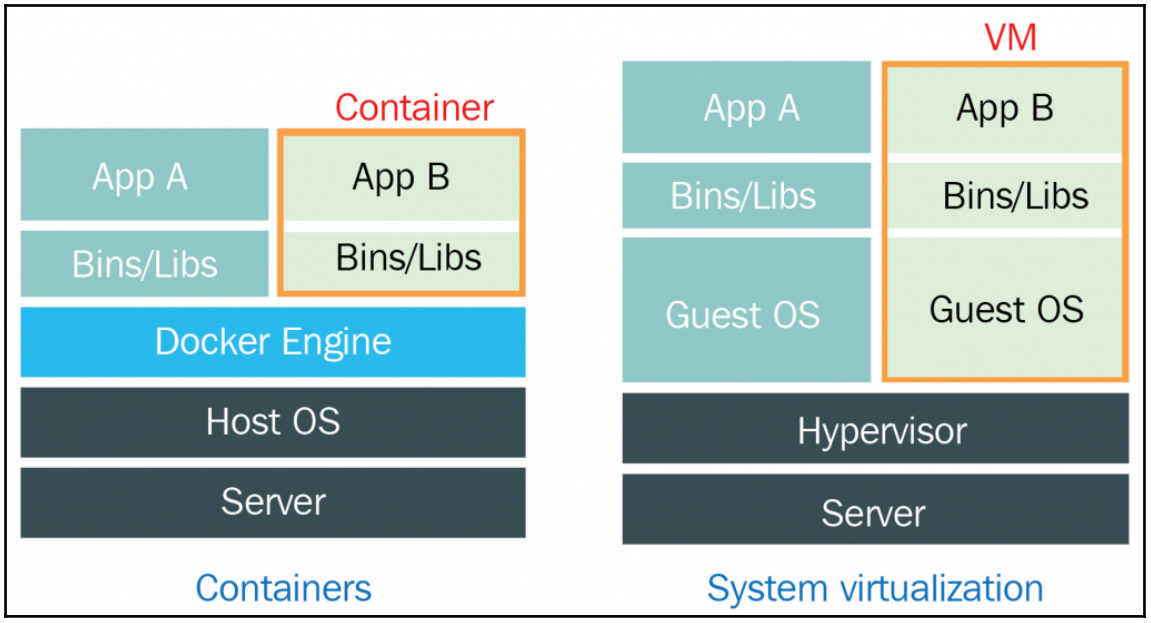
Chapter 1: Evolution of VMware vSphere Suite

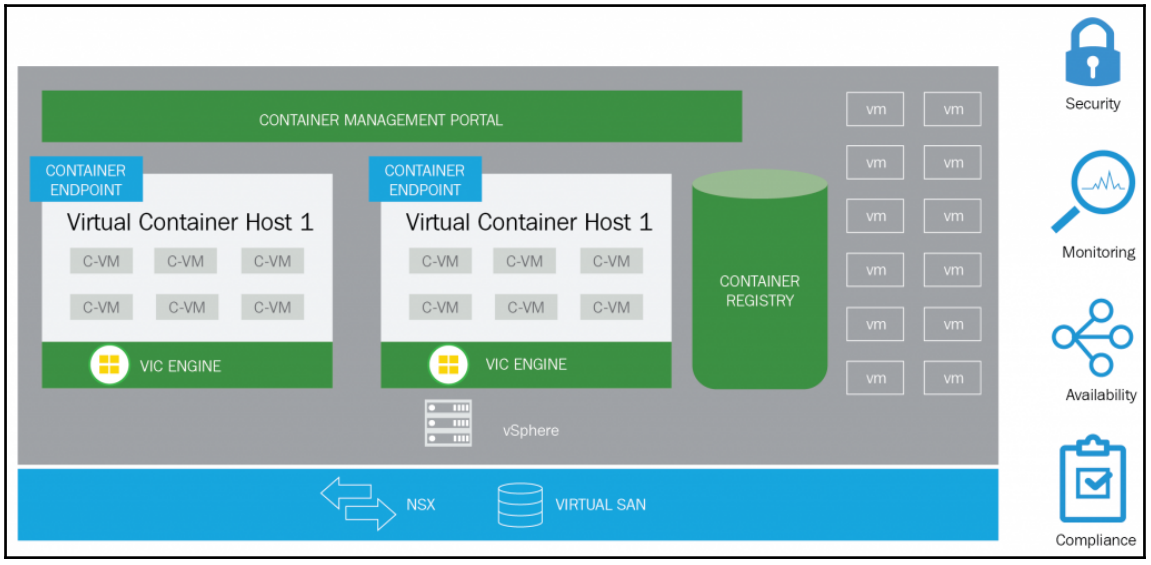



Software-Defined Data Center
Computing services
Network services
Storage services
Hardware and physical resources

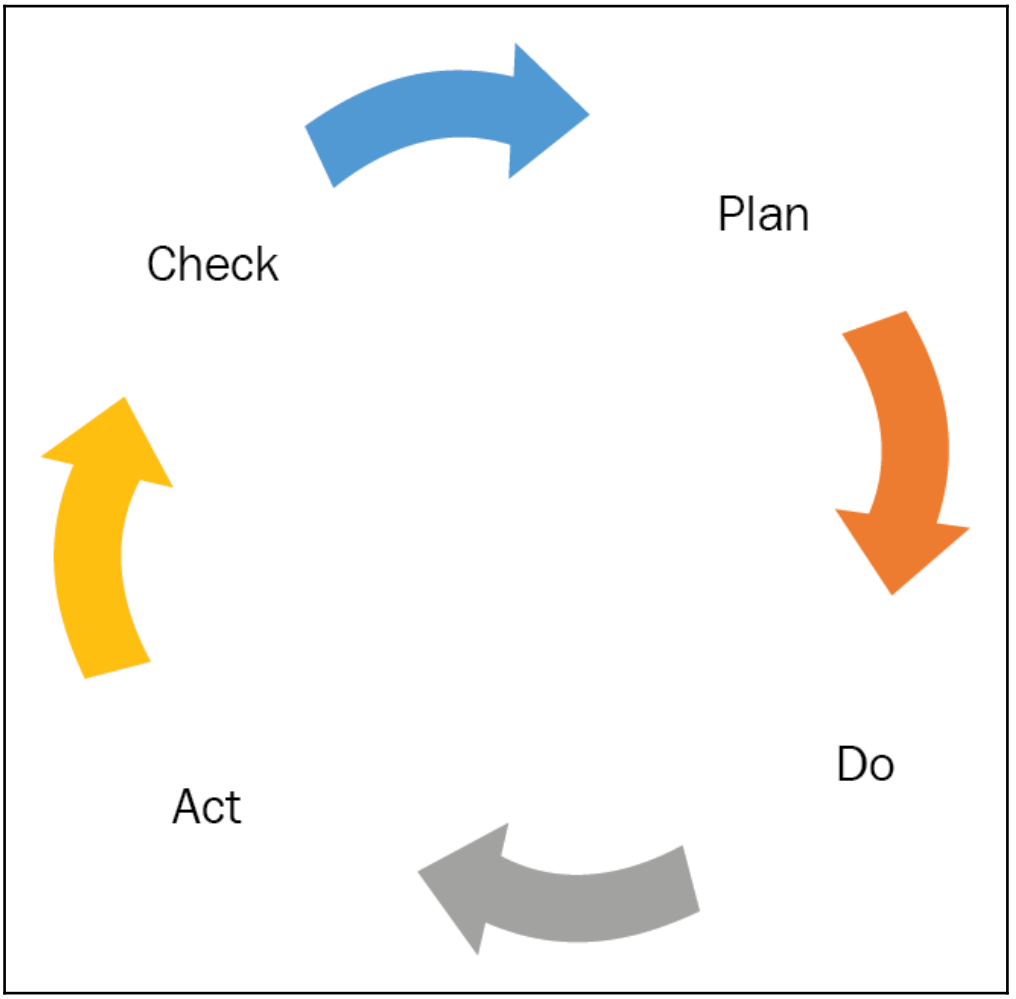

Any Device
Workspace One
Desktop
Mobile
Identity
Any Application
APP
APP
APP
APP
APP
APP
SAAS
SAAS
SAAS
Traditional APPs
Cloud-Native Apps
SAAS APPs
Any Cloud
VMware CROSS-CLOUD ARCHITECTURE ™
Private Cloud
Hybrid Cloud
Public Cloud
Cross-Cloud Services ™
Software-Defined Data Center
VMware vCloud Air Network
VMware vCloud Air
Google Cloud Platform
Microsoft Azure
VMware Cloud Foundation ™

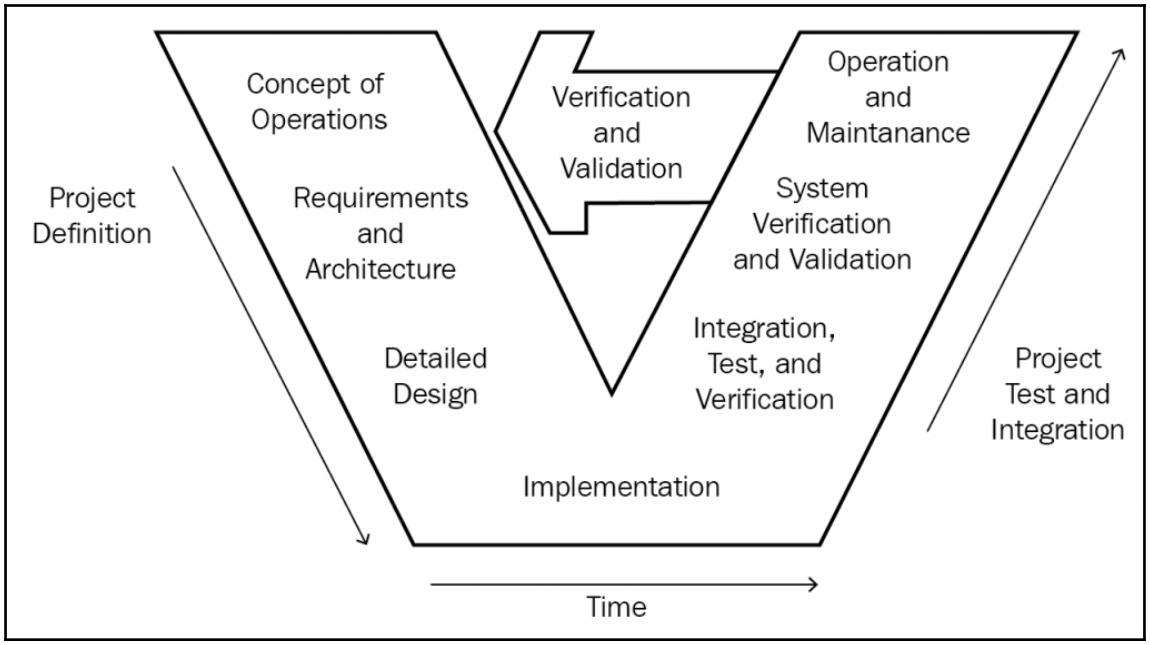

APP
APP
APP
Traditional
APP
APP
APP
Cloud Native
VMware Cloud Foundation
vSphere
VSAN
NSX
Private cloud
Public cloud

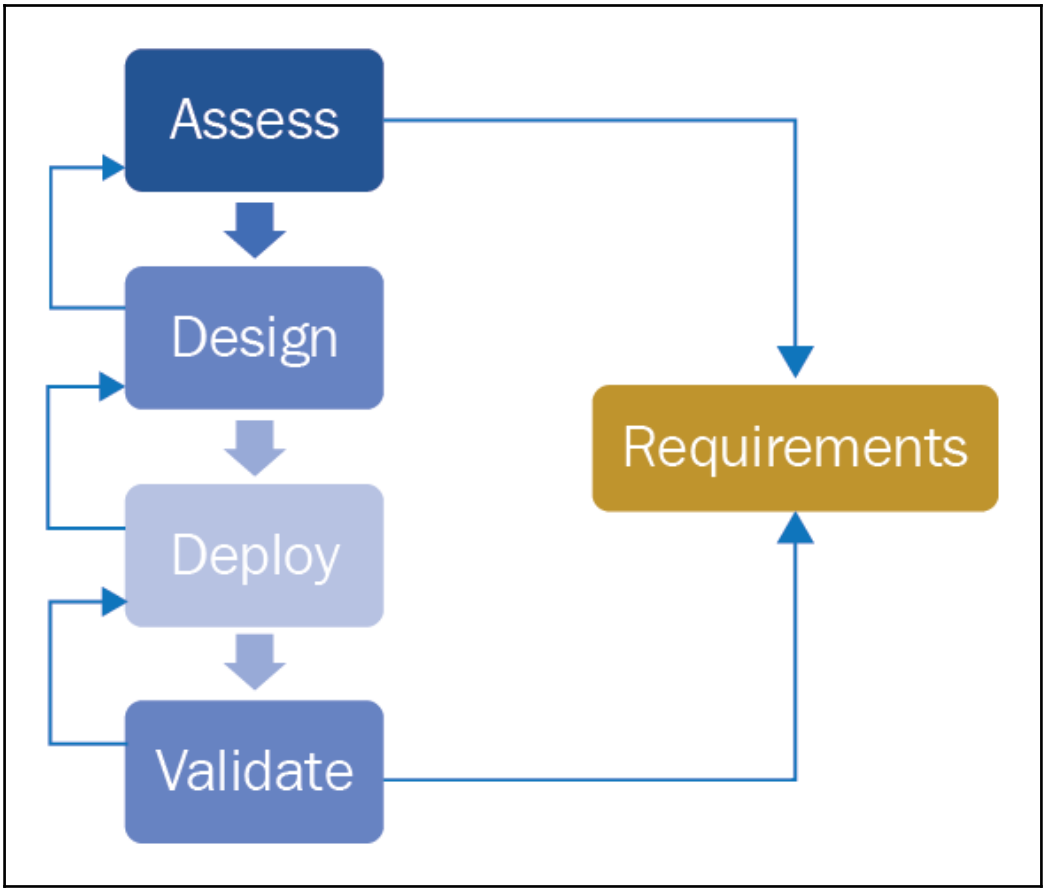

Container
App A
App B
Bins/Libs
Bins/Libs
Docker Engine
Host OS
Server
Containers
VM
App A
App B
Bins/Libs
Bins/Libs
Guest OS
Guest OS
Hypervisor
Server
System virtualization

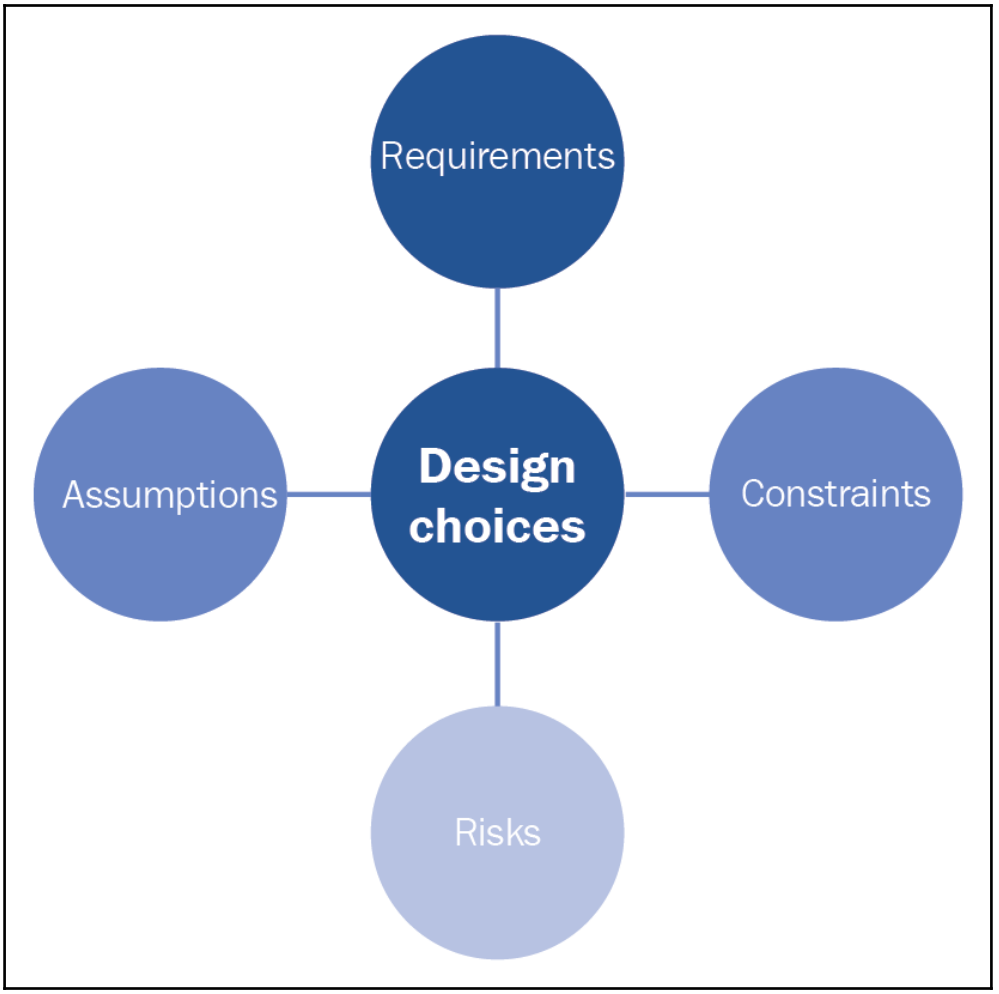

CONTAINER MANAGEMENT PORTAL
CONTAINER ENDPOINT
Virtual Container Host 1
C-VM
C-VM
C-VM
C-VM
C-VM
C-VM
VIC ENGINE
CONTAINER ENDPOINT
Virtual Container Host 1
C-VM
C-VM
C-VM
C-VM
C-VM
C-VM
VIC ENGINE
CONTAINER REGISTRY
vm
vSphere
NSX
VIRTUAL SAN
Security
Monitoring
Availability
Compliance

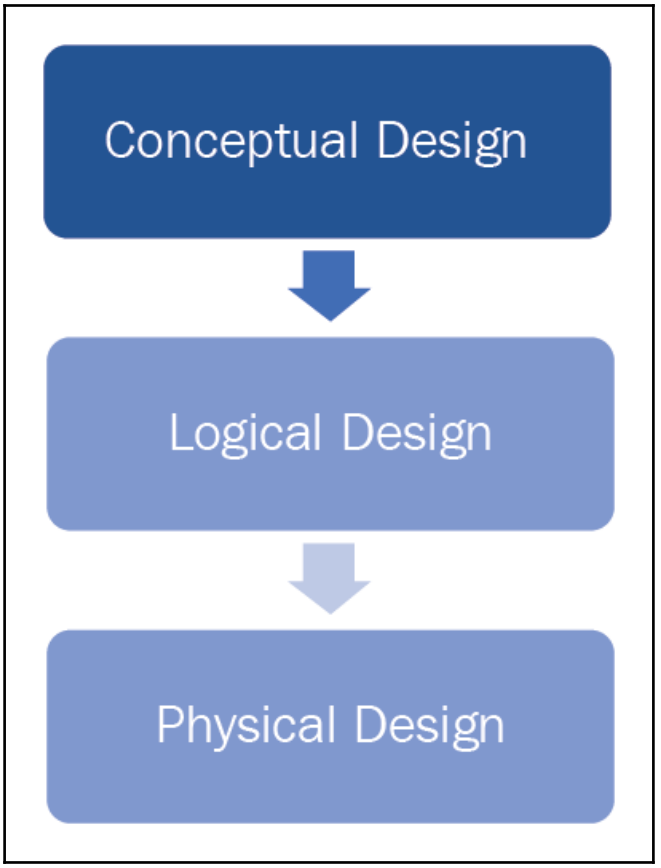
Chapter 2: Design and Plan a Virtualization Infrastructure

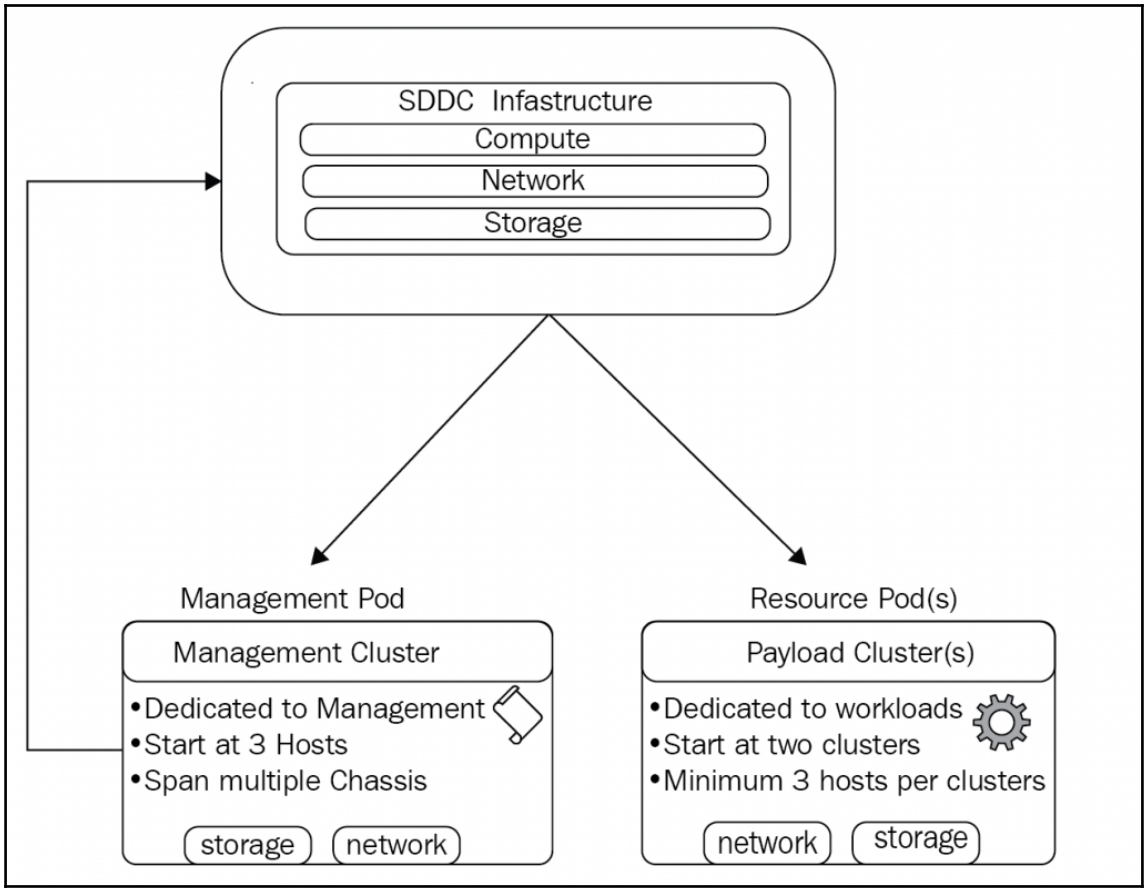


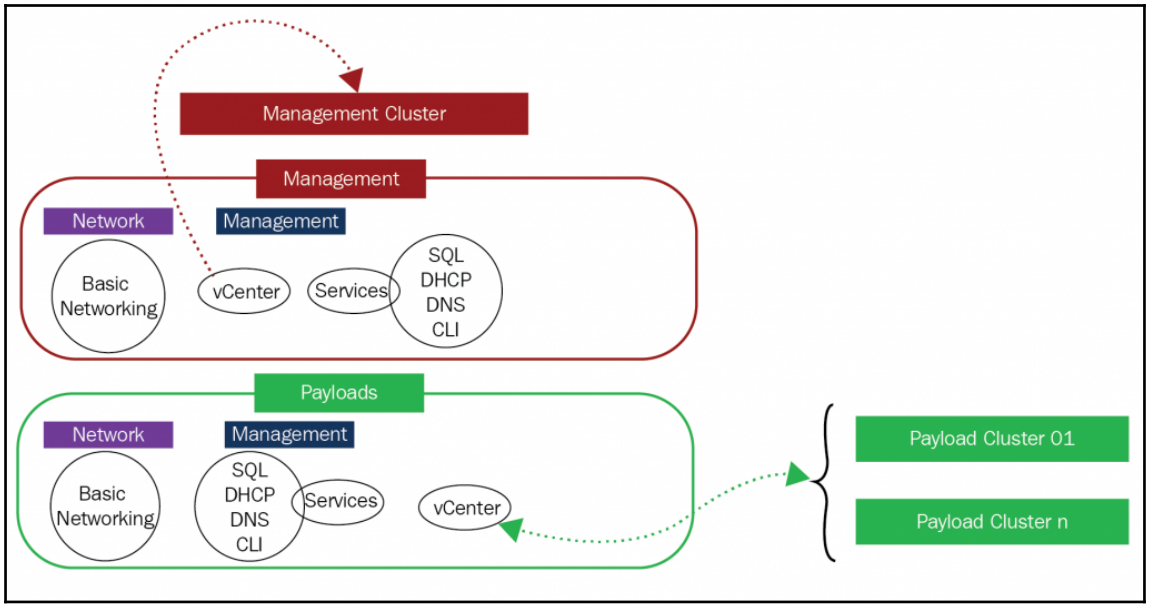

Concept of Operations
Verification and Validation
Operation and Maintanance
Project Definition
Requirements and Architecture
System Verification and Validation
Detailed Design
Integration, Test, and Verification
Project Test and Integration
Implementation
Time

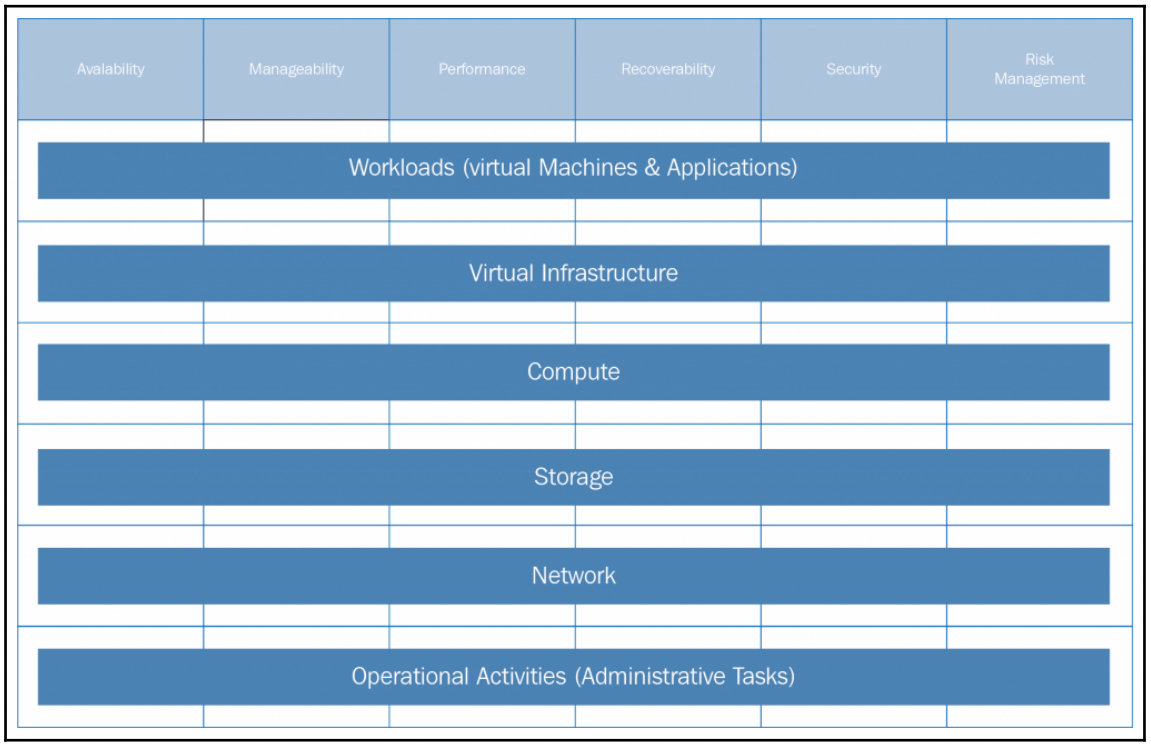

Assess
Design
Deploy
Validate
Requirements

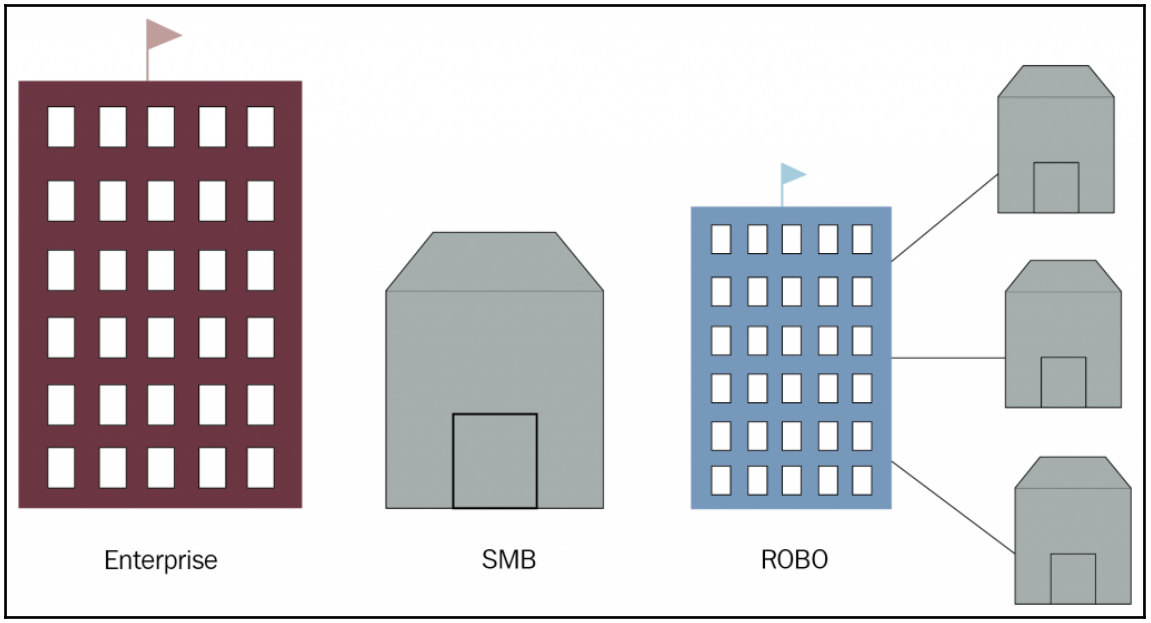

Requirements
Assumptions
Design choices
Constraints
Risks


Conceptual Design
Logical Design
Physical Design


SDDC Infastructure
Compute
Network
Storage
Management Pod
Management Cluster
•Dedicated to Management
•Start at 3 Hosts
•Span multiple Chassis
storage
network
Resource Pod(s)
Payload Cluster(s)
•Dedicated to workloads
•Start at two clusters
•Minimum 3 hosts per clusters
network
storage

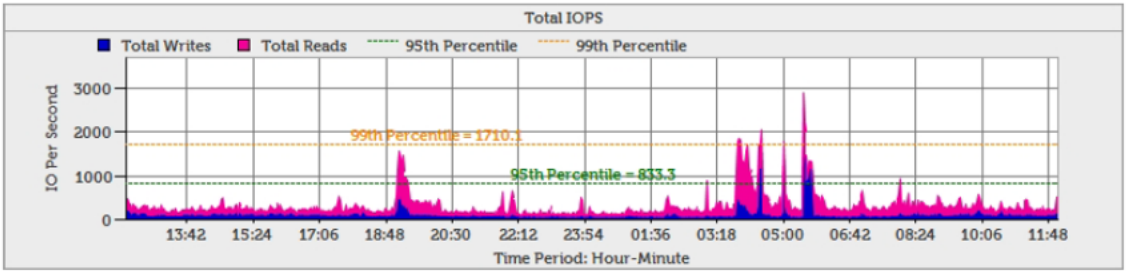

Management Cluster
Management
Network
Management
Basic Networking
vCenter
Services
SQL
DHCP
DNS
CLI
Payloads
Network
Management
Basic Networking
SQL
DHCP
DNS
CLI
Services
vCenter
Payload Cluster 01
Payload Cluster n

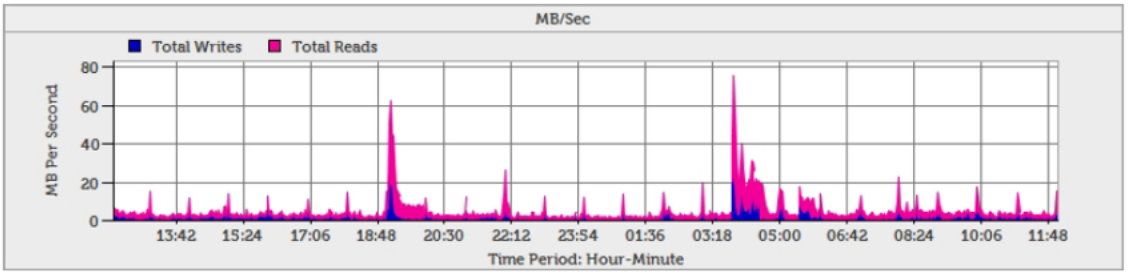

Avalability
Manageability
Performance
Recoverability
Security
Risk Management
Workloads (virtual Machines & Applications)
Virtual Infrastructure
Compute
Storage
Network
Operational Activities (Administrative Tasks)

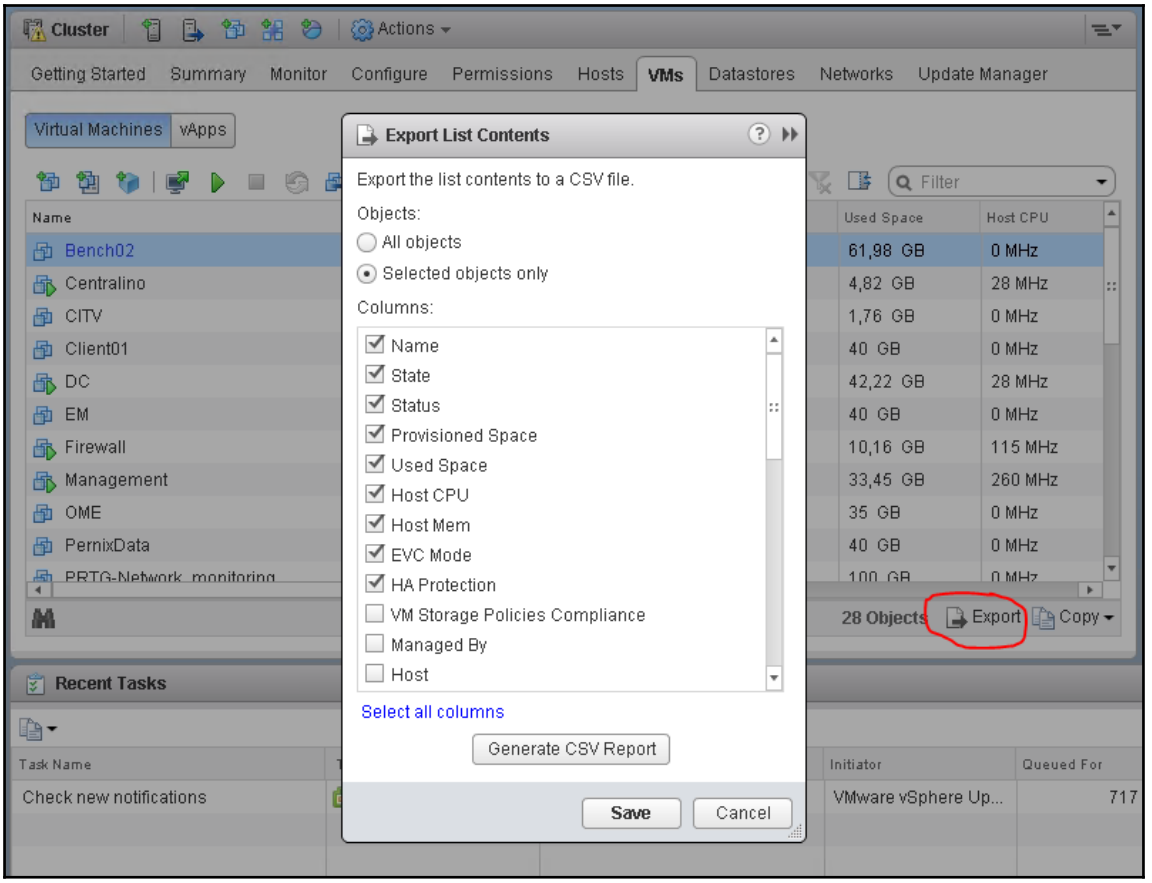

Enterprise
SMB
ROBO

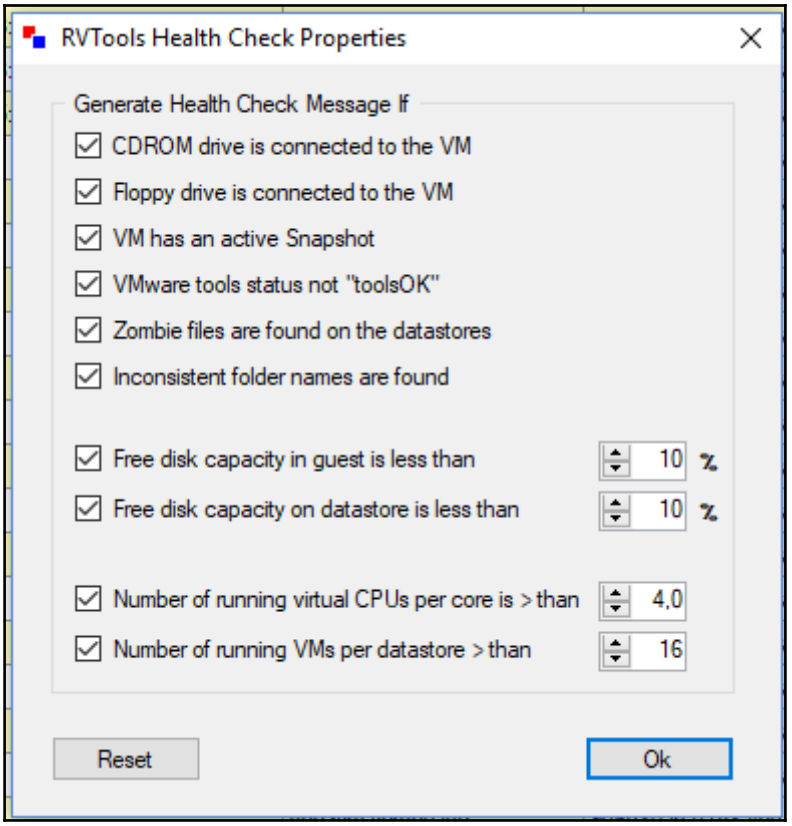
Chapter 3: Analysis and Assessment of an Existing Environment

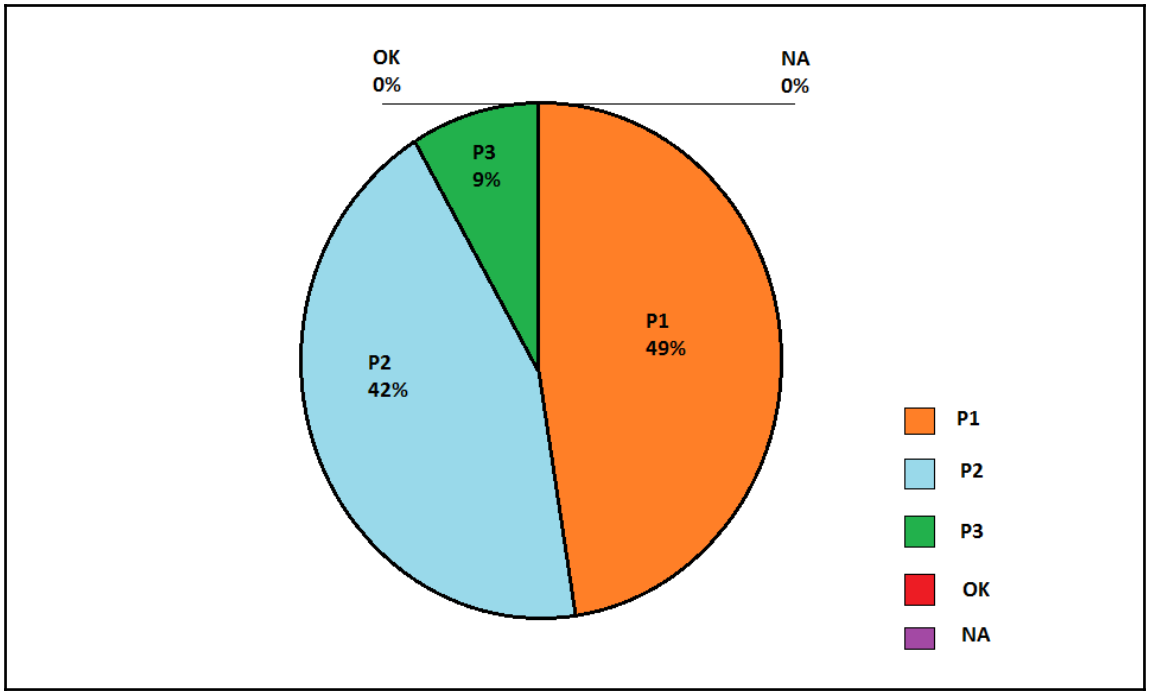
Aggregate Output	
Time Recorded	23 Hour(s) 54 Minute(s), 3/27/2014 - 3/28/2014
Servers Recorded	5
Output Summary:	
Throughput (MB/s)	**75.6**
IOPS	**833.3 at 95%, 1710.1 at 99% and 2883.8 at peak**
Read/Write Ratio	61% and 39%
Total Capacity:	2158.4 GBs
Free Capacity	746.0 GBs Free
Used Capacity	1412.3 GBs Used
Total Cores	21
Total Processors	9
CPU Aggregate	0.2 Ghz



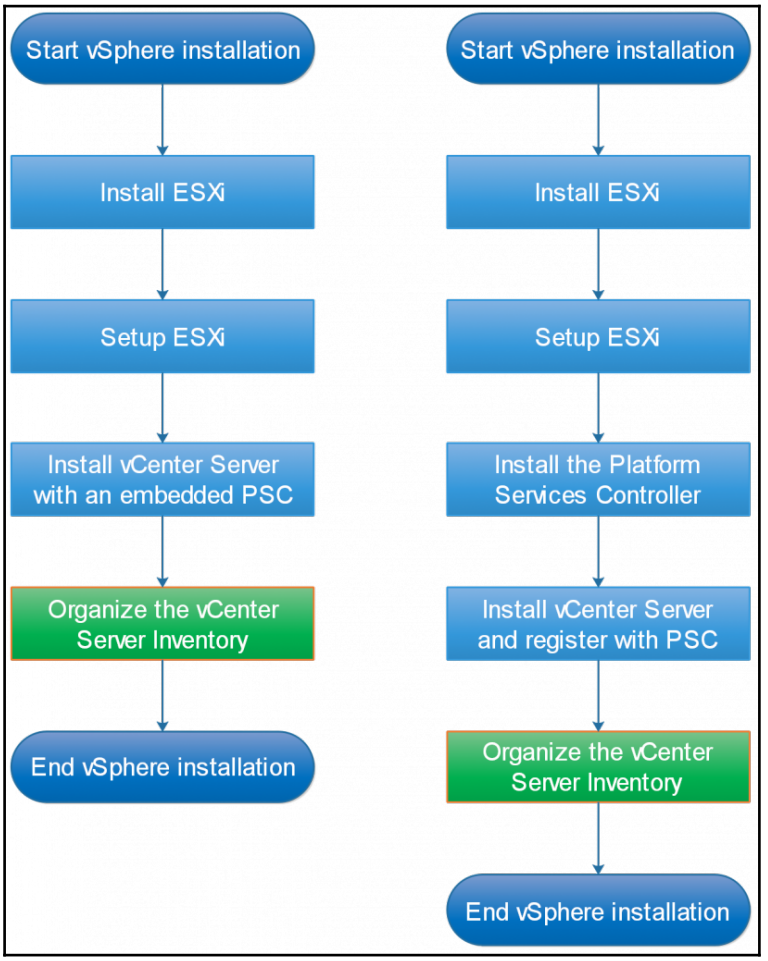


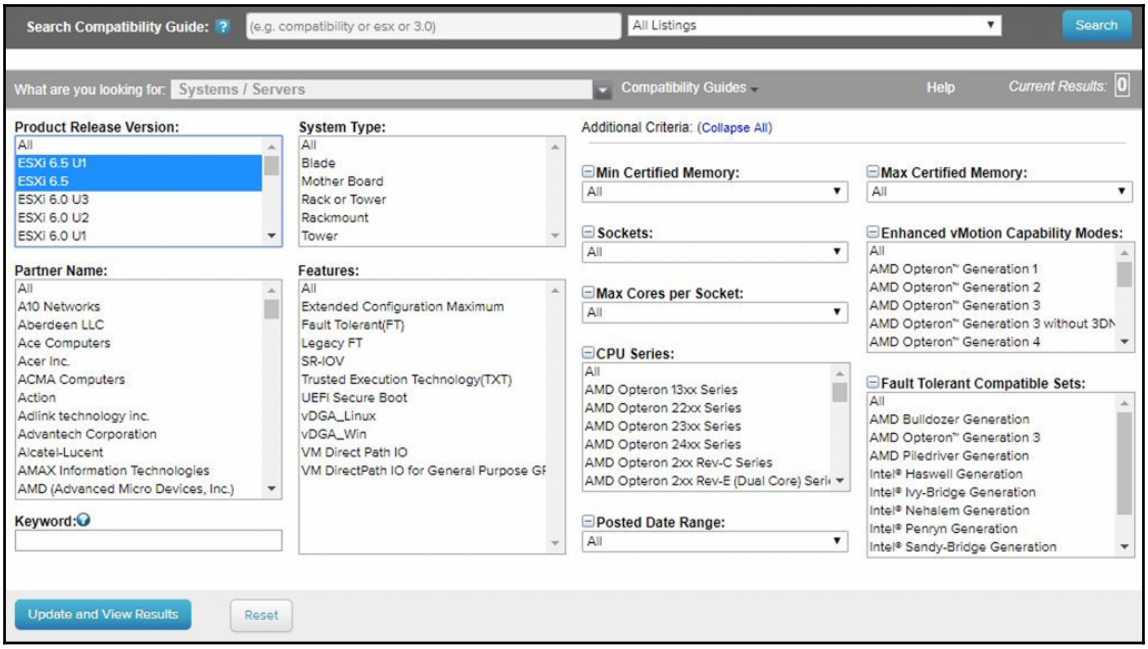

Cluster
Actions
Getting Started
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Update Manager
Virtual Machines
vApps
Filter
Name
Used Space
Host CPU
Bench02
61,98 GB
0 MHz
Centralino
4,82 GB
28 MHz
CITV
1,76 GB
0 MHz
Client01
40 GB
0 MHz
DC
42,22 GB
28 MHz
EM
40 GB
0 MHz
Firewall
10,16 GB
115 MHz
Management
33,45 GB
260 MHz
OME
35 GB
0 MHz
PernixData
40 GB
0 MHz
28 Objects
Export
Copy
Recent Tasks
Task Name
Initiator
Queued For
Check new notifications
VMware vSphere Up...
717
Export List Contents
Export the list contents to a CSV file.
Objects:
All objects
Selected objects only
Columns:
Name
State
Status
Provisioned Space
Used Space
Host CPU
Host Mem
EVC Mode
HA Protection
VM Storage Policies Compliance
Managed By
Host
Select all columns
Generate CSV Report
Save
Cancel

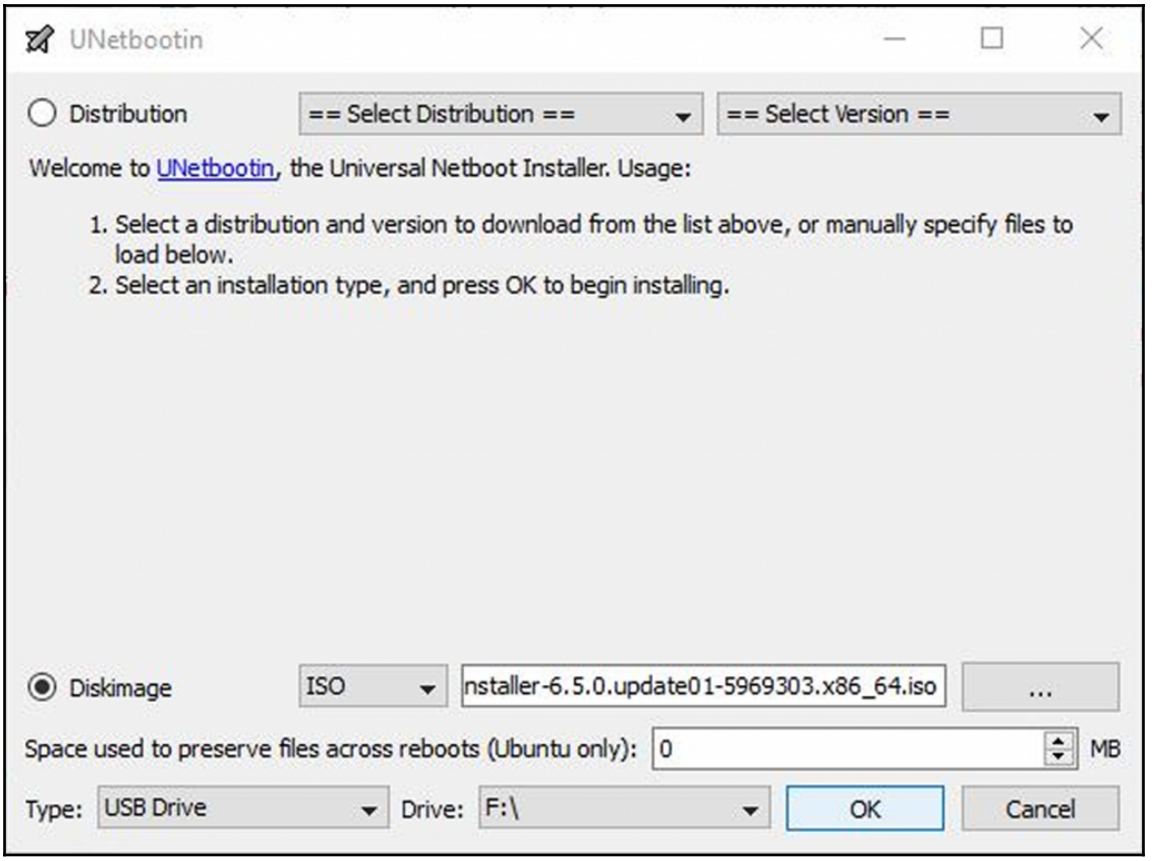

RVTools Health Check Properties
Generate Health Check Message If
CDROM drive is connected to the VM
Floppy drive is connected to the VM
VM has an active Snapshot
VMware tools status not "toolsOK"
Zombie files are found on the datastores
Inconsistent folder names are found
Free disk capacity in guest is less than
10
%
Free disk capacity on datastore is less than
10
%
Number of running virtual CPUs per core is > than
4,0
Number of running VMs per datastore > than
16
Reset
Ok

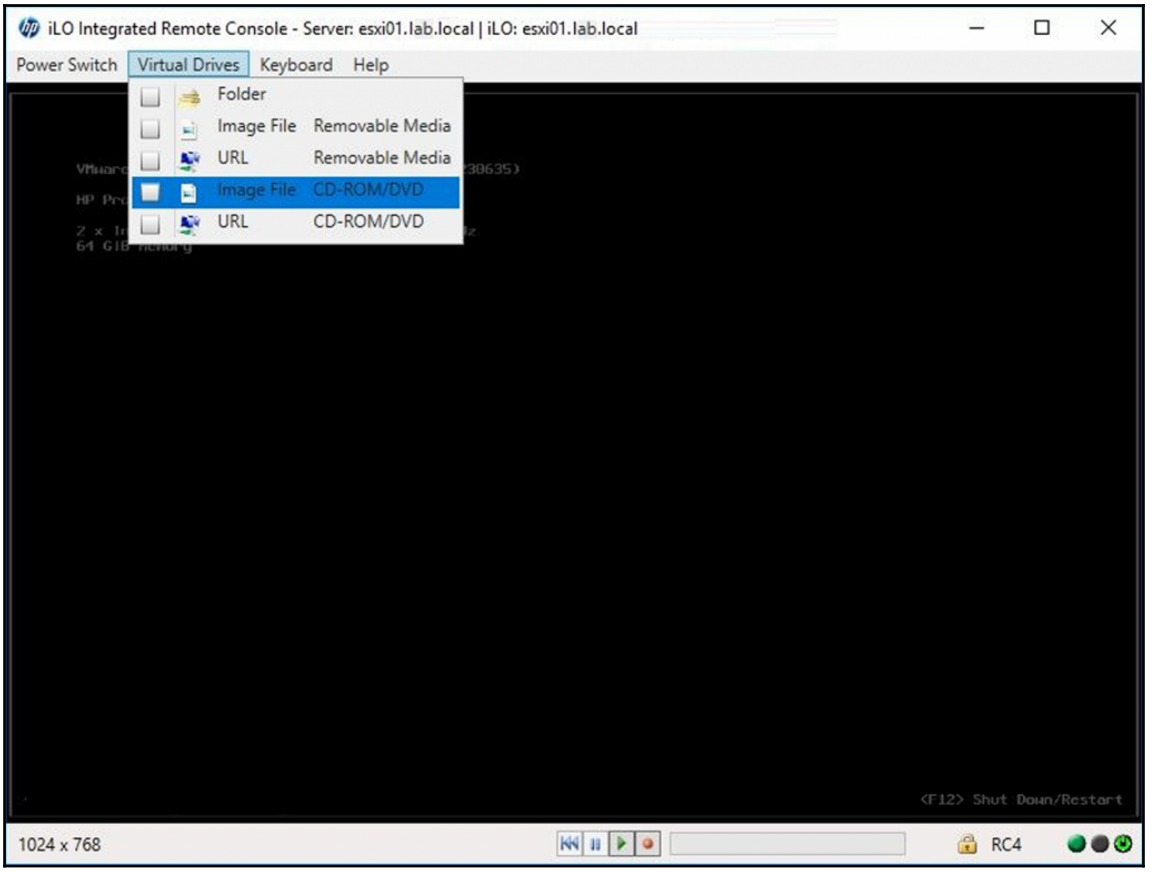

OK
0%
NA
0%
P3
9%
P1
49%
P2
42%
P1
P2
P3
OK
NA

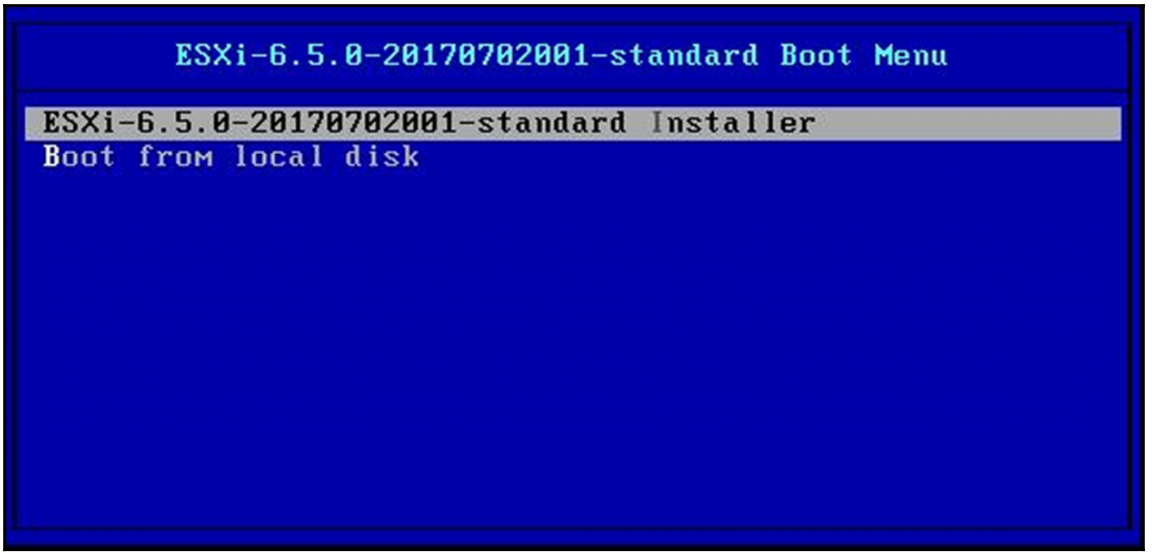
Chapter 4: Deployment Workflow and Component Installation

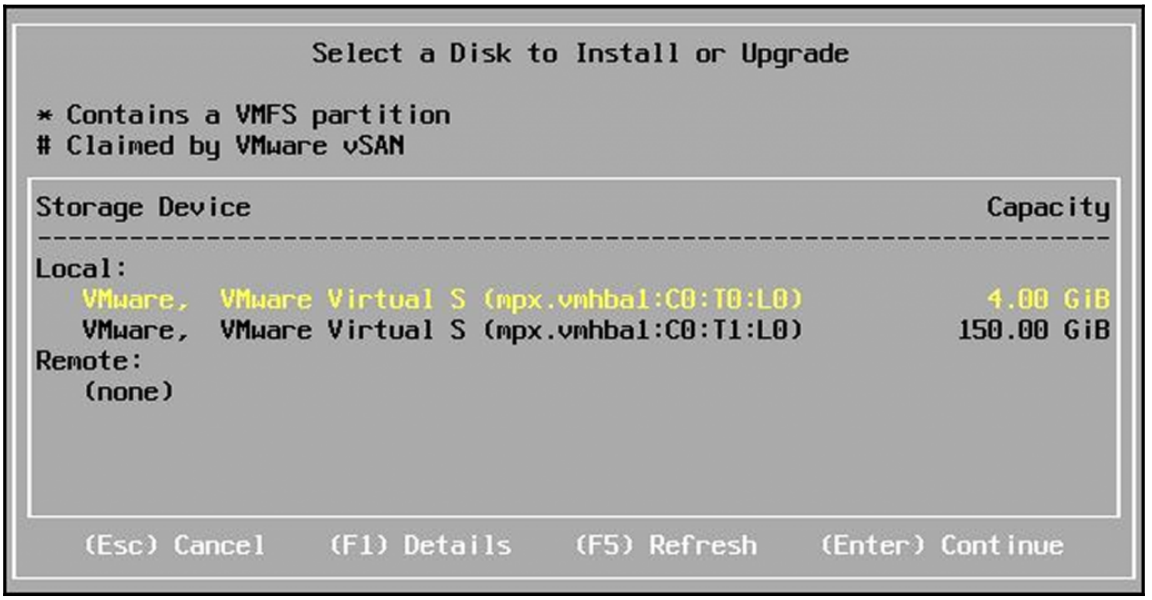


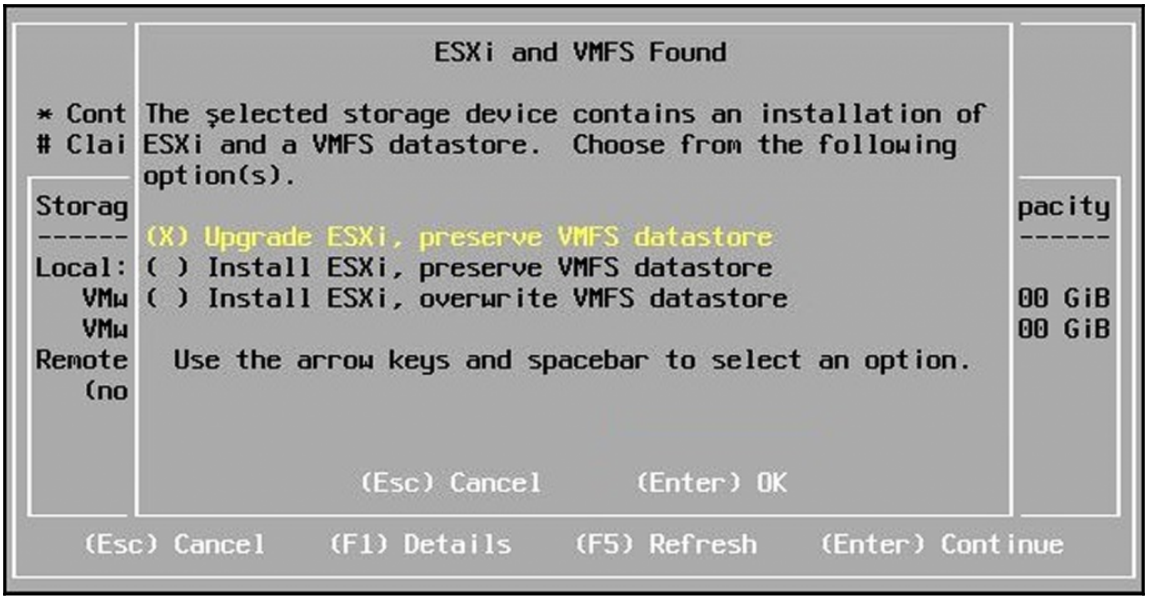

Search Compatibility Guide:
(e.g. compatibility or esx or 3.0)
All Listings
Search
What are you looking for:
Systems / Servers
Compatibility Guides
Help
Current Results: 0
Product Release Version:
All
ESXi 6.5 U1
ESXi 6.5
ESXi 6.0 U3
ESXi 6.0 U2
ESXi 6.0 U1
System Type:
All
Blade
Mother Board
Rack or Tower
Rackmount
Tower
Additional Criteria: (Collapse All)
Min Certified Memory:
All
Max Certified Memory:
All
Sockets:
All
Enhanced vMotion Capability Modes:
All
AMD Opteron™ Generation 1
AMD Opteron™ Generation 2
AMD Opteron™ Generation 3
AMD Opteron™ Generation 3 without 3DN
AMD Opteron™ Generation 4
Partner Name:
All
A10 Networks
Aberdeen LLC
Ace Computers
Acer Inc.
ACMA Computers
Action
Adlink technology inc.
Advantech Corporation
Alcatel-Lucent
AMAX Information Technologies
AMD (Advanced Micro Devices, Inc.)
Features:
All
Extended Configuration Maximum
Fault Tolerant(FT)
Legacy FT
SR-IOV
Trusted Execution Technology(TXT)
UEFI Secure Boot
vDGA_Linux
vDGA_Win
VM Direct Path IO
VM DirectPath IO for General Purpose GF
Max Cores per Socket:
All
CPU Series:
All
AMD Opteron 13xx Series
AMD Opteron 22xx Series
AMD Opteron 23xx Series
AMD Opteron 24xx Series
AMD Opteron 2xx Rev-C Series
AMD Opteron 2xx Rev-E (Dual Core) Seri
Fault Tolerant Compatible Sets:
All
AMD Bulldozer Generation
AMD Opteron™ Generation 3
AMD Piledriver Generation
Intel® Haswell Generation
Intel® Ivy-Bridge Generation
Intel® Nehalem Generation
Intel® Penryn Generation
Intel® Sandy-Bridge Generation
Keyword:
Posted Date Range:
All
Update and View Results
Reset

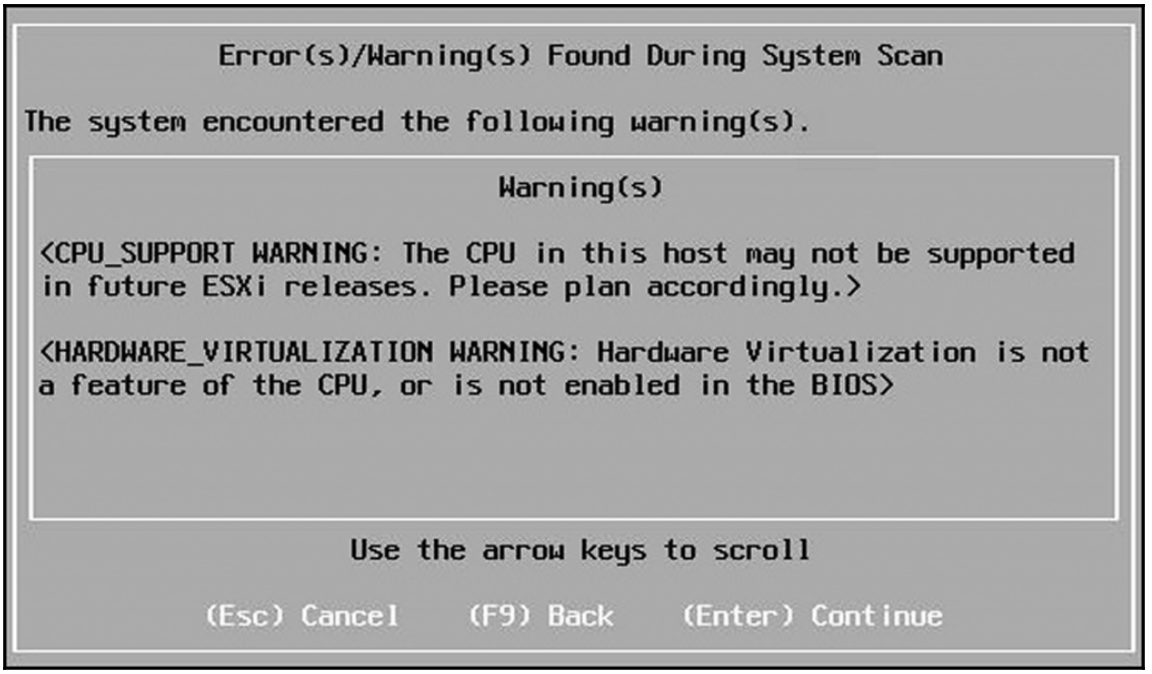

UNetbootin
Distribution
== Select Distribution ==
== Select Version ==
Welcome to UNetbootin, the Universal Netboot Installer. Usage:
1. Select a distribution and version to download from the list above, or manually specify files to load below.
2. Select an installation type, and press OK to begin installing.
Diskimage
ISO
nstaller-6.5.0.update01-5969303.x86_64.iso
...
Space used to preserve files across reboots (Ubuntu only):
0
MB
Type:
USB Drive
Drive:
F:\
OK
Cancel

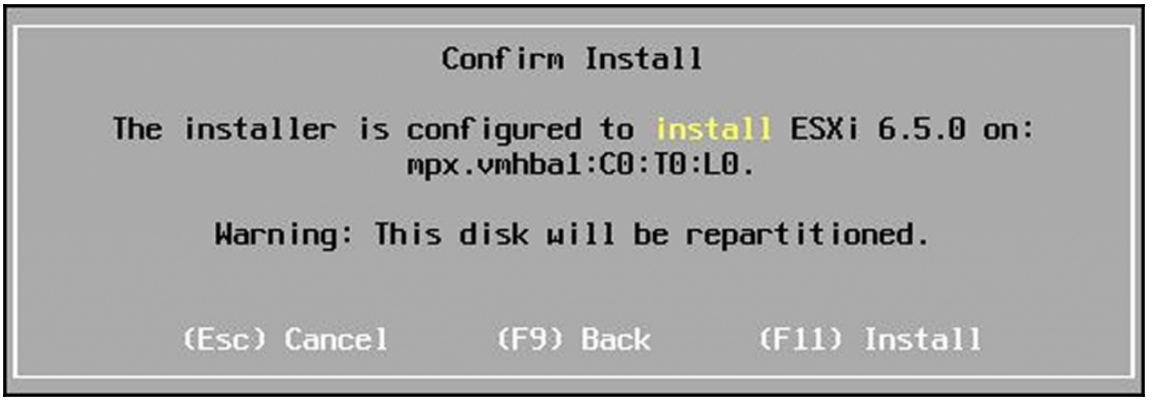

iLO Integrated Remote Console - Server: esxi01.lab.local | iLO: esxi01.lab.local
Power Switch
Virtual Drives
Keyboard
Help
Folder
Image File Removable Media
URL Removable Media
Image File CD-ROM/DVD
URL CD-ROM/DVD
<F12> Shut Down/Restart
1024 x 768
RC4

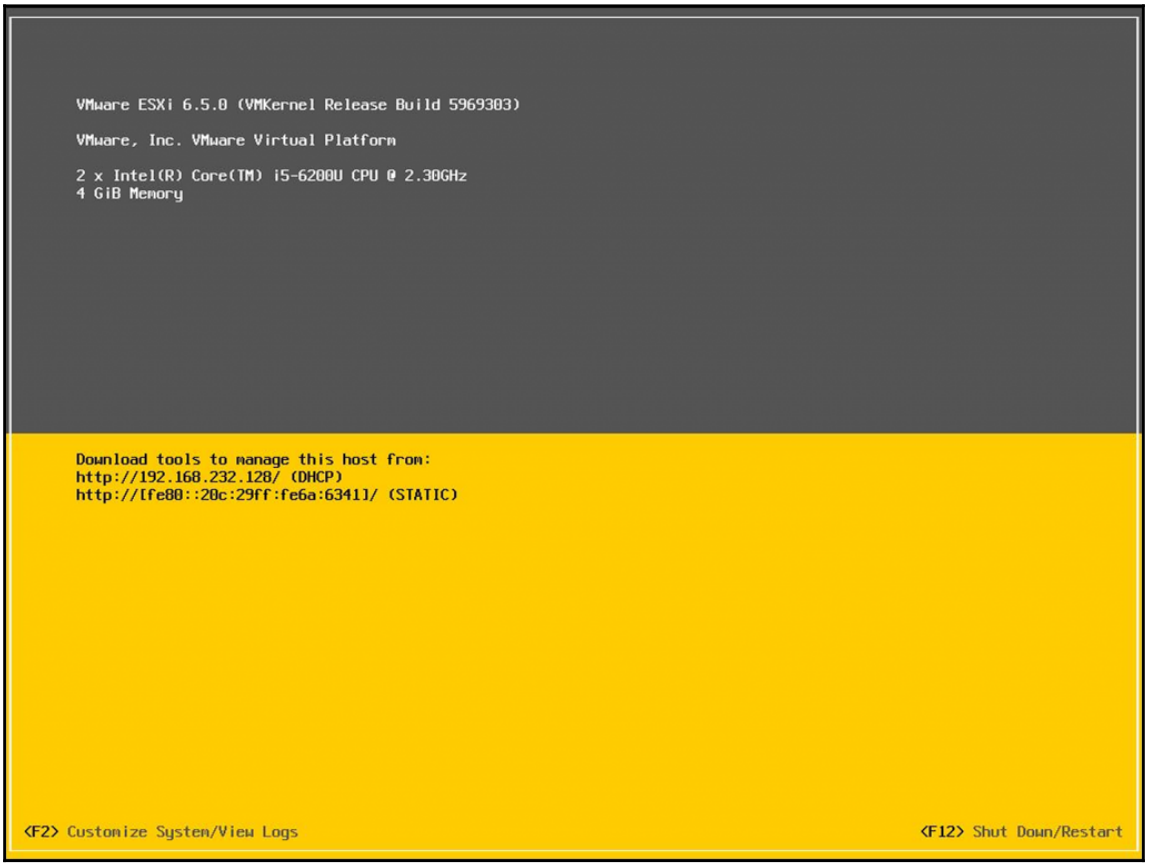

ESXi-6.5.0-20170702001-standard Boot Menu
ESXi-6.5.0-20170702001-standard Installer
Boot from local disk

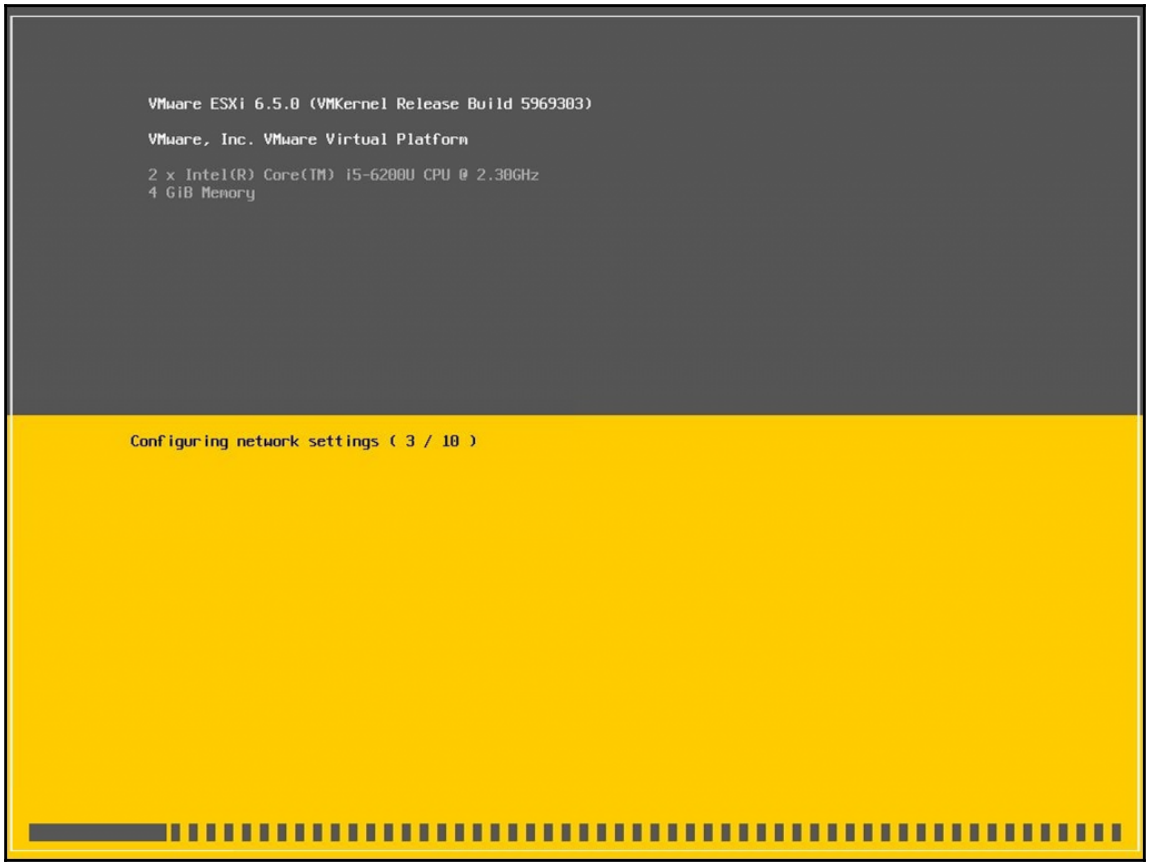

Select a Disk to Install or Upgrade
* Contains a VMFS partition
# Claimed by VMware vSAN
Storage Device
Capacity
Local:
VMware, VMware Virtual S (mpx.vmhba1:C0:T0:L0) 4.00 GiB
VMware, VMware Virtual S (mpx.vmhba1:C0:T1:L0) 150.00 GiB
Remote:
(none)
(Esc) Cancel
(F1) Details
(F5) Refresh
(Enter) Continue


ESXi and VMFS Found
The selected storage device contains an installation of ESXi and a VMFS datastore. Choose from the following option(s).
(X) Upgrade ESXi, preserve VMFS datastore
( ) Install ESXi, preserve VMFS datastore
( ) Install ESXi, overwrite VMFS datastore
Use the arrow keys and spacebar to select an option.
(Esc) Cancel
(Enter) OK
(Esc) Cancel
(F1) Details
(F5) Refresh
(Enter) Continue


Error(s)/Warning(s) Found During System Scan
The system encountered the following warning(s).
Warning(s)
<CPU_SUPPORT WARNING: The CPU in this host may not be supported in future ESXi releases. Please plan accordingly.>
<HARDWARE_VIRTUALIZATION WARNING: Hardware Virtualization is not a feature of the CPU, or is not enabled in the BIOS>
Use the arrow keys to scroll
(Esc) Cancel
(F9) Back
(Enter) Continue


Confirm Install
The installer is configured to install ESXi 6.5.0 on:
mpx.vmhba1:C0:T0:L0.
Warning: This disk will be repartitioned.
(Esc) Cancel
(F9) Back
(F11) Install


VMware ESXi 6.5.0 (VMKernel Release Build 5969303)
VMware, Inc. VMware Virtual Platform
2 x Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
4 GiB Memory
Download tools to manage this host from:
http://192.168.232.128/ (DHCP)
http://[fe80::20c:29ff:fe6a:6341]/ (STATIC)
<F2> Customize System/View Logs
<F12> Shut Down/Restart


VMware ESXi 6.5.0 (VMKernel Release Build 5969303)
VMware, Inc. VMware Virtual Platform
2 x Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
4 GiB Memory
Configuring network settings (3 / 10)

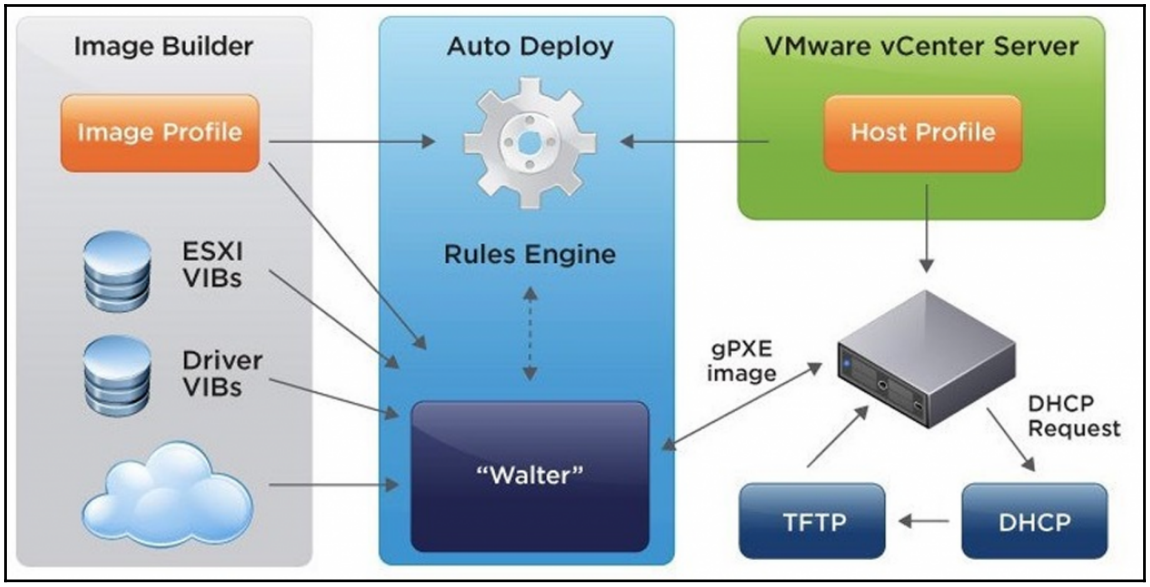
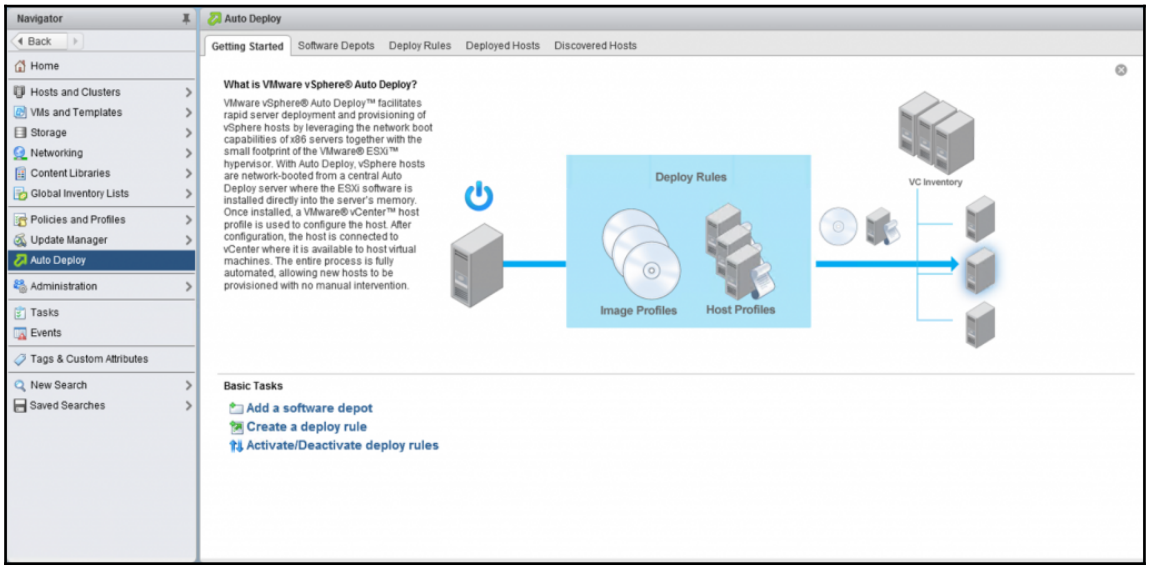
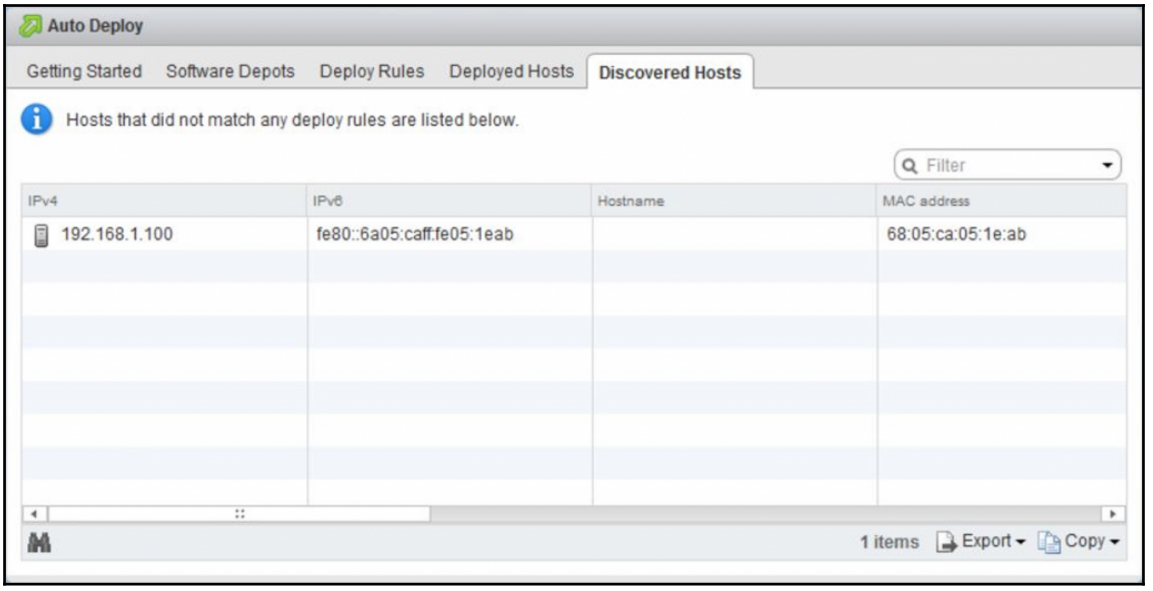
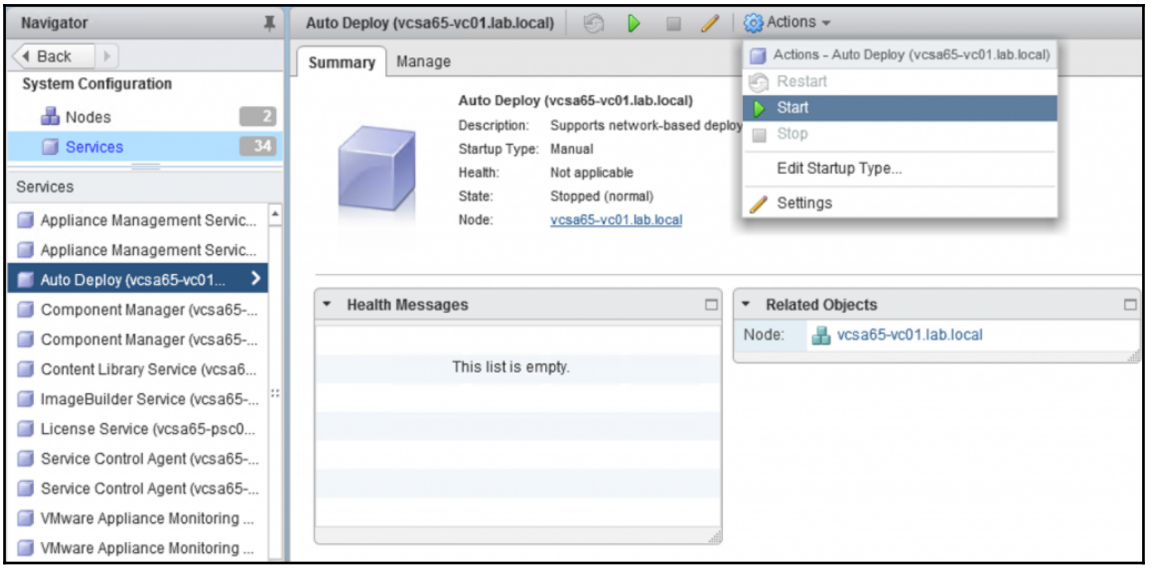
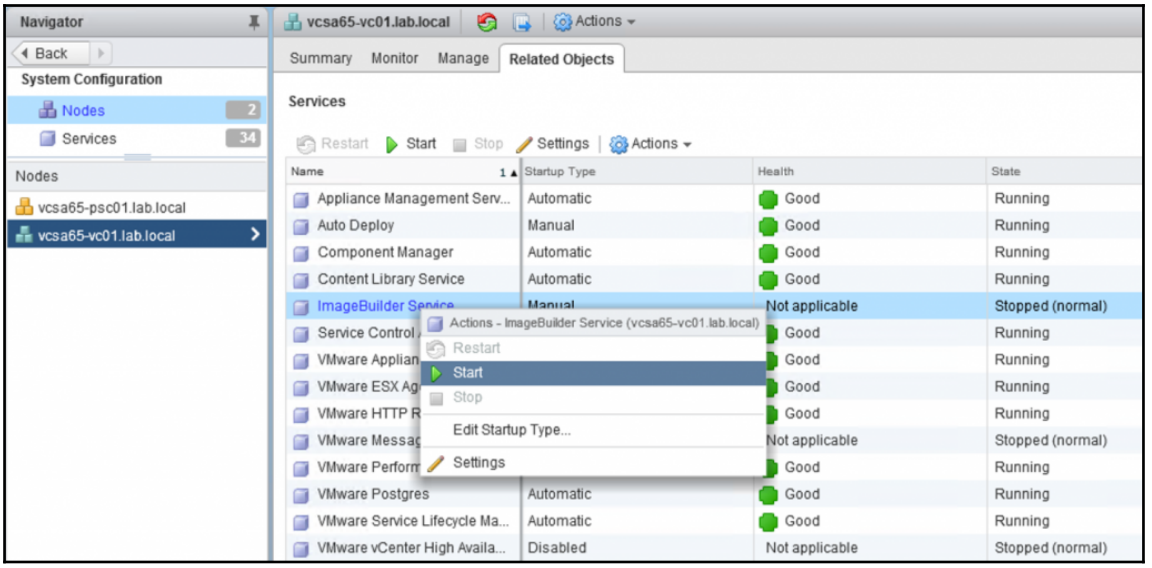


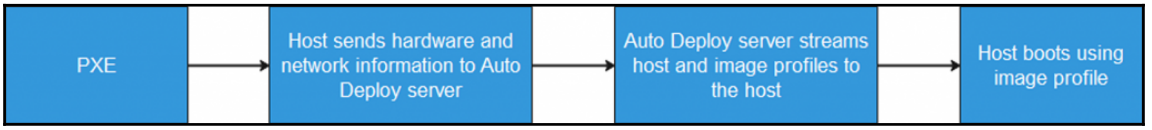
Image Builder
Image Profile
ESXI VIBs
Driver VIBs
Auto Deploy
Rules Engine
"Walter"
VMware vCenter Server
Host Profile
gPXE image
DHCP Request
TFTP
DHCP

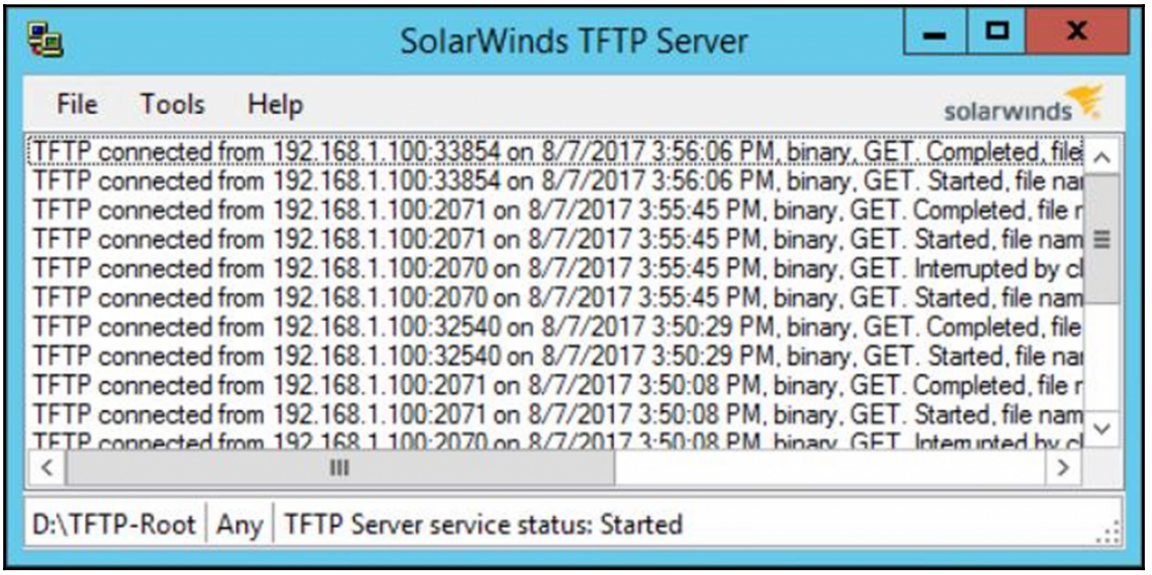

Navigator
Back
Home
Hosts and Clusters
VMs and Templates
Storage
Networking
Content Libraries
Global Inventory Lists
Policies and Profiles
Update Manager
Auto Deploy
Administration
Tasks
Events
Tags & Custom Attributes
New Search
Saved Searches
Auto Deploy
Getting Started
Software Depots
Deploy Rules
Deployed Hosts
Discovered Hosts
What is VMware vSphere® Auto Deploy?
VMware vSphere® Auto Deploy™ facilitates rapid server deployment and provisioning of vSphere hosts by leveraging the network boot capabilities of x86 servers together with the small footprint of the VMware® ESXi™ hypervisor. With Auto Deploy, vSphere hosts are network-booted from a central Auto Deploy server where the ESXi software is installed directly into the server's memory. Once installed, a VMware® vCenter™ host profile is used to configure the host. After configuration, the host is connected to vCenter where it is available to host virtual machines. The entire process is fully automated, allowing new hosts to be provisioned with no manual intervention.
Deploy Rules
Image Profiles
Host Profiles
VC Inventory
Basic Tasks
Add a software depot
Create a deploy rule
Activate/Deactivate deploy rules

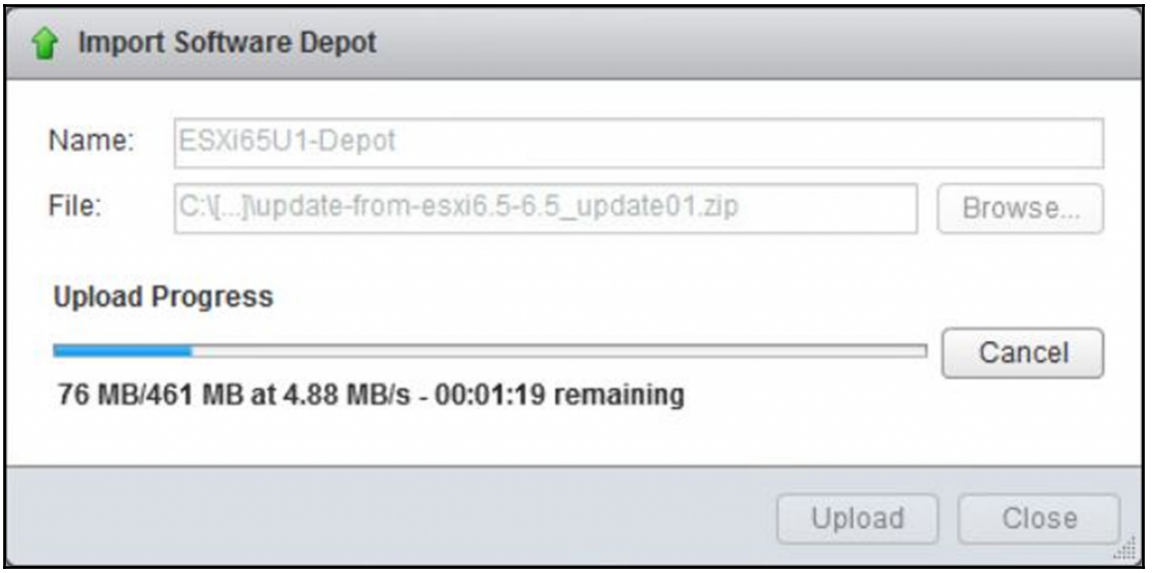

Auto Deploy
Getting Started
Software Depots
Deploy Rules
Deployed Hosts
Discovered Hosts
Hosts that did not match any deploy rules are listed below.
Filter
IPv4
IPv6
Hostname
MAC address
192.168.1.100
fe80::6a05:caff:fe05:1eab
68:05:ca:05:1e:ab
1 items
Export
Copy

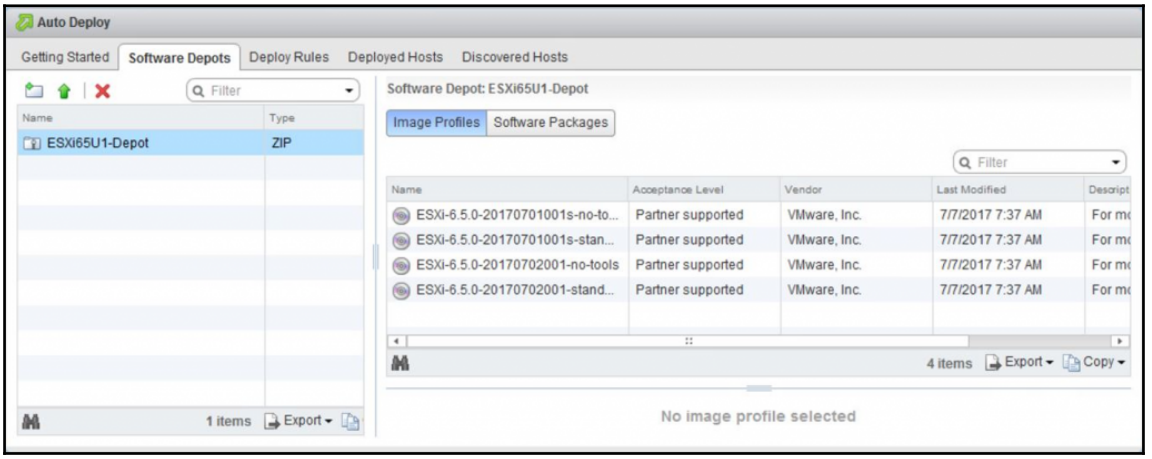

Navigator
Back
System Configuration
Nodes 2
Services 34
Services
Appliance Management Servic...
Appliance Management Servic...
Auto Deploy (vcsa65-vc01...
Component Manager (vcsa65-...
Component Manager (vcsa65-...
Content Library Service (vcsa6...
ImageBuilder Service (vcsa65-...
License Service (vcsa65-psc0...
Service Control Agent (vcsa65-...
Service Control Agent (vcsa65-...
VMware Appliance Monitoring ...
VMware Appliance Monitoring ...
Auto Deploy (vcsa65-vc01.lab.local)
Actions
Summary
Manage
Auto Deploy (vcsa65-vc01.lab.local)
Description: Supports network-based deploy
Startup Type: Manual
Health: Not applicable
State: Stopped (normal)
Node: vcsa65-vc01.lab.local
Actions - Auto Deploy (vcsa65-vc01.lab.local)
Restart
Start
Stop
Edit Startup Type...
Settings
Health Messages
This list is empty.
Related Objects
Node: vcsa65-vc01.lab.local

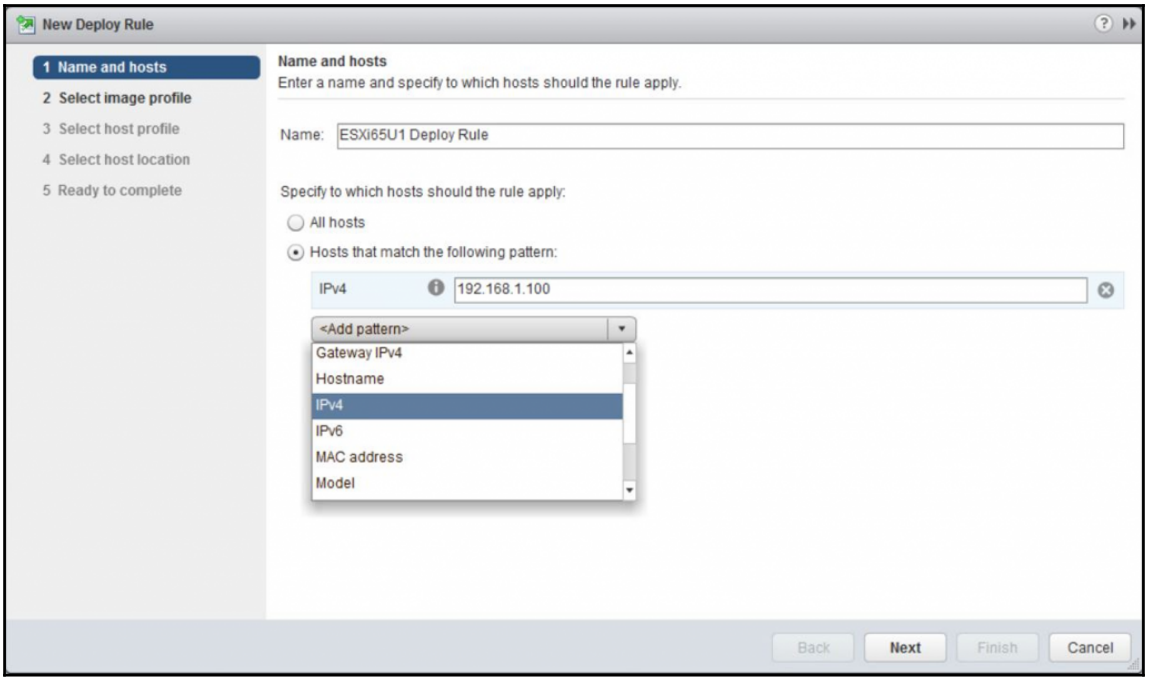

Navigator
Back
System Configuration
Nodes
2
Services
34
Nodes
vcsa65-psc01.lab.local
vcsa65-vc01.lab.local
vcsa65-vc01.lab.local
Actions
Summary
Monitor
Manage
Related Objects
Services
Restart
Start
Stop
Settings
Actions
Name
Startup Type
Health
State
Appliance Management Serv...
Automatic
Good
Running
Auto Deploy
Manual
Good
Running
Component Manager
Automatic
Good
Running
Content Library Service
Automatic
Good
Running
ImageBuilder Service
Manual
Not applicable
Stopped (normal)
Service Control
Good
Running
VMware Applian
Good
Running
VMware ESX Ag
Good
Running
VMware HTTP R
Good
Running
VMware Messag
Not applicable
Stopped (normal)
VMware Perform
Good
Running
VMware Postgres
Automatic
Good
Running
VMware Service Lifecycle Ma...
Automatic
Good
Running
VMware vCenter High Availa...
Disabled
Not applicable
Stopped (normal)
Actions - ImageBuilder Service (vcsa65-vc01.lab.local)
Restart
Start
Stop
Edit Startup Type...
Settings

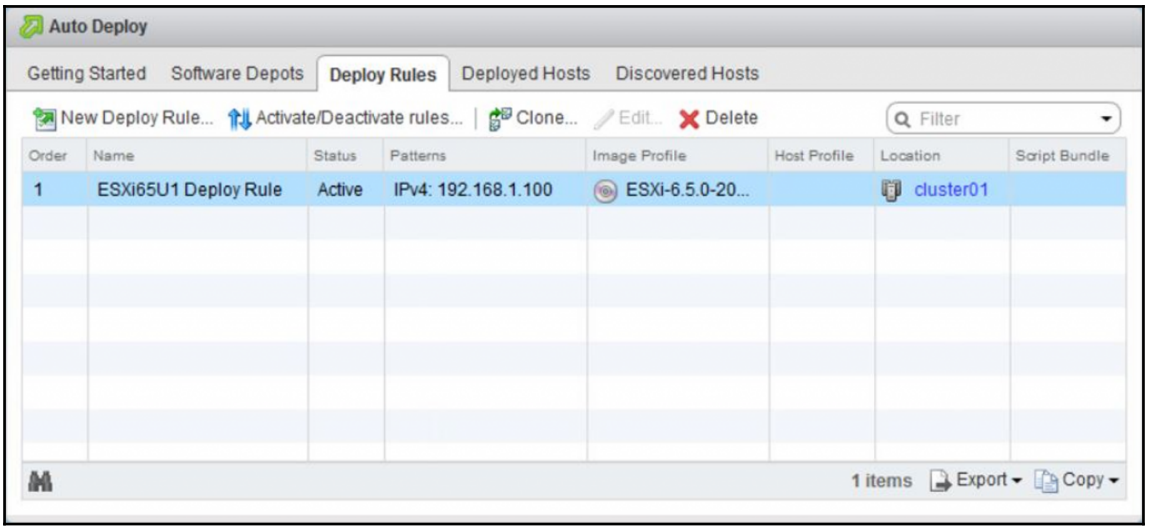

PXE
Host sends hardware and network information to Auto Deploy server
Auto Deploy server streams host and image profiles to the host
Host boots using image profile


SolarWinds TFTP Server
File
Tools
Help
solarwinds
TFTP connected from 192.168.1.100:33854 on 8/7/2017 3:56:06 PM, binary, GET. Completed, file
TFTP connected from 192.168.1.100:33854 on 8/7/2017 3:56:06 PM, binary, GET. Started, file na
TFTP connected from 192.168.1.100:2071 on 8/7/2017 3:55:45 PM, binary, GET. Completed, file r
TFTP connected from 192.168.1.100:2071 on 8/7/2017 3:55:45 PM, binary, GET. Started, file nam
TFTP connected from 192.168.1.100:2070 on 8/7/2017 3:55:45 PM, binary, GET. Interrupted by cl
TFTP connected from 192.168.1.100:2070 on 8/7/2017 3:55:45 PM, binary, GET. Started, file nam
TFTP connected from 192.168.1.100:32540 on 8/7/2017 3:50:29 PM, binary, GET. Completed, file
TFTP connected from 192.168.1.100:32540 on 8/7/2017 3:50:29 PM, binary, GET. Started, file na
TFTP connected from 192.168.1.100:2071 on 8/7/2017 3:50:08 PM, binary, GET. Completed, file r
TFTP connected from 192.168.1.100:2071 on 8/7/2017 3:50:08 PM, binary, GET. Started, file nam
TFTP connected from 192.168.1.100:2070 on 8/7/2017 3:50:08 PM, binary, GET. Interrupted by cl
D:\TFTP-Root
Any
TFTP Server service status: Started


Import Software Depot
Name:
ESXi65U1-Depot
File:
C:\[...]\update-from-esxi6.5-6.5_update01.zip
Browse...
Upload Progress
Cancel
76 MB/461 MB at 4.88 MB/s - 00:01:19 remaining
Upload
Close

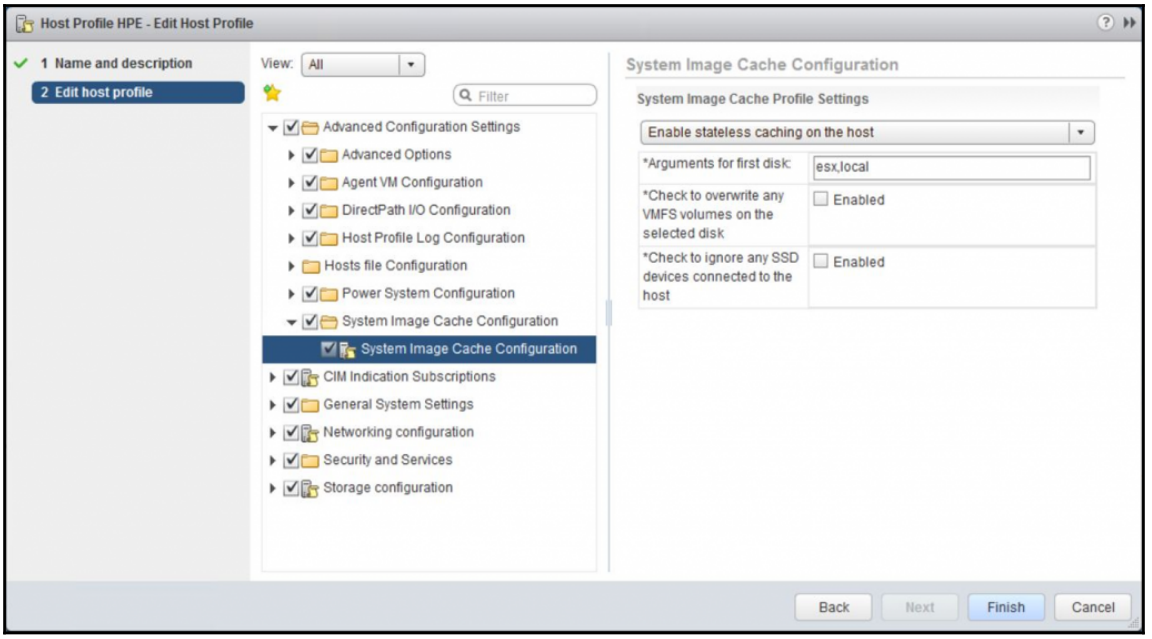

Auto Deploy
Getting Started
Software Depots
Deploy Rules
Deployed Hosts
Discovered Hosts
Filter
Name
Type
ESXi65U1-Depot
ZIP
1 items
Export
Software Depot: ESXi65U1-Depot
Image Profiles
Software Packages
Filter
Name
Acceptance Level
Vendor
Last Modified
ESXi-6.5.0-20170701001s-no-to...
Partner supported
VMware, Inc.
7/7/2017 7:37 AM
ESXi-6.5.0-20170701001s-stan...
Partner supported
VMware, Inc.
7/7/2017 7:37 AM
ESXi-6.5.0-20170702001-no-tools
Partner supported
VMware, Inc.
7/7/2017 7:37 AM
ESXi-6.5.0-20170702001-stand...
Partner supported
VMware, Inc.
7/7/2017 7:37 AM
4 items
Export
Copy
No image profile selected

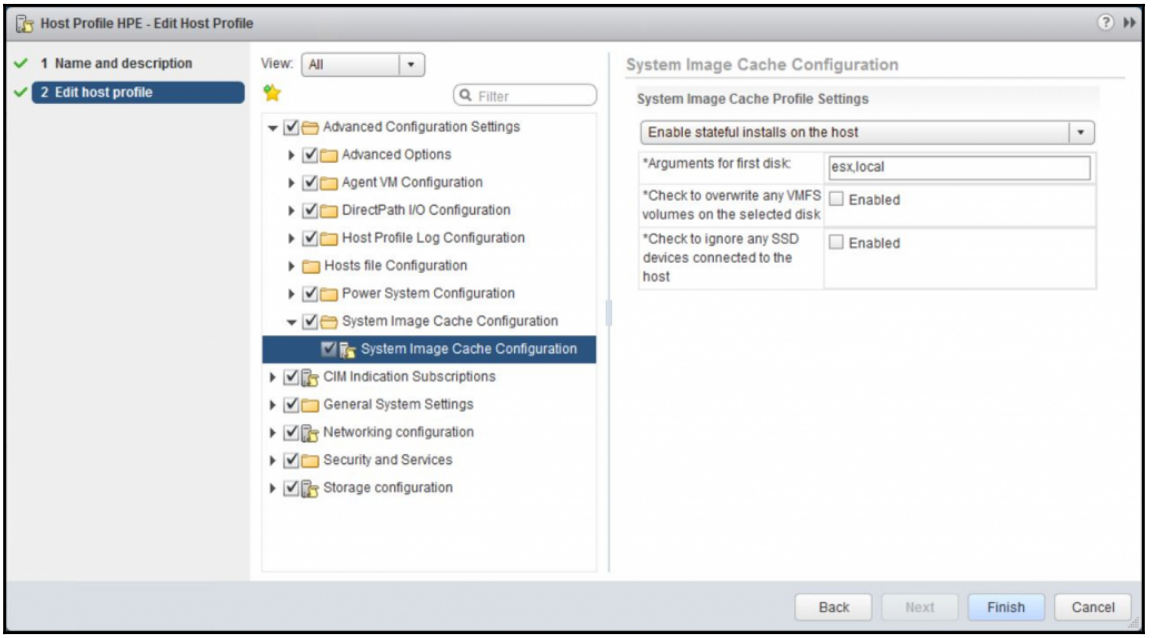

New Deploy Rule
1 Name and hosts
2 Select image profile
3 Select host profile
4 Select host location
5 Ready to complete
Name and hosts
Enter a name and specify to which hosts should the rule apply.
Name: ESXi65U1 Deploy Rule
Specify to which hosts should the rule apply:
All hosts
Hosts that match the following pattern:
IPv4
192.168.1.100
<Add pattern>
Gateway IPv4
Hostname
IPv4
IPv6
MAC address
Model
Back
Next
Finish
Cancel

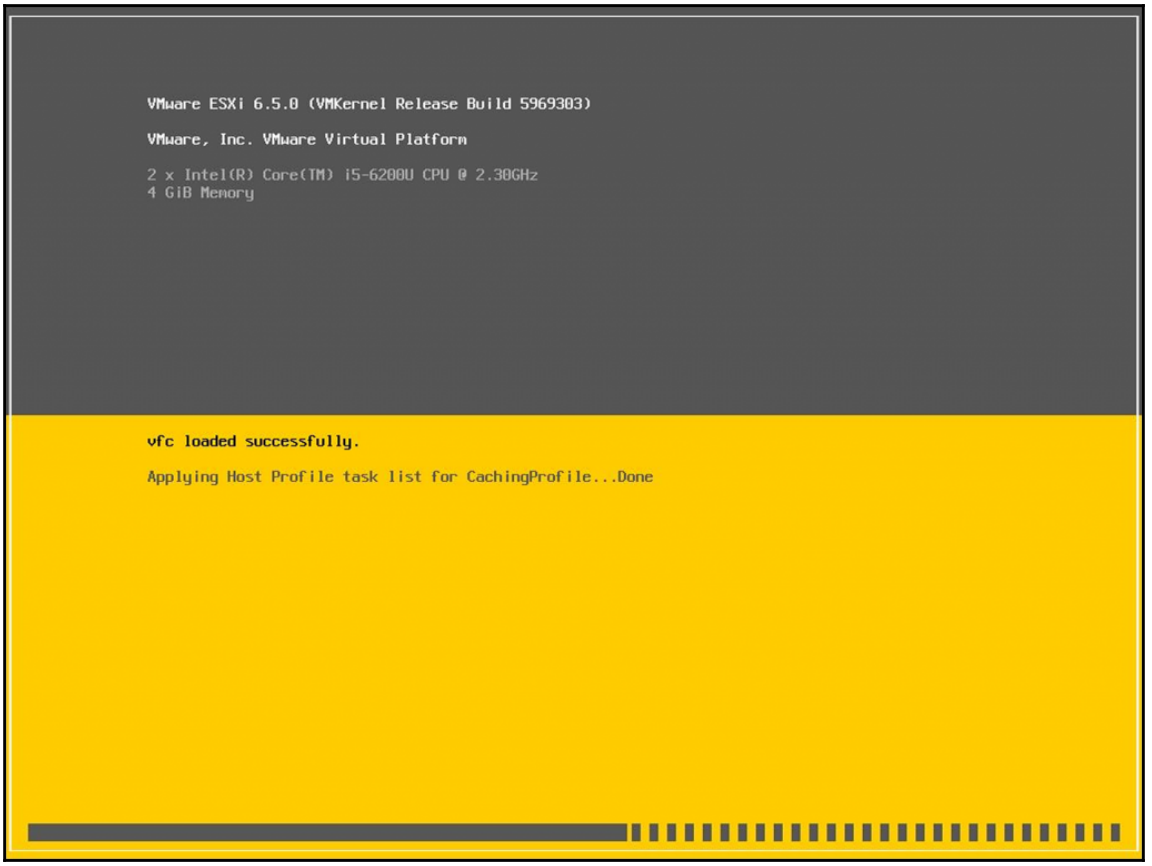

Auto Deploy
Getting Started
Software Depots
Deploy Rules
Deployed Hosts
Discovered Hosts
New Deploy Rule...
Activate/Deactivate rules...
Clone...
Edit...
Delete
Filter
Order
Name
Status
Patterns
Image Profile
Host Profile
Location
Script Bundle
1
ESXi65U1 Deploy Rule
Active
IPv4: 192.168.1.100
ESXi-6.5.0-20...
cluster01
1 items
Export
Copy

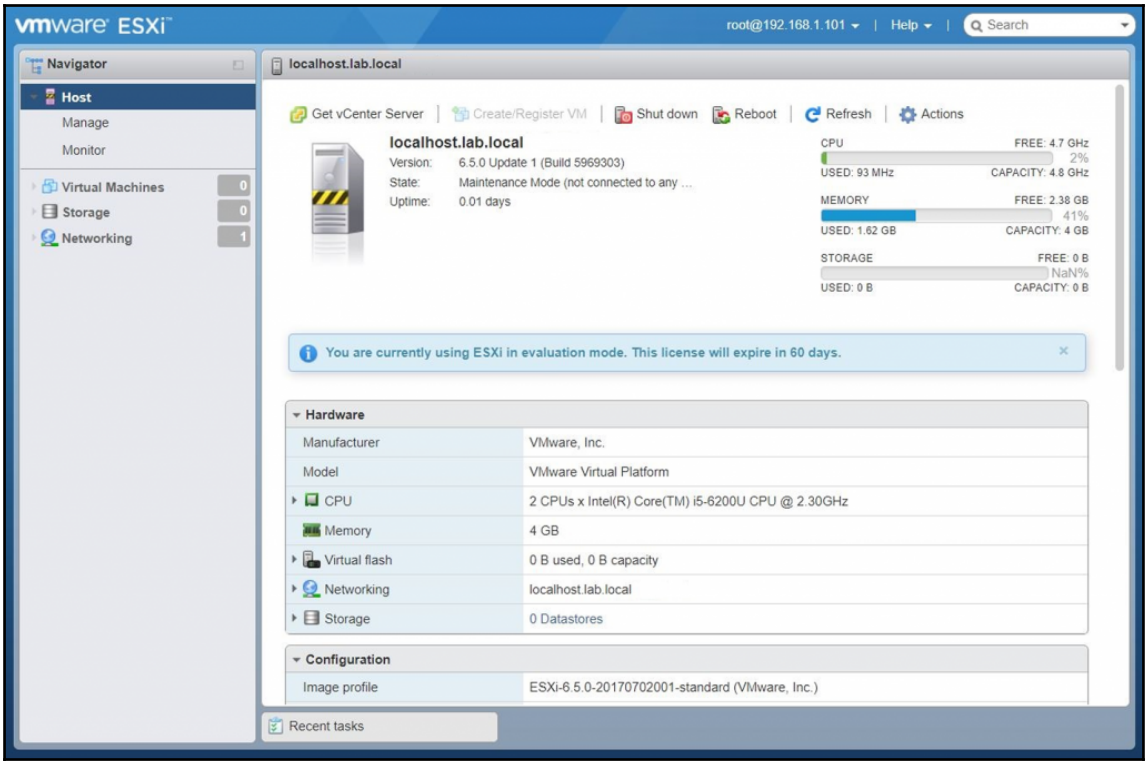
```
CLIENT IP: 192.168.1.100  MASK: 255.255.255.0  DHCP IP: 192.168.10.120
GATEWAY IP: 192.168.1.2
PXE->EB: !PXE at 9E8E:0070, entry point at 9E8E:0106
         UNDI code segment 9E8E:0BCE, data segment 98F8:5960 (611-638kB)
         UNDI device is PCI 02:01.0, type DIX+802.3
         611kB free base memory after PXE unload
iPXE initialising devices...ok


VMware iPXE Build: 4446055 (undionly.kpxe.vmw-hardwired)
iPXE 1.0.0-vmw (4750) -- Open Source Network Boot Firmware -- http://ipxe.org
Features: DNS HTTP HTTPS iSCSI TFTP AoE ELF MBOOT PXE bzImage COMBOOT Menu PXEXT


net0: 00:0c:29:55:06:68 using undionly on UNDI-PCI02:01.0 (open)
  [Link:up, TX:0 TXE:0 RX:0 RXE:0]
Configuring (net0 00:0c:29:55:06:68)..... ok
net0: 192.168.1.100/255.255.255.0 gw 192.168.1.2
net0: fe80::20c:29ff:fe55:668/64
Next server: 192.168.10.111
Filename: tramp
tftp://192.168.10.111/tramp... ok
tramp : 109 bytes [script]
https://192.168.10.40:6501/vmw/rbd/tramp... ok
/vmw/rbd/host-register?bootmac=00%3A0c%3A29%3A55%3A06%3A68..._
```

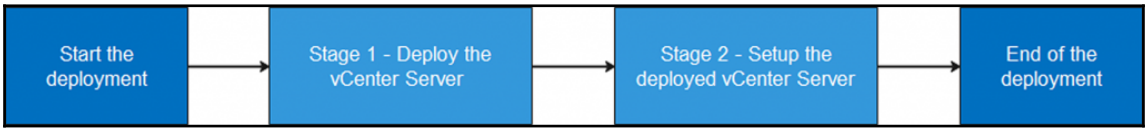
```
                                Loading VMware ESXi
Loading /vmw/cache/13/cfa6e33fdc51345c37ea5d0aa1c0b2/tboot.d192b9b707fdb90d946128db018aa900
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/b.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/jumpstrt.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/useropts.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/features.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/k.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/chardevs.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/13/cfa6e33fdc51345c37ea5d0aa1c0b2/a.d192b9b707fdb90d946128db018aa900
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/user.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/74/7bb1733efa8377b5393366bdc24822/vc_intel.0c4263c20c8ce00c5e534341838d30c4
Loading /vmw/cache/74/7bb1733efa8377b5393366bdc24822/vc_amd.0c4263c20c8ce00c5e534341838d30c4
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/sb.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/9e/e553dc75514e12a30b9186bf4a8457/s.bf30ba460844a0b0276f56e6a6d1773e
Loading /vmw/cache/01/532a30186aa1dfb2359737516a130d/ata-liba.1938a85cc9879d216cee2179cd1c689a
Loading /vmw/cache/f2/d837ae07319426504551868126022 8/ata-pata.09bb7c36fceb189554fbdc1053aee861
Loading /vmw/cache/29/8a3a82418837fdf87bdf55bf68ad3c/ata-pata.512afe0fee99a8c020fde51615226294
Loading /vmw/cache/f2/518ef46b5c62a8a58ecec41cd5114e/ata-pata.50ffc236b17ec698e80c180a4d29f0de
Loading /vmw/cache/89/4bdd1b33318baf50ddcea33b081bfe/ata-pata.03b195c10cd5cf89993a89d96334ff4a
Loading /vmw/cache/20/2f6156fb83449f9bcdd9bcc70c0161/ata-pata.b93ee0cbe8758bdb562d9f4d7dd0a87e
Loading /vmw/cache/39/8338d0b935c45a6ec1d05b853ade02/ata-pata.2a4091e57d8969730d74d2ff48768a60
Loading /vmw/cache/19/0d8a6bd76717d4235261c7aab0707a/ata-pata.1f95817e9e93c52cb242c28d24e84904
Loading /vmw/cache/ba/e113f87de6f2ee14700ef417fd5ff5/ata-pata.b9b175ecf079062f2497dc467df56820
Loading /vmw/cache/23/c566d689ff3e5dce0a2cf383fcbb77/block-cc.261f0f2c1c1643d0dd8b9c544d17c2a6
Loading /vmw/cache/8a/52577a4ab239271a697fc5693ec1cd/char-ran.6508ff33360c6baa324661e0c45ce7d5
```

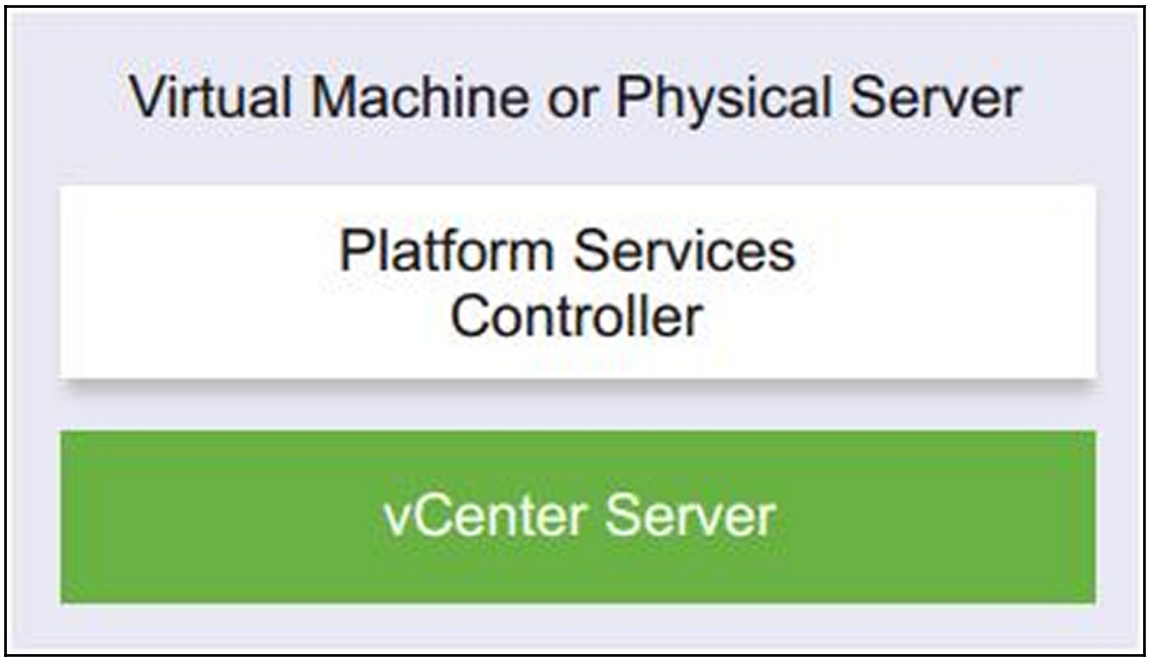

Host Profile HPE - Edit Host Profile
1 Name and description
2 Edit host profile
View: All
Filter
Advanced Configuration Settings
Advanced Options
Agent VM Configuration
DirectPath I/O Configuration
Host Profile Log Configuration
Hosts file Configuration
Power System Configuration
System Image Cache Configuration
System Image Cache Configuration
CIM Indication Subscriptions
General System Settings
Networking configuration
Security and Services
Storage configuration
System Image Cache Configuration
System Image Cache Profile Settings
Enable stateless caching on the host
*Arguments for first disk:
esx,local
*Check to overwrite any VMFS volumes on the selected disk
Enabled
*Check to ignore any SSD devices connected to the host
Enabled
Back
Next
Finish
Cancel

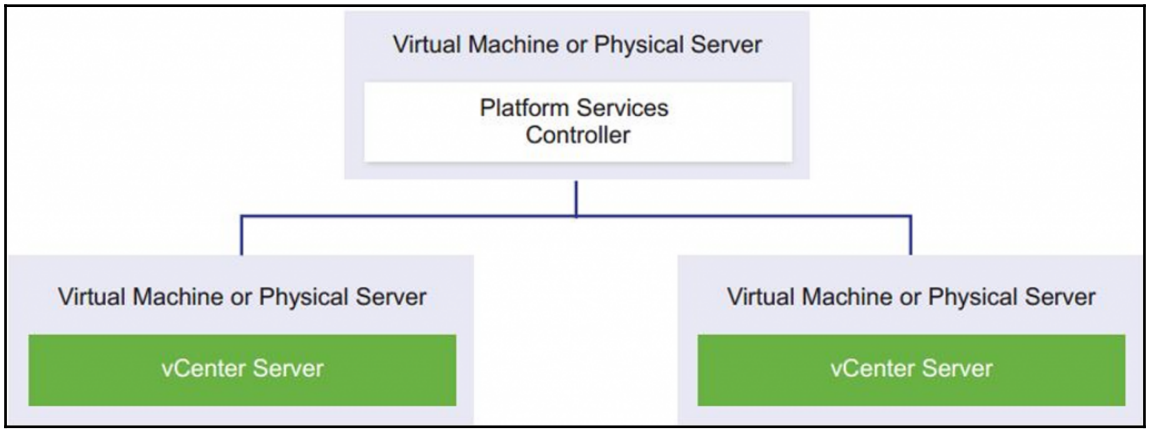

Host Profile HPE - Edit Host Profile
1 Name and description
2 Edit host profile
View: All
Filter
Advanced Configuration Settings
Advanced Options
Agent VM Configuration
DirectPath I/O Configuration
Host Profile Log Configuration
Hosts file Configuration
Power System Configuration
System Image Cache Configuration
System Image Cache Configuration
CIM Indication Subscriptions
General System Settings
Networking configuration
Security and Services
Storage configuration
System Image Cache Configuration
System Image Cache Profile Settings
Enable stateful installs on the host
*Arguments for first disk:
esx,local
*Check to overwrite any VMFS volumes on the selected disk
Enabled
*Check to ignore any SSD devices connected to the host
Enabled
Back
Next
Finish
Cancel

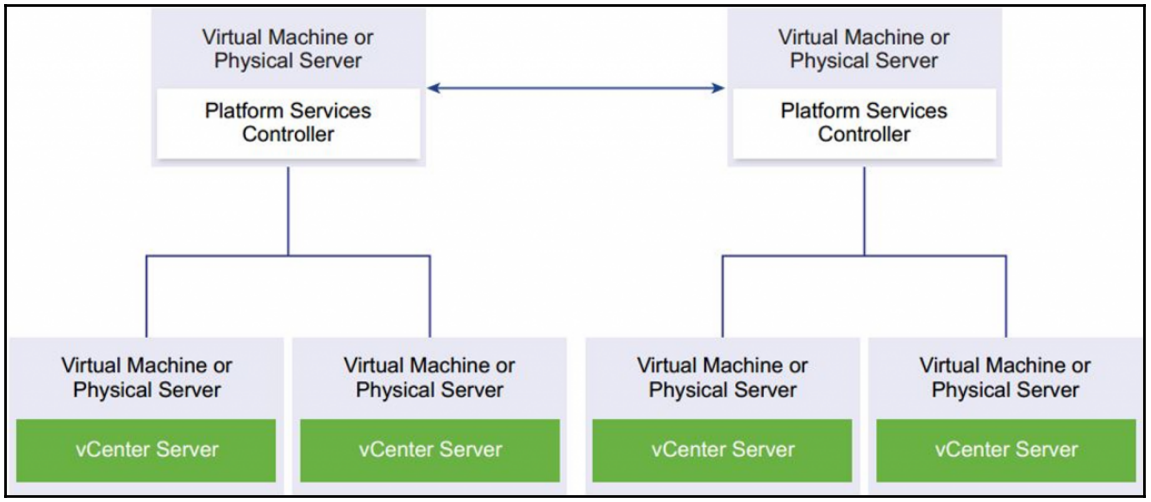

VMware ESXi 6.5.0 (VMKernel Release Build 5969303)
VMware, Inc. VMware Virtual Platform
2 x Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
4 GiB Memory
vfc loaded successfully.
Applying Host Profile task list for CachingProfile...Done

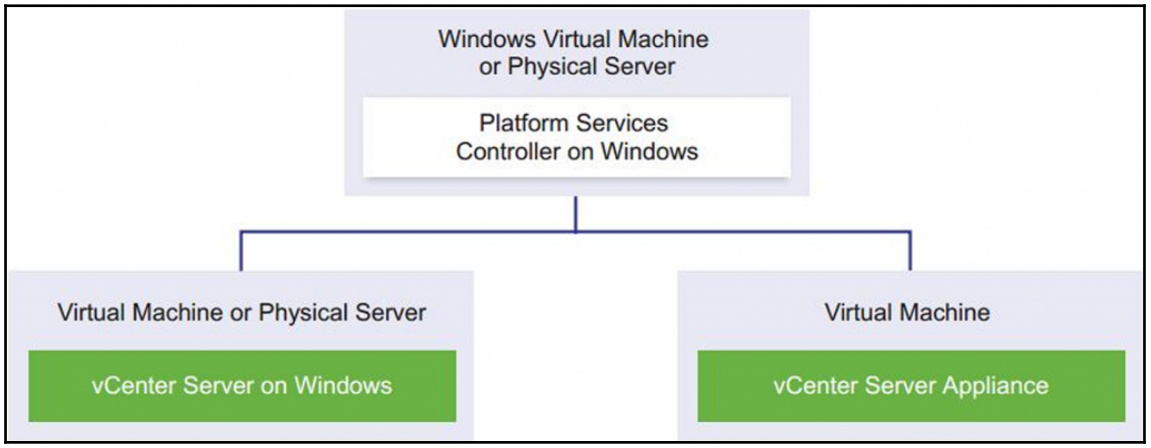

vmware ESXi
root@192.168.1.101
Help
Search
Navigator
Host
Manage
Monitor
Virtual Machines
Storage
Networking
localhost.lab.local
Get vCenter Server
Create/Register VM
Shut down
Reboot
Refresh
Actions
localhost.lab.local
Version: 6.5.0 Update 1 (Build 5969303)
State: Maintenance Mode (not connected to any ...
Uptime: 0.01 days
CPU
FREE: 4.7 GHz
2%
USED: 93 MHz
CAPACITY: 4.8 GHz
MEMORY
FREE: 2.38 GB
41%
USED: 1.62 GB
CAPACITY: 4 GB
STORAGE
FREE: 0 B
NaN%
USED: 0 B
CAPACITY: 0 B
You are currently using ESXi in evaluation mode. This license will expire in 60 days.
Hardware
Manufacturer
VMware, Inc.
Model
VMware Virtual Platform
CPU
2 CPUs x Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
Memory
4 GB
Virtual flash
0 B used, 0 B capacity
Networking
localhost.lab.local
Storage
0 Datastores
Configuration
Image profile
ESXi-6.5.0-20170702001-standard (VMware, Inc.)
Recent tasks

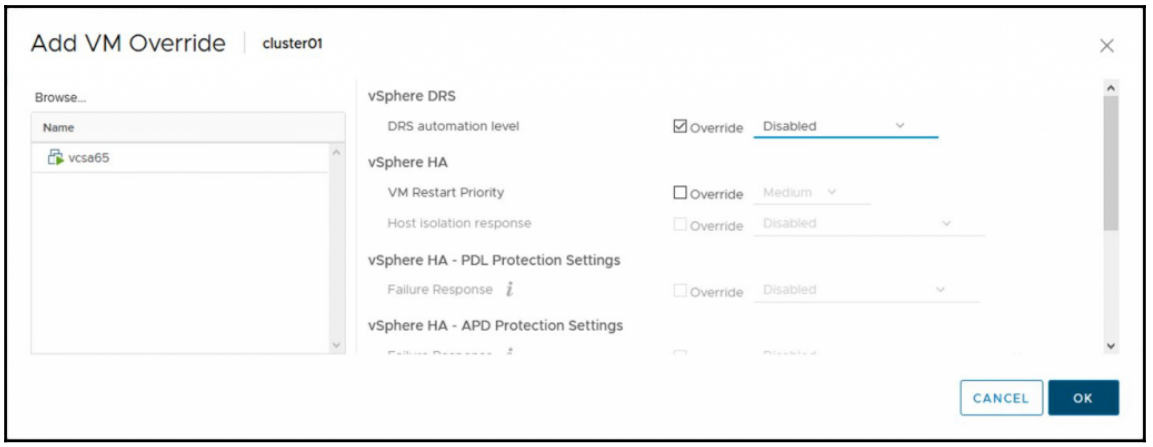

Start the deployment
Stage 1 - Deploy the vCenter Server
Stage 2 - Setup the deployed vCenter Server
End of the deployment

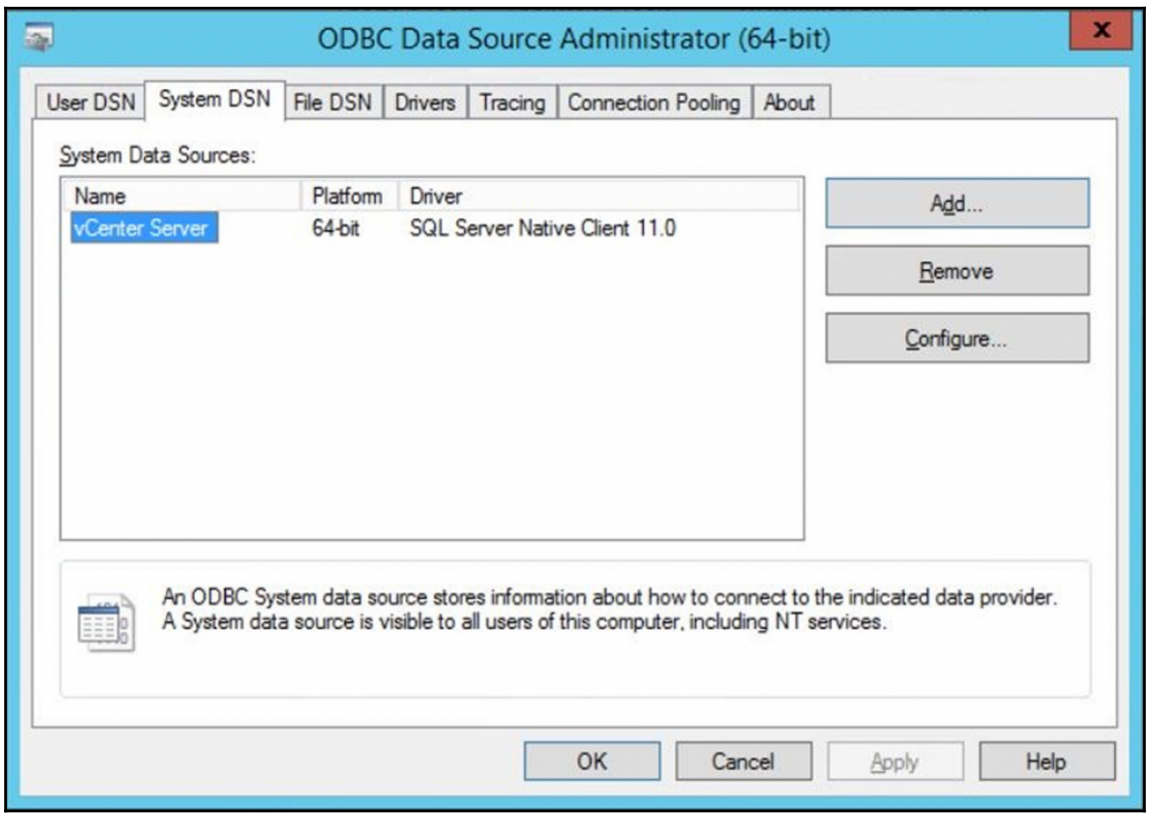

Virtual Machine or Physical Server
Platform Services Controller
vCenter Server

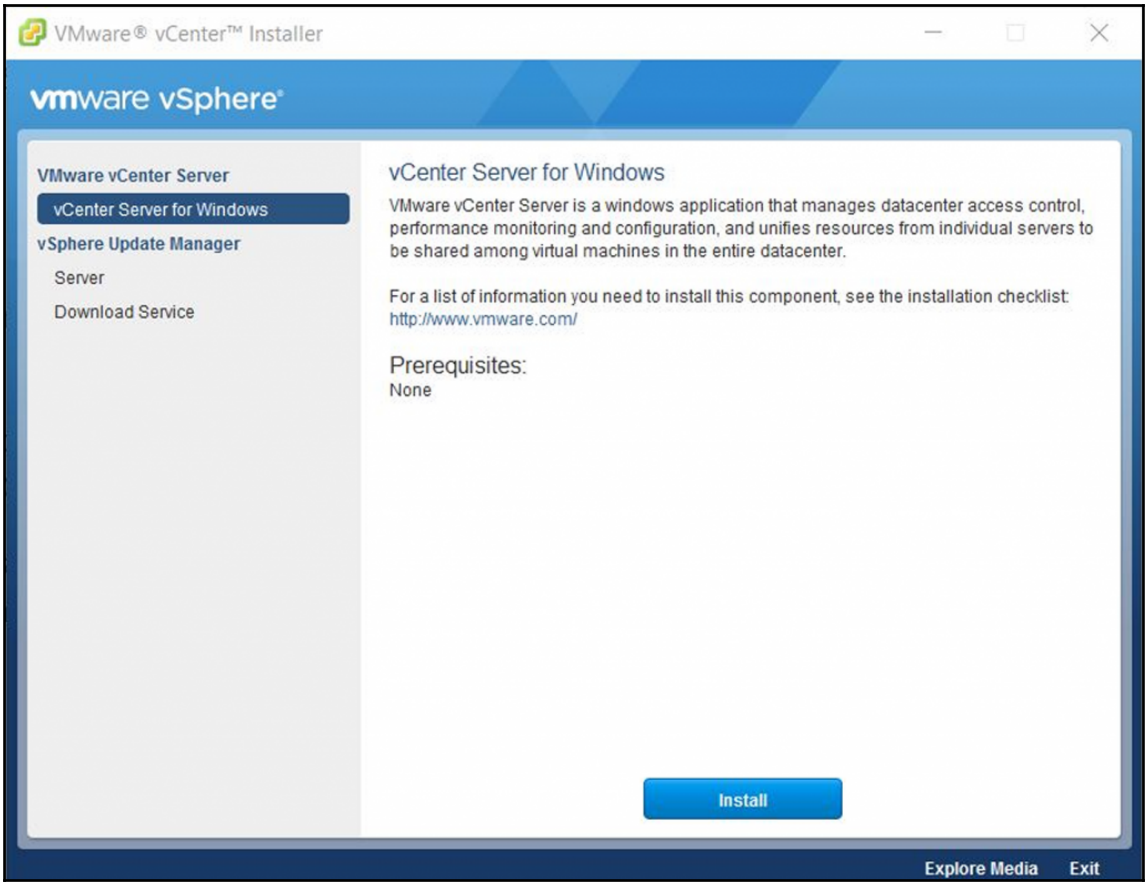

Virtual Machine or Physical Server
Platform Services Controller
Virtual Machine or Physical Server
vCenter Server
Virtual Machine or Physical Server
vCenter Server

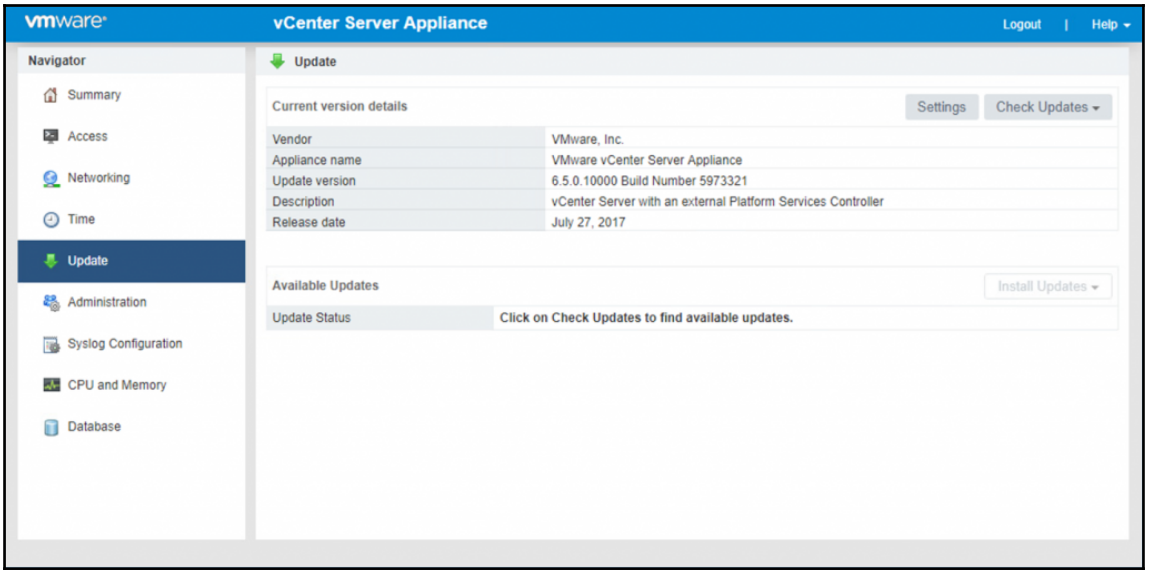

Virtual Machine or Physical Server
Platform Services Controller
Virtual Machine or Physical Server
Platform Services Controller
Virtual Machine or Physical Server
vCenter Server
Virtual Machine or Physical Server
vCenter Server
Virtual Machine or Physical Server
vCenter Server
Virtual Machine or Physical Server
vCenter Server

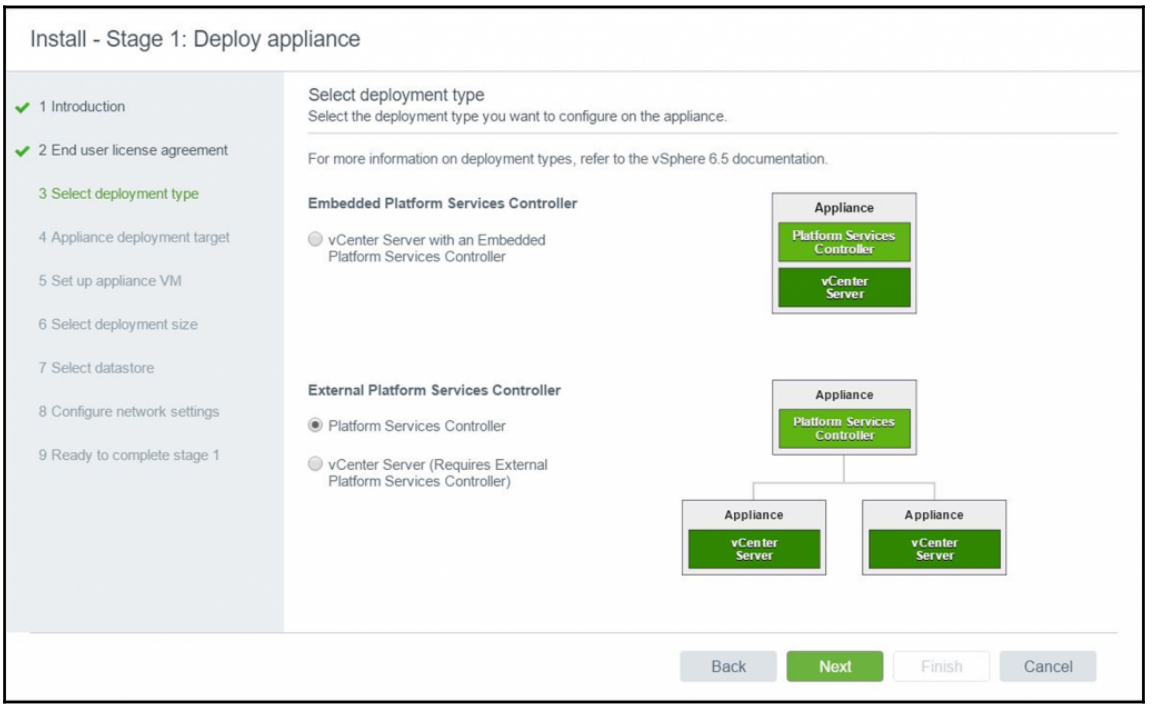

Windows Virtual Machine or Physical Server
Platform Services Controller on Windows
Virtual Machine or Physical Server
vCenter Server on Windows
Virtual Machine
vCenter Server Appliance

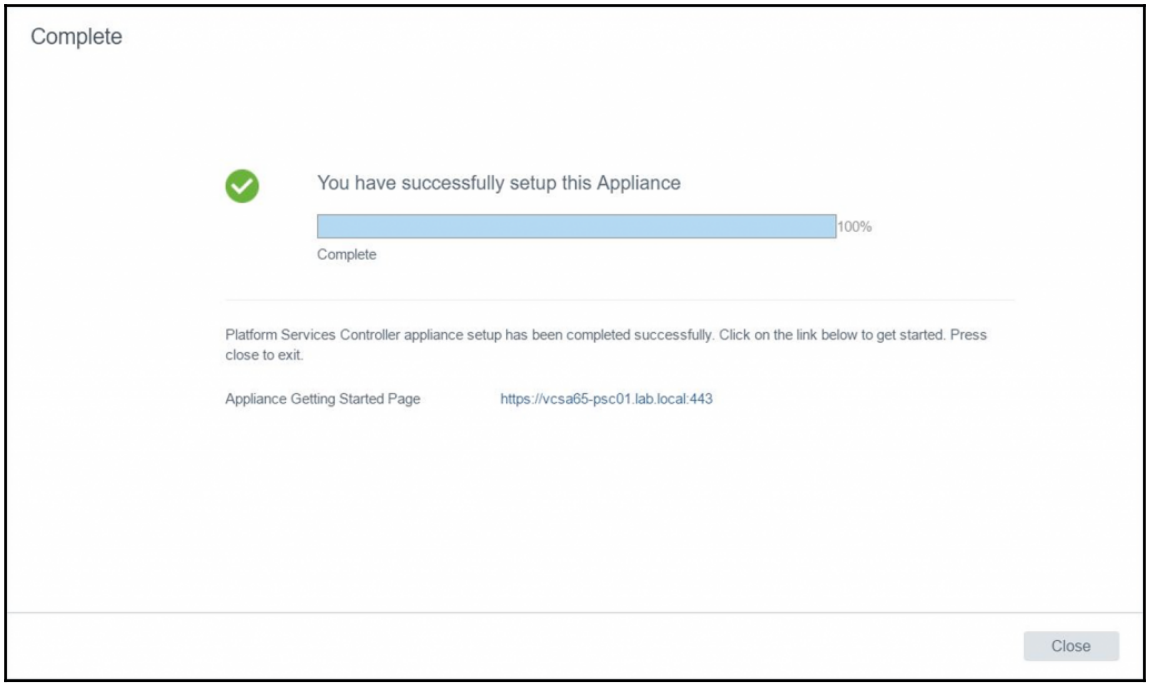

Add VM Override
cluster01
Browse...
Name
vcsa65
vSphere DRS
DRS automation level
Override
Disabled
vSphere HA
VM Restart Priority
Override
Medium
Host isolation response
Override
Disabled
vSphere HA - PDL Protection Settings
Failure Response
Override
Disabled
vSphere HA - APD Protection Settings
CANCEL
OK

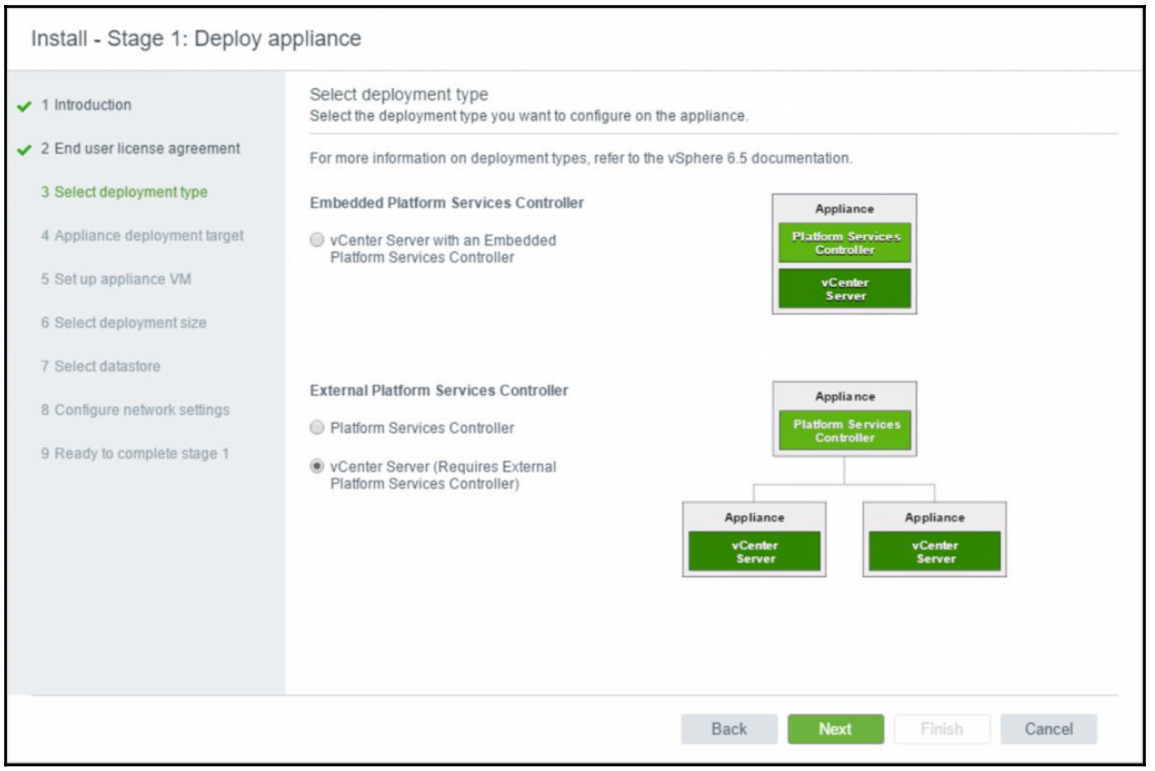

ODBC Data Source Administrator (64-bit)
User DSN
System DSN
File DSN
Drivers
Tracing
Connection Pooling
About
System Data Sources:
Name
Platform
Driver
vCenter Server
64-bit
SQL Server Native Client 11.0
Add...
Remove
Configure...
An ODBC System data source stores information about how to connect to the indicated data provider.
A System data source is visible to all users of this computer, including NT services.
OK
Cancel
Apply
Help


VMware® vCenter™ Installer
vmware vSphere
VMware vCenter Server
vCenter Server for Windows
vSphere Update Manager
Server
Download Service
vCenter Server for Windows
VMware vCenter Server is a windows application that manages datacenter access control, performance monitoring and configuration, and unifies resources from individual servers to be shared among virtual machines in the entire datacenter.
For a list of information you need to install this component, see the installation checklist:
http://www.vmware.com/
Prerequisites:
None
Install
Explore Media
Exit


vmware
vCenter Server Appliance
Logout | Help
Navigator
Summary
Access
Networking
Time
Update
Administration
Syslog Configuration
CPU and Memory
Database
Update
Current version details
Settings
Check Updates
Vendor
VMware, Inc.
Appliance name
VMware vCenter Server Appliance
Update version
6.5.0.10000 Build Number 5973321
Description
vCenter Server with an external Platform Services Controller
Release date
July 27, 2017
Available Updates
Install Updates
Update Status
Click on Check Updates to find available updates.

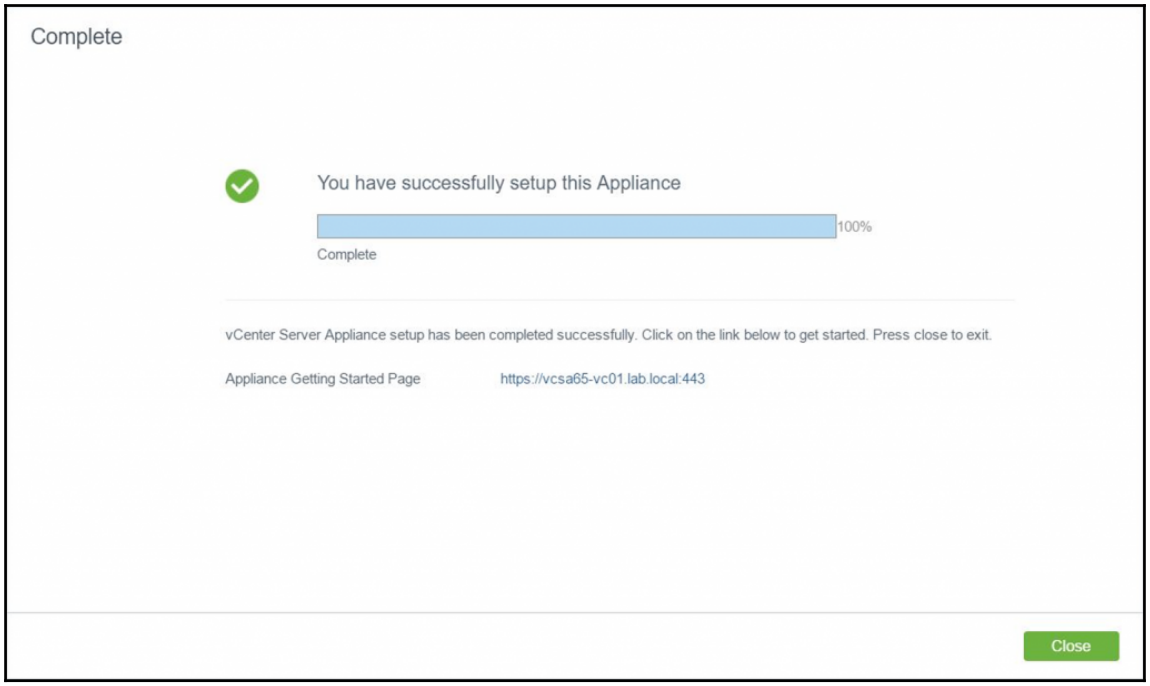

Install - Stage 1: Deploy appliance
1 Introduction
2 End user license agreement
3 Select deployment type
4 Appliance deployment target
5 Set up appliance VM
6 Select deployment size
7 Select datastore
8 Configure network settings
9 Ready to complete stage 1
Select deployment type
Select the deployment type you want to configure on the appliance.
For more information on deployment types, refer to the vSphere 6.5 documentation.
Embedded Platform Services Controller
vCenter Server with an Embedded Platform Services Controller
Appliance
Platform Services Controller
vCenter Server
External Platform Services Controller
Platform Services Controller
vCenter Server (Requires External Platform Services Controller)
Appliance
Platform Services Controller
Appliance
vCenter Server
Appliance
vCenter Server
Back
Next
Finish
Cancel


Complete
You have successfully setup this Appliance
100%
Complete
Platform Services Controller appliance setup has been completed successfully. Click on the link below to get started. Press close to exit.
Appliance Getting Started Page
https://vcsa65-psc01.lab.local:443
Close

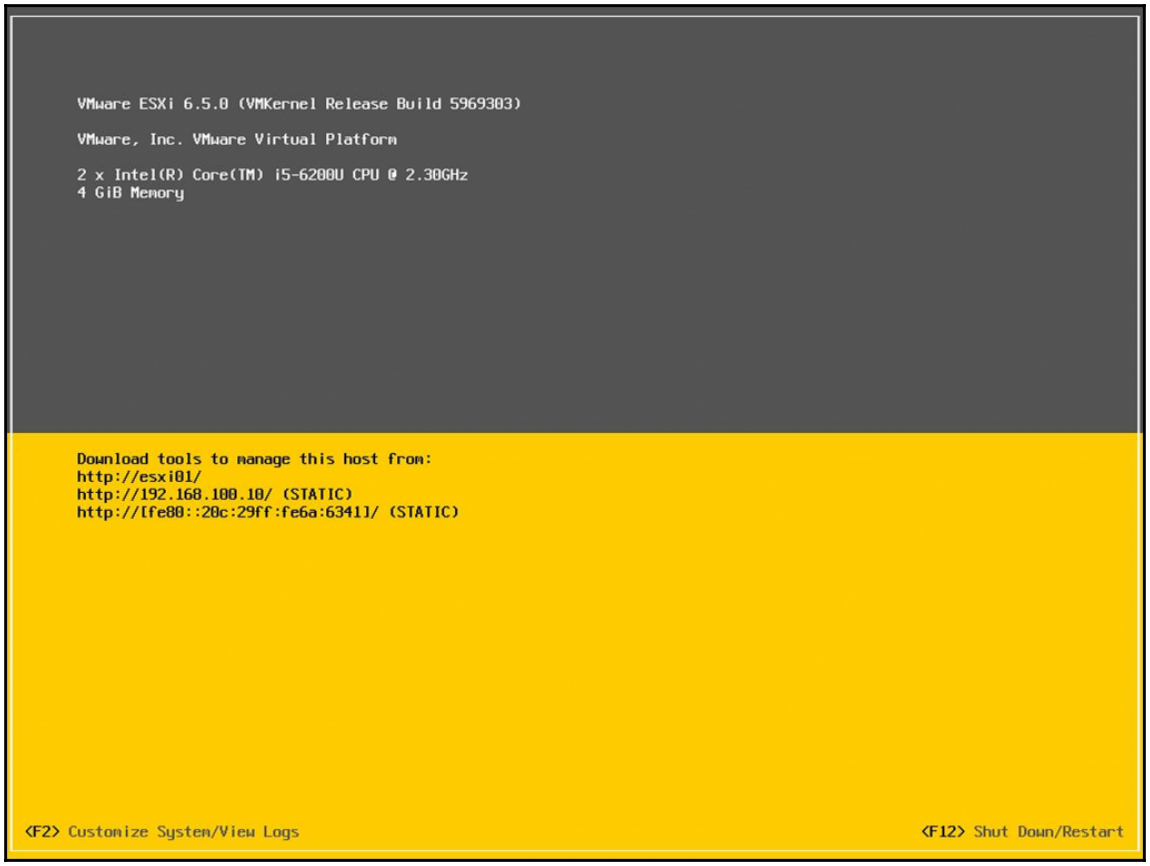


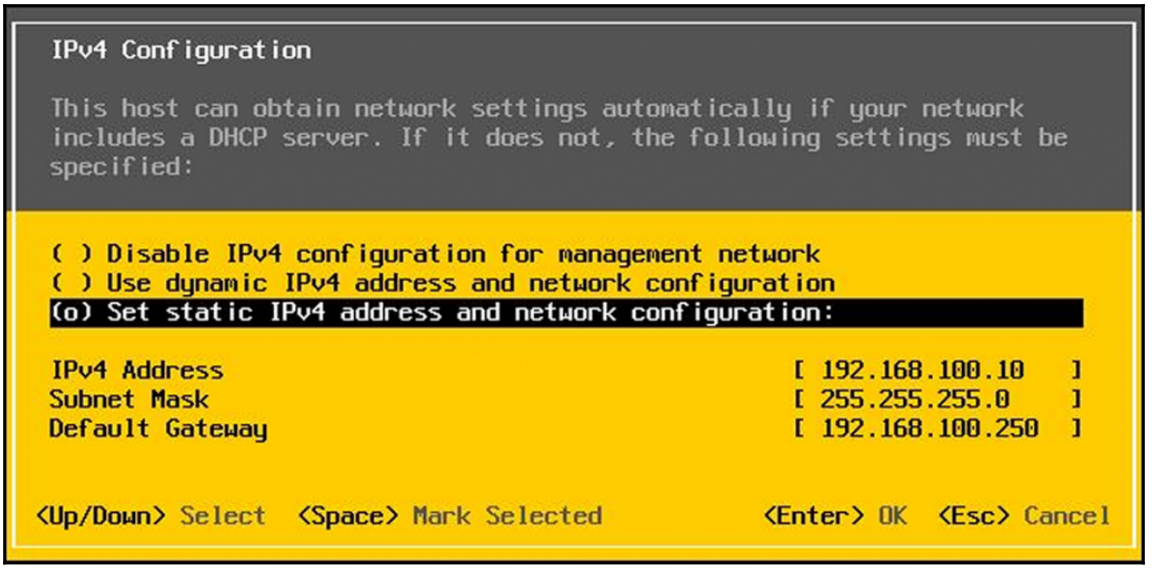
Resources required for different deployment sizes

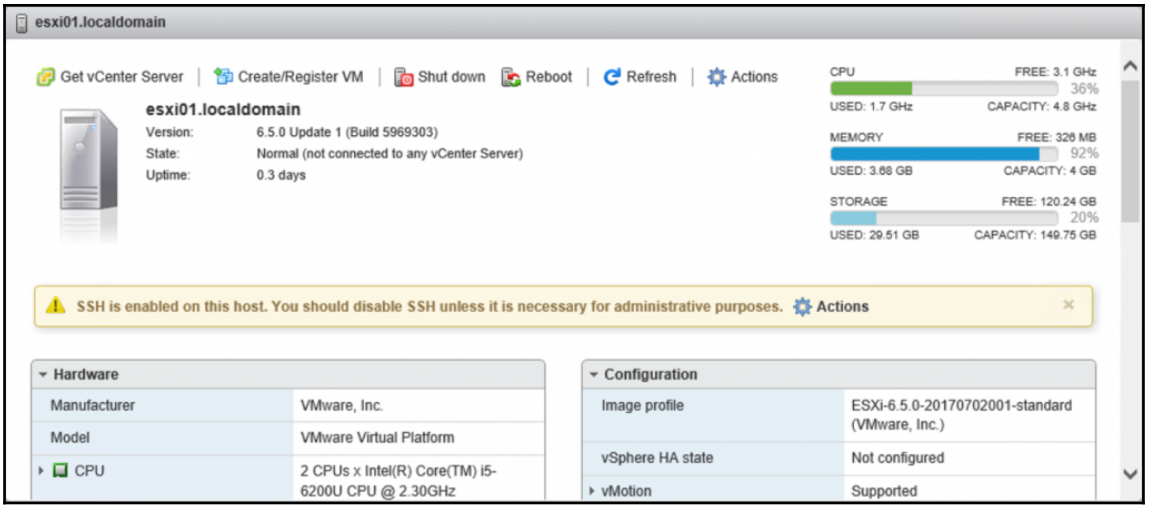
Deployment Size	vCPUs	Memory (GB)	Storage (GB)	Hosts (up to)	VMs (up to)
Tiny	2	10	250	10	100
Small	4	16	290	100	1000
Medium	8	24	425	400	4000
Large	16	32	640	1000	10000
X-Large	24	48	980	2000	35000

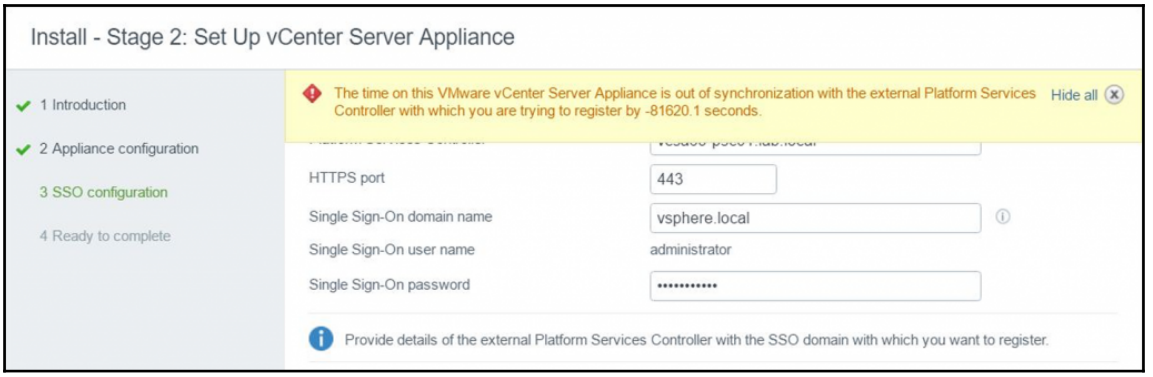

Complete
You have successfully setup this Appliance
100%
Complete
vCenter Server Appliance setup has been completed successfully. Click on the link below to get started. Press close to exit.
Appliance Getting Started Page
https://vcsa65-vc01.lab.local:443
Close

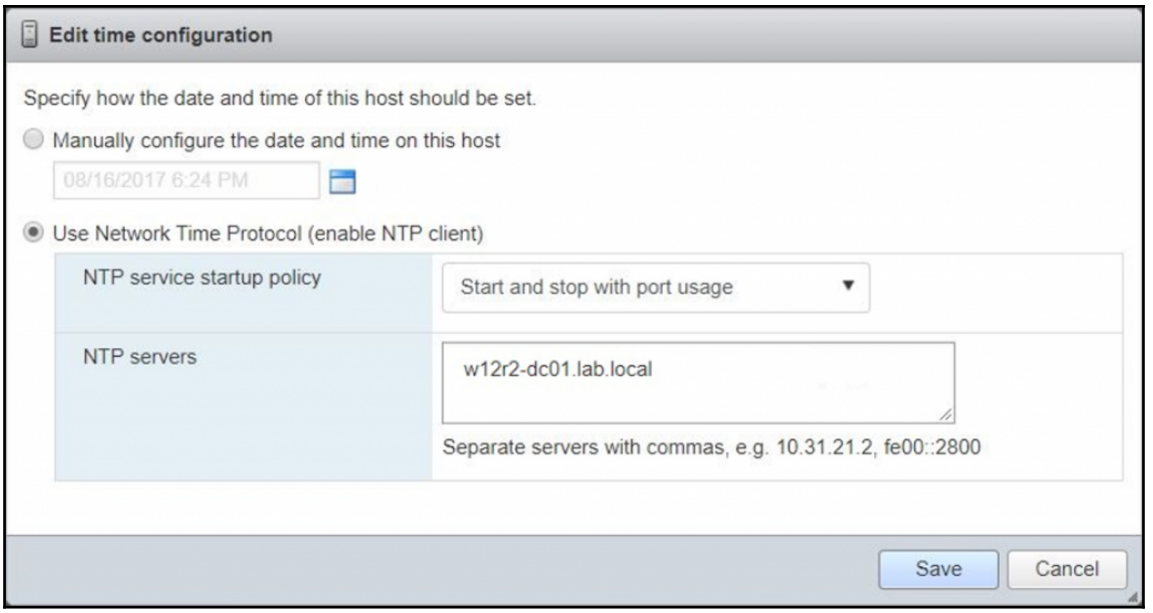
Chapter 5: Configuring and Managing vSphere 6.5


VMware ESXi 6.5.0 (VMKernel Release Build 5969303)
VMware, Inc. VMware Virtual Platform
2 x Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
4 GiB Memory
Download tools to manage this host from:
http://esxi01/
http://192.168.100.10/ (STATIC)
http://[fe80::20c:29ff:fe6a:6341]/ (STATIC)
<F2> Customize System/View Logs
<F12> Shut Down/Restart


IPv4 Configuration
This host can obtain network settings automatically if your network includes a DHCP server. If it does not, the following settings must be specified:
( ) Disable IPv4 configuration for management network
( ) Use dynamic IPv4 address and network configuration
(o) Set static IPv4 address and network configuration:
IPv4 Address [192.168.100.10]
Subnet Mask [255.255.255.0]
Default Gateway [192.168.100.250]
<Up/Down> Select <Space> Mark Selected <Enter> OK <Esc> Cancel

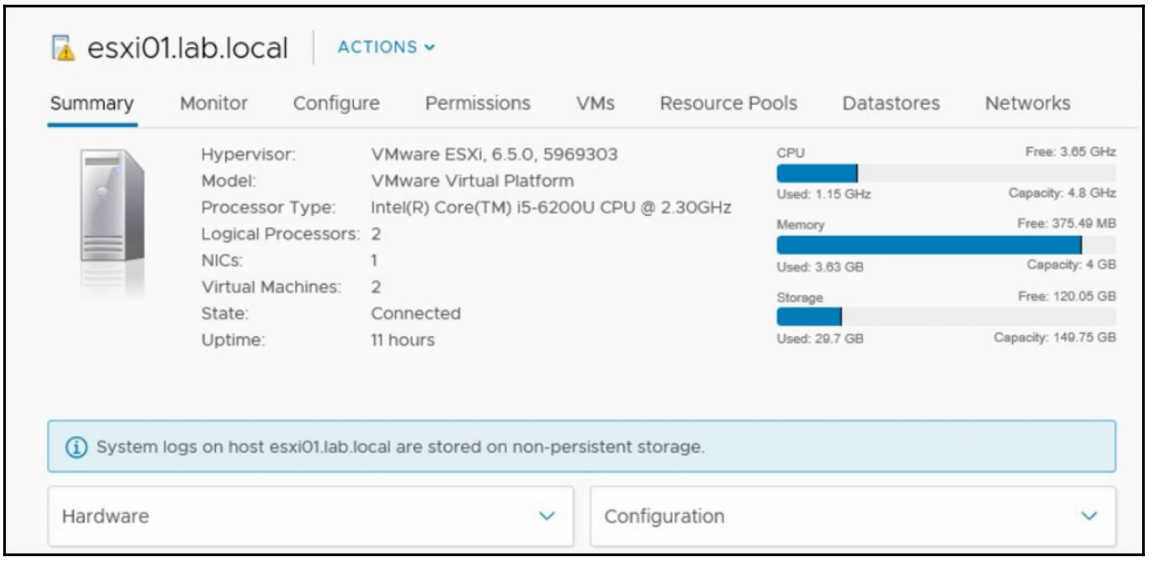

esxi01.localdomain
Get vCenter Server
Create/Register VM
Shut down
Reboot
Refresh
Actions
esxi01.localdomain
Version: 6.5.0 Update 1 (Build 5969303)
State: Normal (not connected to any vCenter Server)
Uptime: 0.3 days
CPU FREE: 3.1 GHz
36%
USED: 1.7 GHz CAPACITY: 4.8 GHz
MEMORY FREE: 326 MB
92%
USED: 3.68 GB CAPACITY: 4 GB
STORAGE FREE: 120.24 GB
20%
USED: 29.51 GB CAPACITY: 149.75 GB
SSH is enabled on this host. You should disable SSH unless it is necessary for administrative purposes.
Actions
Hardware
Manufacturer VMware, Inc.
Model VMware Virtual Platform
CPU 2 CPUs x Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
Configuration
Image profile ESXi-6.5.0-20170702001-standard (VMware, Inc.)
vSphere HA state Not configured
vMotion Supported

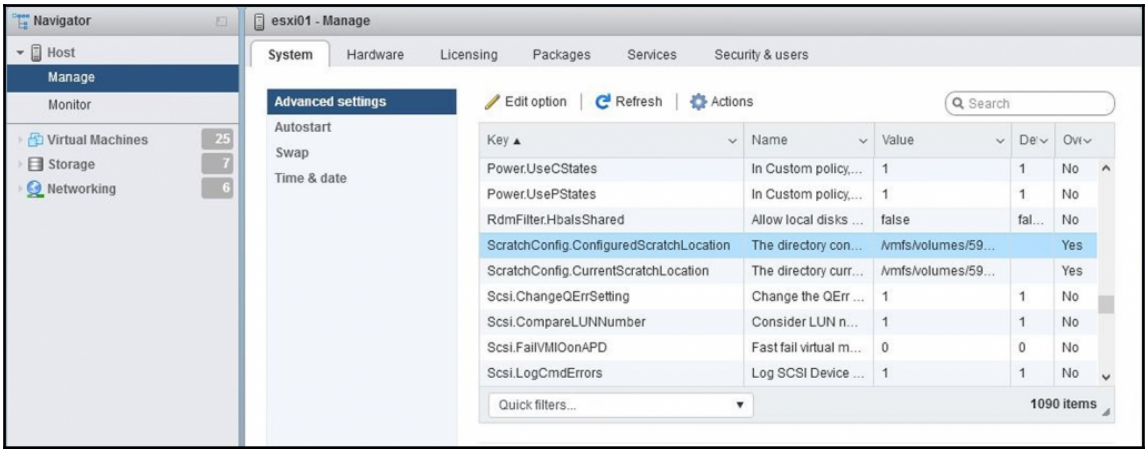


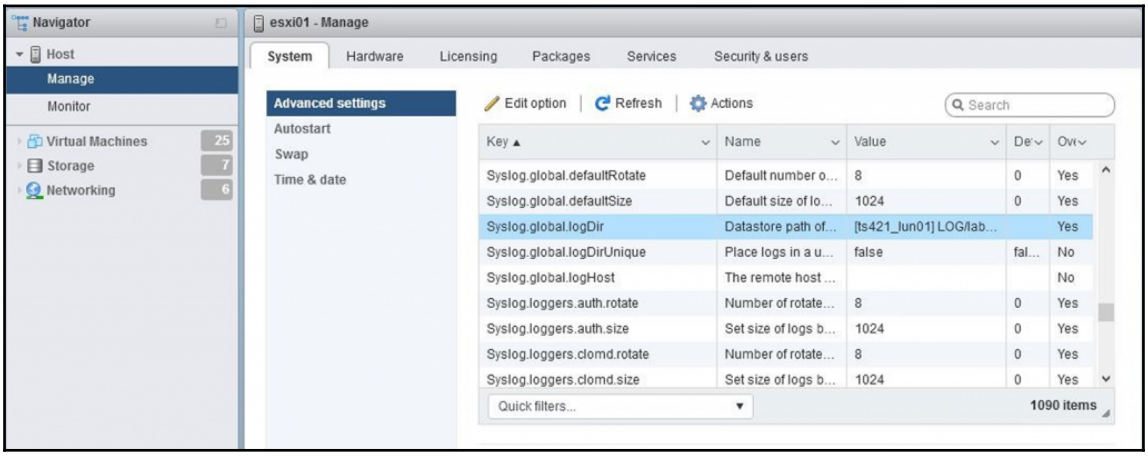


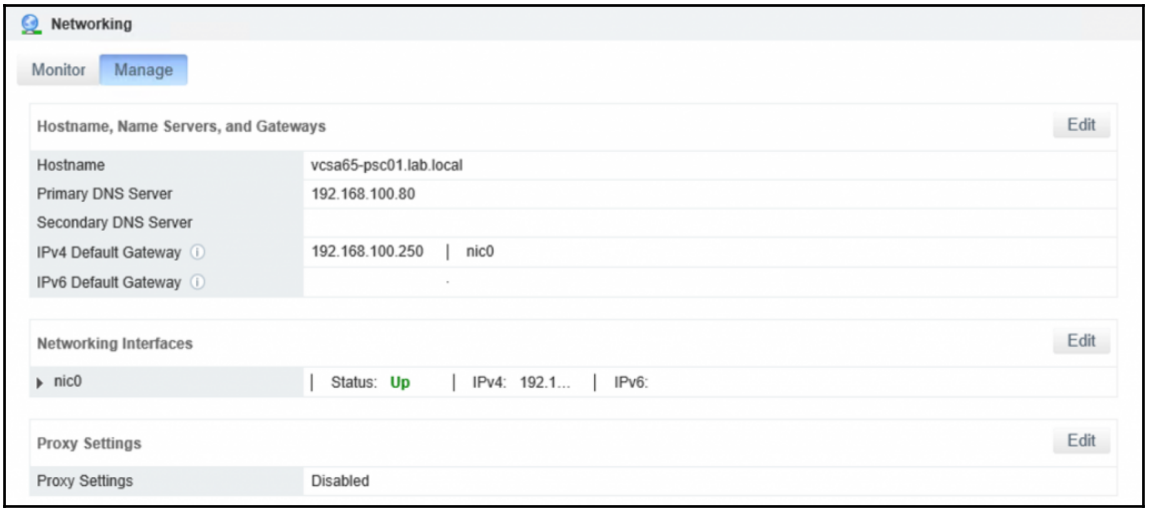

```
[root@esxi01:~] ls /dev/disks/ -lh
total 162402208
-rw-------    1 root     root        4.0G Aug  7 18:20 mpx.vmhba1:C0:T0:L0
-rw-------    1 root     root        4.0M Aug  7 18:20 mpx.vmhba1:C0:T0:L0:1
-rw-------    1 root     root      250.0M Aug  7 18:20 mpx.vmhba1:C0:T0:L0:5
-rw-------    1 root     root      250.0M Aug  7 18:20 mpx.vmhba1:C0:T0:L0:6
-rw-------    1 root     root      110.0M Aug  7 18:20 mpx.vmhba1:C0:T0:L0:7
-rw-------    1 root     root      286.0M Aug  7 18:20 mpx.vmhba1:C0:T0:L0:8
-rw-------    1 root     root      150.0G Aug  7 18:20 mpx.vmhba1:C0:T1:L0
```

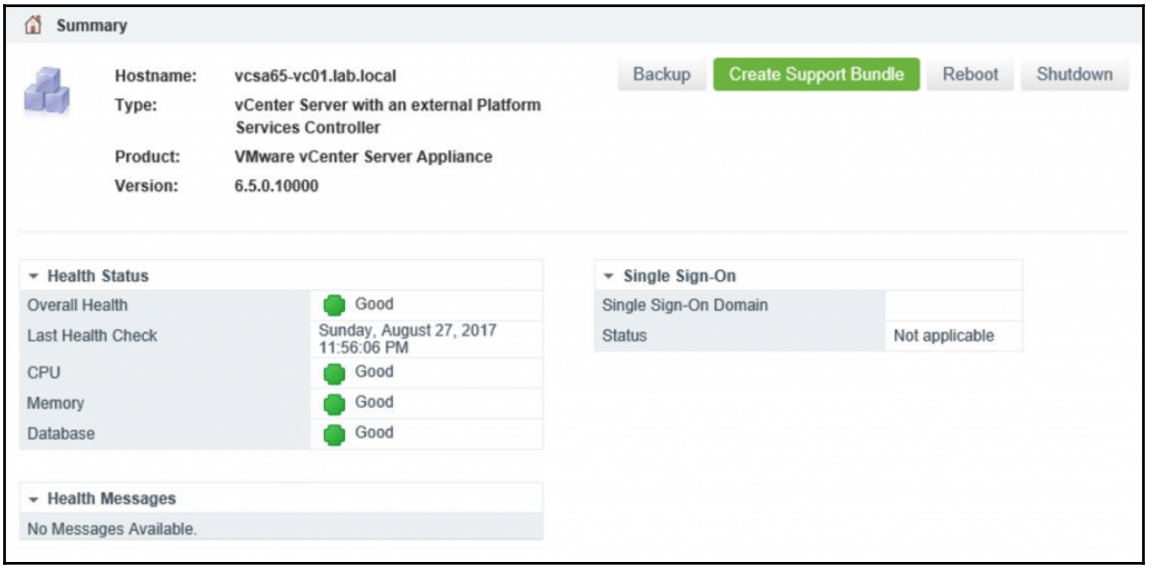
```
[root@esxi01:~] partedUtil getptbl /dev/disks/vml.0000000000766d686261313a303a30
gpt
522 255 63 8388608
1 64 8191 C12A7328F81F11D2BA4B00A0C93EC93B systemPartition 128
5 8224 520191 EBD0A0A2B9E5443387C068B6B72699C7 linuxNative 0
6 520224 1032191 EBD0A0A2B9E5443387C068B6B72699C7 linuxNative 0
7 1032224 1257471 9D27538040AD11DBBF97000C2911D1B8 vmkDiagnostic 0
8 1257504 1843199 EBD0A0A2B9E5443387C068B6B72699C7 linuxNative 0
[root@esxi01:~]
```

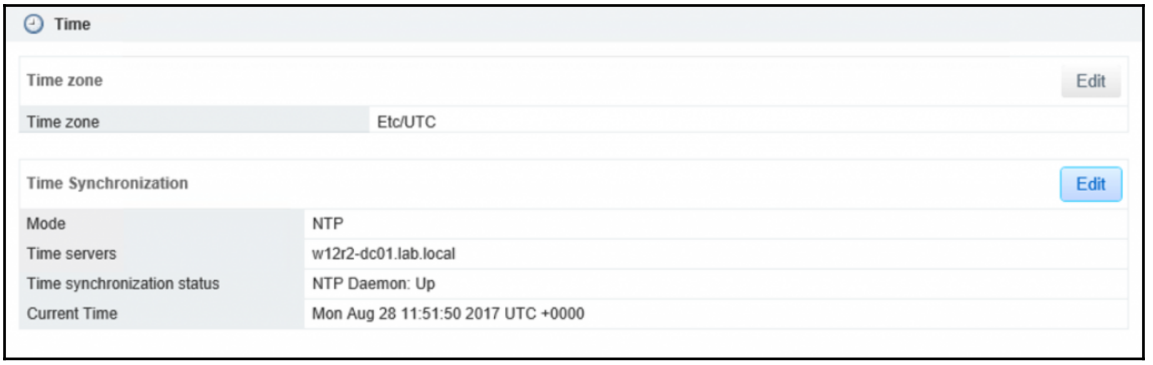


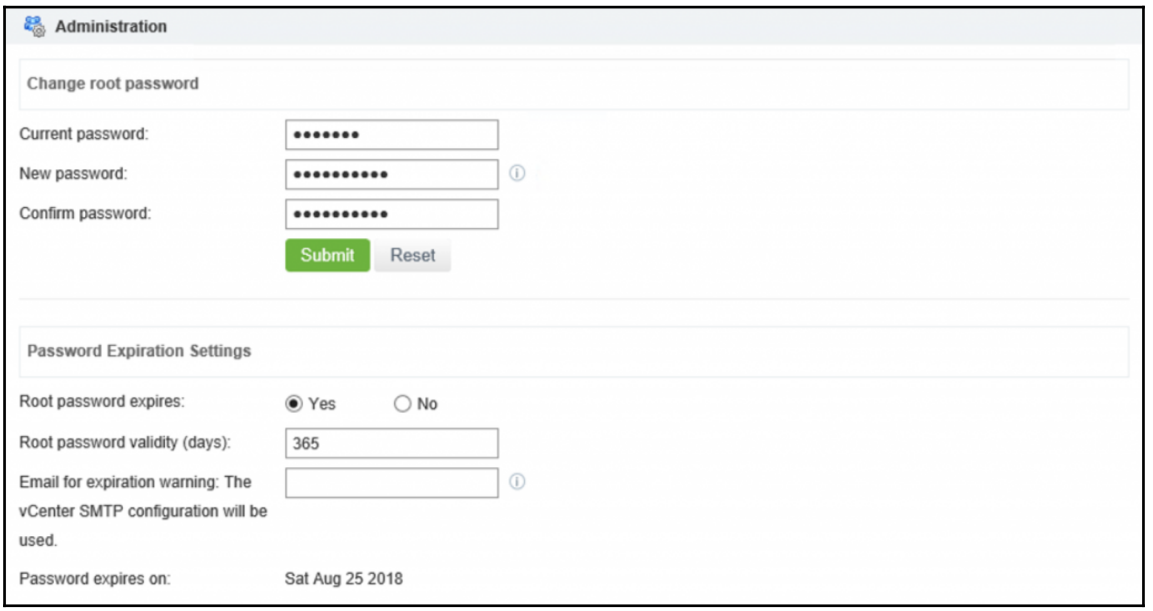

Navigator
Host
Manage
Monitor
Virtual Machines 25
Storage 7
Networking 6
esxi01 - Manage
System
Hardware
Licensing
Packages
Services
Security & users
Advanced settings
Autostart
Swap
Time & date
Edit option
Refresh
Actions
Search
Key
Name
Value
Power.UseCStates
In Custom policy,...
1
No
Power.UsePStates
In Custom policy,...
1
No
RdmFilter.HbalsShared
Allow local disks ...
false
No
ScratchConfig.ConfiguredScratchLocation
The directory con...
/vmfs/volumes/59...
Yes
ScratchConfig.CurrentScratchLocation
The directory curr...
/vmfs/volumes/59...
Yes
Scsi.ChangeQErrSetting
Change the QErr ...
1
No
Scsi.CompareLUNNumber
Consider LUN n...
1
No
Scsi.FailVMIOonAPD
Fast fail virtual m...
0
No
Scsi.LogCmdErrors
Log SCSI Device ...
1
No
Quick filters...
1090 items

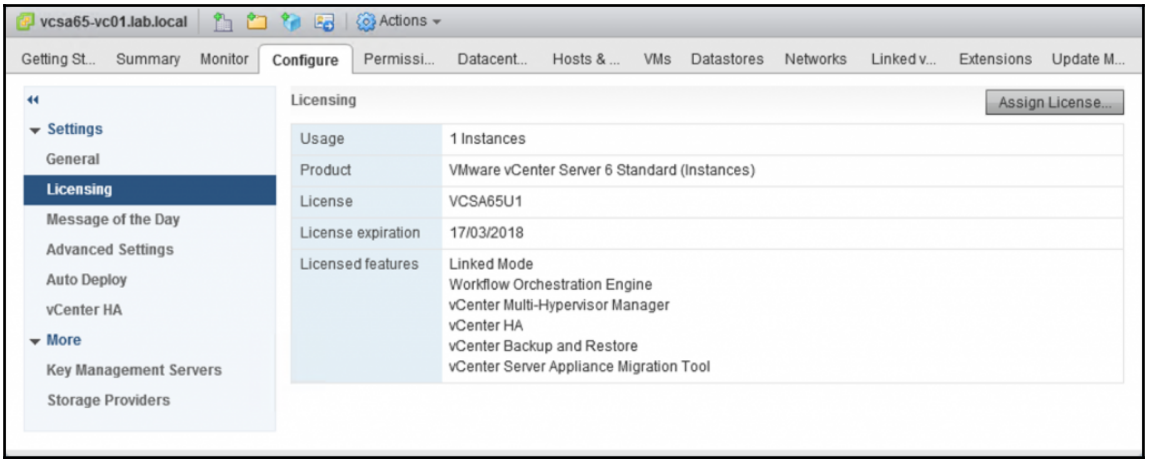

Navigator
Host
Manage
Monitor
Virtual Machines 25
Storage 7
Networking 6
esxi01 - Manage
System
Hardware
Licensing
Packages
Services
Security & users
Advanced settings
Autostart
Swap
Time & date
Edit option
Refresh
Actions
Search
Key
Name
Value
Syslog.global.defaultRotate
Default number o...
8
0
Yes
Syslog.global.defaultSize
Default size of lo...
1024
0
Yes
Syslog.global.logDir
Datastore path of...
[ts421_lun01] LOG/lab...
Yes
Syslog.global.logDirUnique
Place logs in a u...
false
No
Syslog.global.logHost
The remote host ...
No
Syslog.loggers.auth.rotate
Number of rotate...
8
0
Yes
Syslog.loggers.auth.size
Set size of logs b...
1024
0
Yes
Syslog.loggers.clomd.rotate
Number of rotate...
8
0
Yes
Syslog.loggers.clomd.size
Set size of logs b...
1024
0
Yes
Quick filters...
1090 items

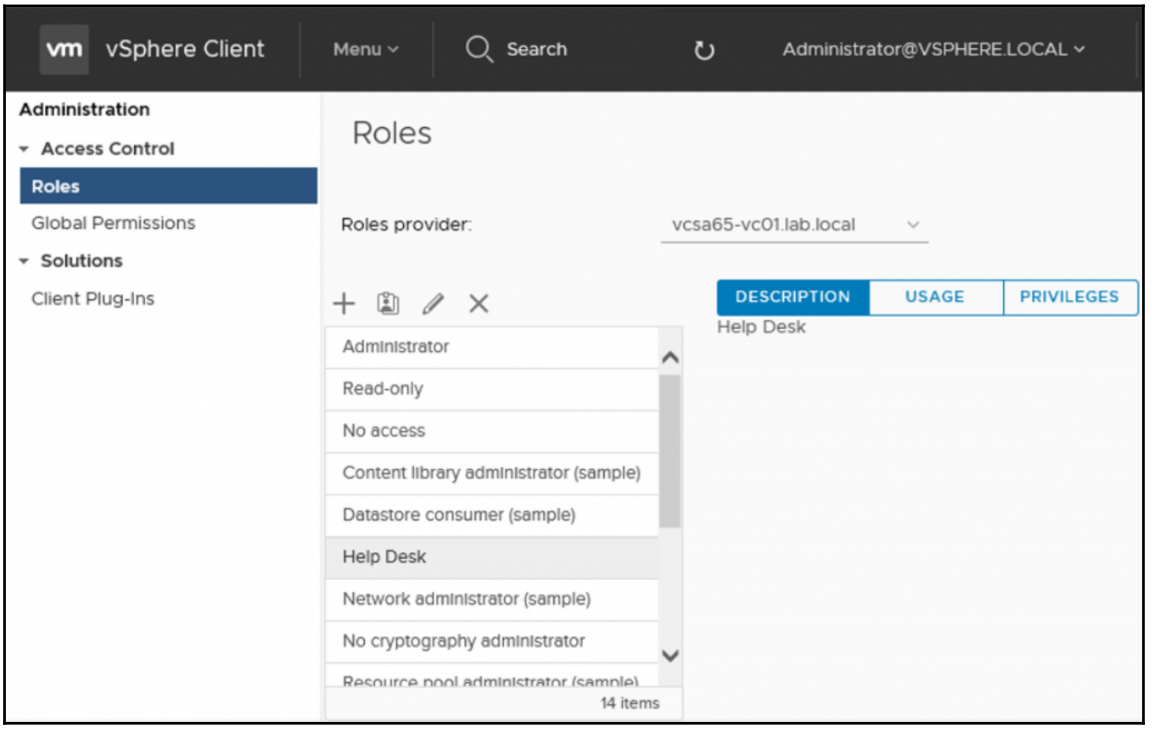

Networking
Monitor
Manage
Hostname, Name Servers, and Gateways
Edit
Hostname
vcsa65-psc01.lab.local
Primary DNS Server
192.168.100.80
Secondary DNS Server
IPv4 Default Gateway
192.168.100.250 | nic0
IPv6 Default Gateway
Networking Interfaces
Edit
nic0
| Status: Up | IPv4: 192.1... | IPv6:
Proxy Settings
Edit
Proxy Settings
Disabled

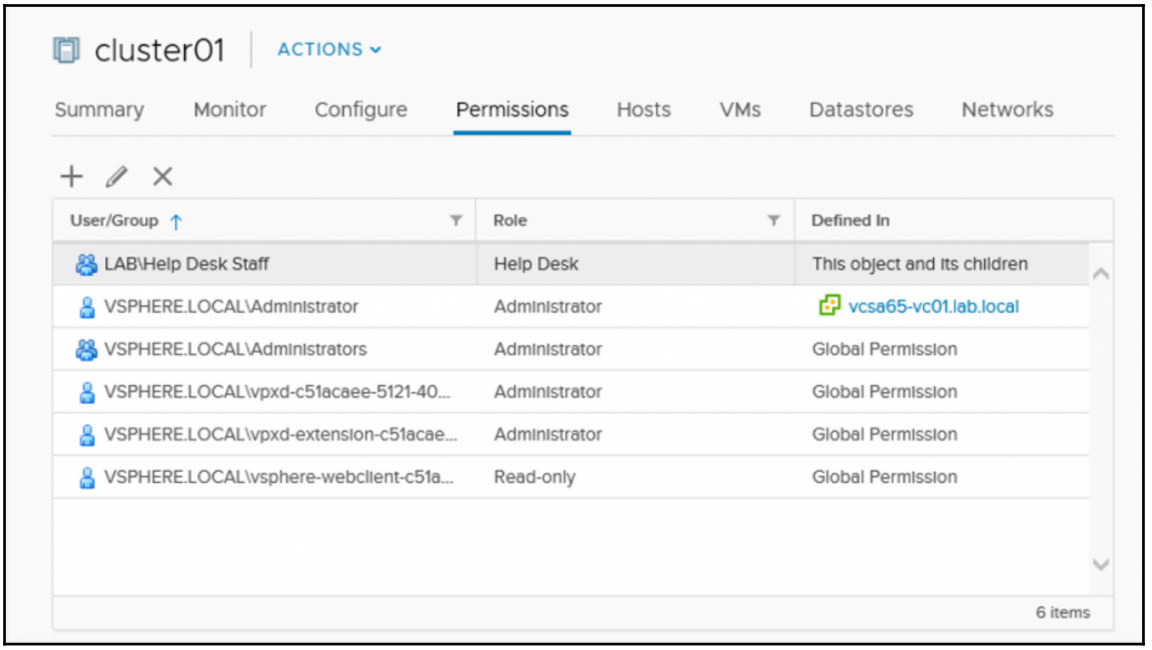

Summary
Hostname: vcsa65-vc01.lab.local
Type: vCenter Server with an external Platform Services Controller
Product: VMware vCenter Server Appliance
Version: 6.5.0.10000
Backup
Create Support Bundle
Reboot
Shutdown
Health Status
Overall Health
Good
Last Health Check
Sunday, August 27, 2017 11:56:06 PM
CPU
Good
Memory
Good
Database
Good
Single Sign-On
Single Sign-On Domain
Status
Not applicable
Health Messages
No Messages Available.

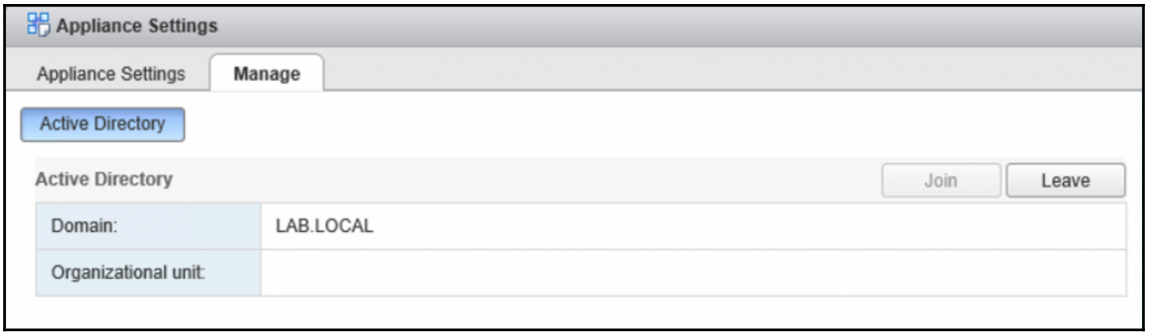

Time
Time zone
Edit
Time zone
Etc/UTC
Time Synchronization
Edit
Mode
NTP
Time servers
w12r2-dc01.lab.local
Time synchronization status
NTP Daemon: Up
Current Time
Mon Aug 28 11:51:50 2017 UTC +0000

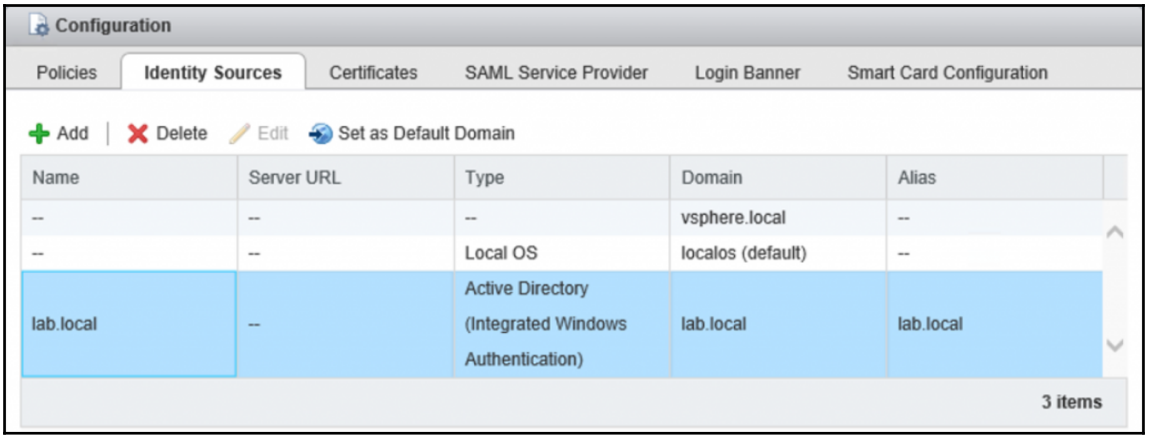

Administration
Change root password
Current password:
New password:
Confirm password:
Submit
Reset
Password Expiration Settings
Root password expires:
Yes
No
Root password validity (days):
365
Email for expiration warning: The vCenter SMTP configuration will be used.
Password expires on:
Sat Aug 25 2018

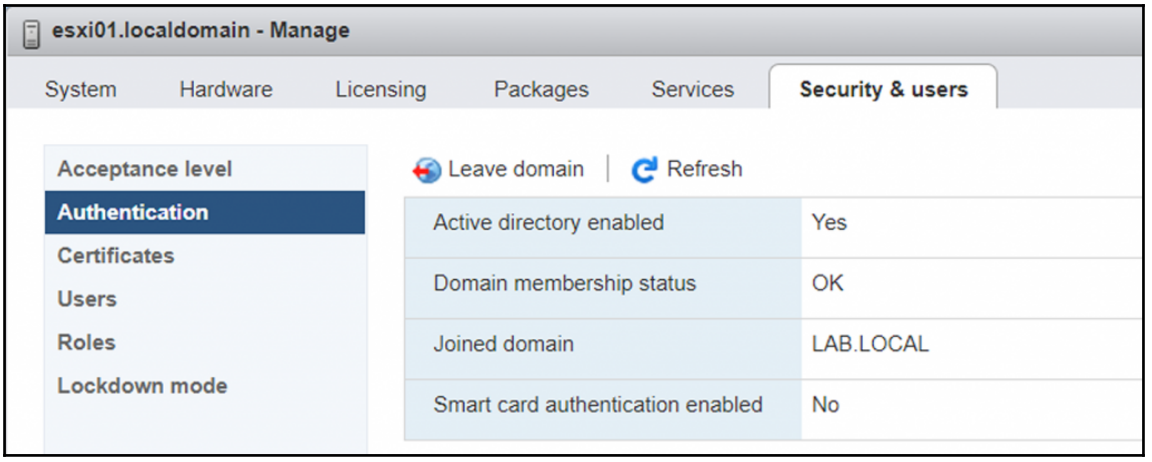

vcsa65-vc01.lab.local
Actions
Getting St...
Summary
Monitor
Configure
Permissi...
Datacent...
Hosts & ...
VMs
Datastores
Networks
Linked v...
Extensions
Update M...
Settings
General
Licensing
Message of the Day
Advanced Settings
Auto Deploy
vCenter HA
More
Key Management Servers
Storage Providers
Licensing
Assign License...
Usage
1 Instances
Product
VMware vCenter Server 6 Standard (Instances)
License
VCSA65U1
License expiration
17/03/2018
Licensed features
Linked Mode
Workflow Orchestration Engine
vCenter Multi-Hypervisor Manager
vCenter HA
vCenter Backup and Restore
vCenter Server Appliance Migration Tool

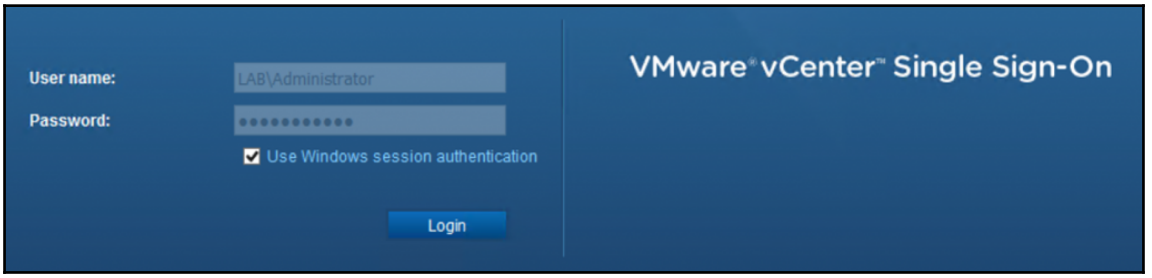

vSphere Client
Menu
Search
Administrator@VSPHERE.LOCAL
Administration
Access Control
Roles
Global Permissions
Solutions
Client Plug-Ins
Roles
Roles provider:
vcsa65-vc01.lab.local
DESCRIPTION
USAGE
PRIVILEGES
Help Desk
Administrator
Read-only
No access
Content library administrator (sample)
Datastore consumer (sample)
Help Desk
Network administrator (sample)
No cryptography administrator
Resource pool administrator (sample)
14 items


cluster01
ACTIONS
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
User/Group
Role
Defined In
LAB\Help Desk Staff
Help Desk
This object and its children
VSPHERE.LOCAL\Administrator
Administrator
vcsa65-vc01.lab.local
VSPHERE.LOCAL\Administrators
Administrator
Global Permission
VSPHERE.LOCAL\vpxd-c51acaee-5121-40...
Administrator
Global Permission
VSPHERE.LOCAL\vpxd-extension-c51acae...
Administrator
Global Permission
VSPHERE.LOCAL\vsphere-webclient-c51a...
Read-only
Global Permission
6 items

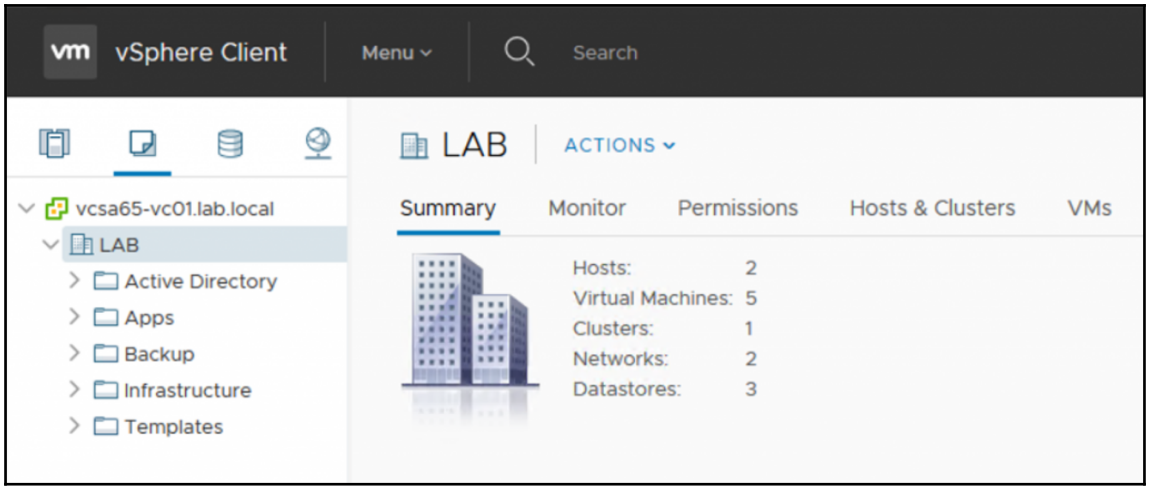

Appliance Settings
Appliance Settings
Manage
Active Directory
Active Directory
Join
Leave
Domain:
LAB.LOCAL
Organizational unit:

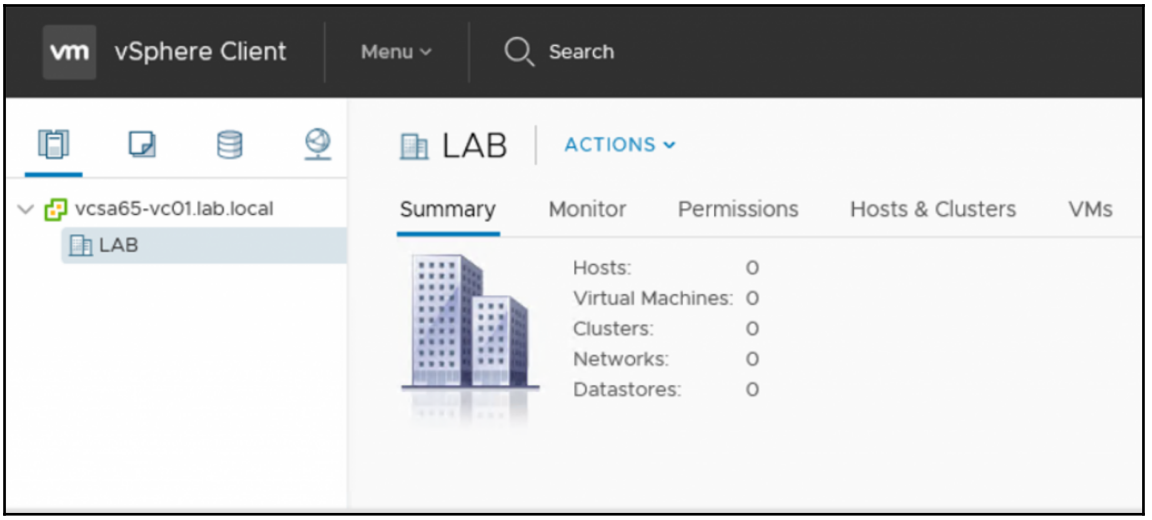

Configuration
Policies
Identity Sources
Certificates
SAML Service Provider
Login Banner
Smart Card Configuration
Add
Delete
Edit
Set as Default Domain
Name
Server URL
Type
Domain
Alias
--
--
--
vsphere.local
--
--
--
Local OS
localos (default)
--
lab.local
--
Active Directory (Integrated Windows Authentication)
lab.local
lab.local
3 items

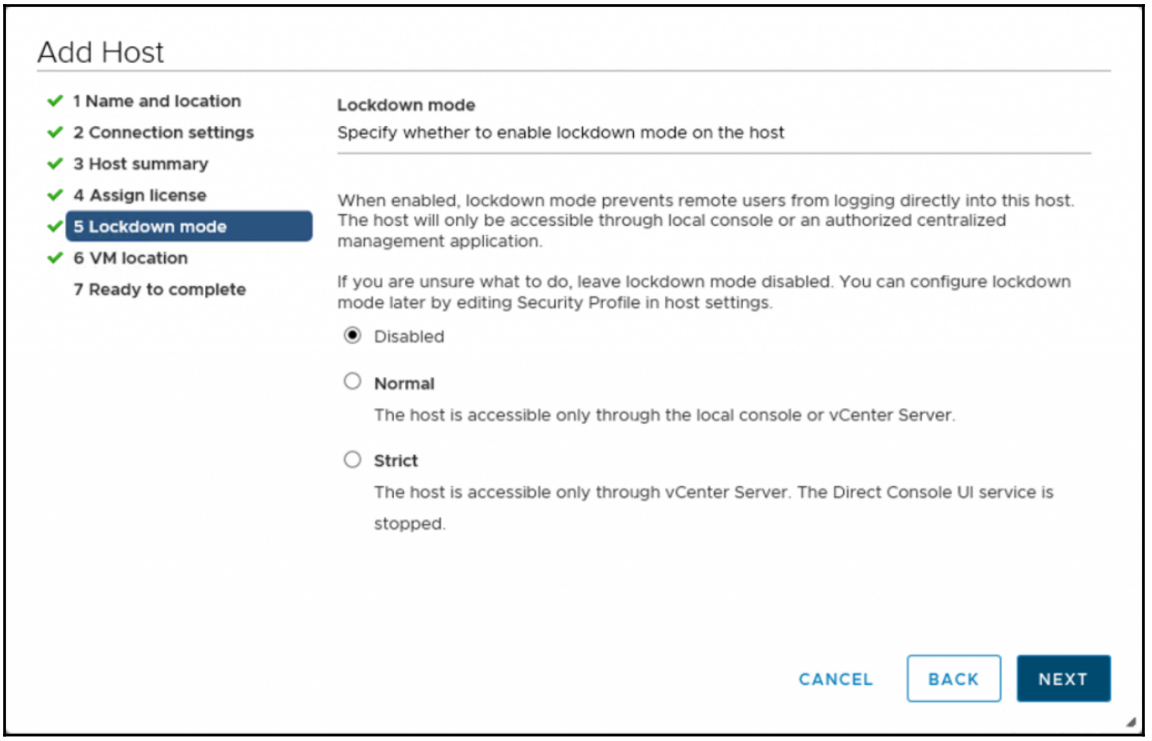

esxi01.localdomain - Manage
System
Hardware
Licensing
Packages
Services
Security & users
Acceptance level
Authentication
Certificates
Users
Roles
Lockdown mode
Leave domain
Refresh
Active directory enabled
Yes
Domain membership status
OK
Joined domain
LAB.LOCAL
Smart card authentication enabled
No

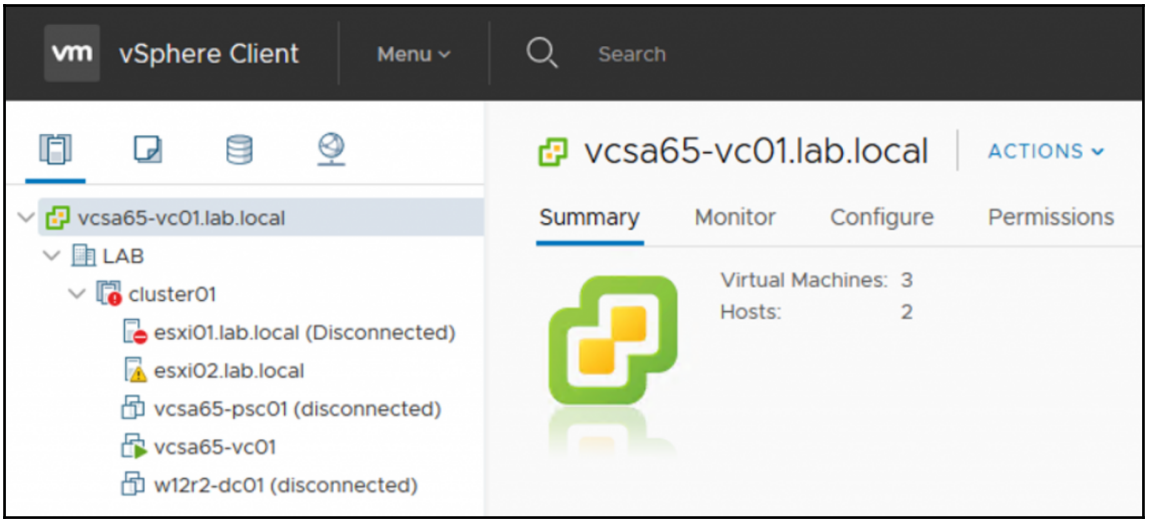

User name:
LAB\Administrator
Password:
Use Windows session authentication
Login
VMware® vCenter™ Single Sign-On

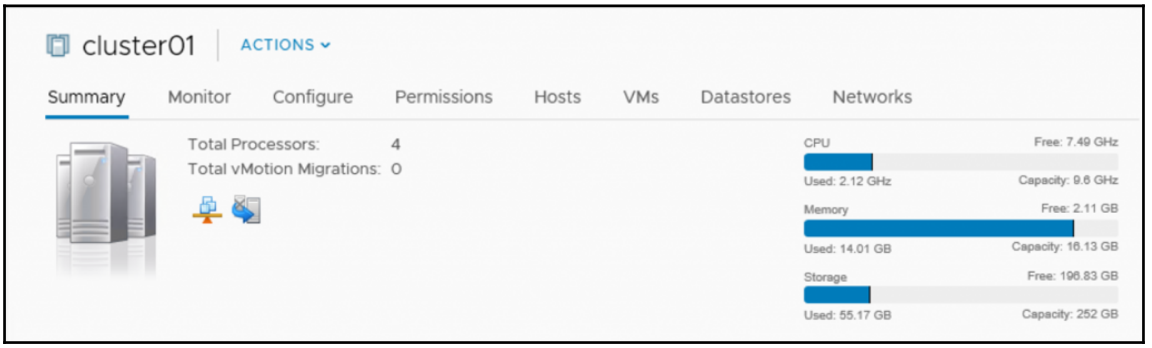
```
root@vcsa65-psc01 [ ~ ]# /usr/lib/vmware-vmdir/bin/vdcadmintool


==================
Please select:
0. exit
1. Test LDAP connectivity
2. Force start replication cycle
3. Reset account password
4. Set log level and mask
5. Set vmdir state
6. Get vmdir state
7. Get vmdir log level and mask
==================

3
  Please enter account UPN : administrator@vsphere.local
New password is -
EzBE=yYL7@x{j7#LAGw0
```

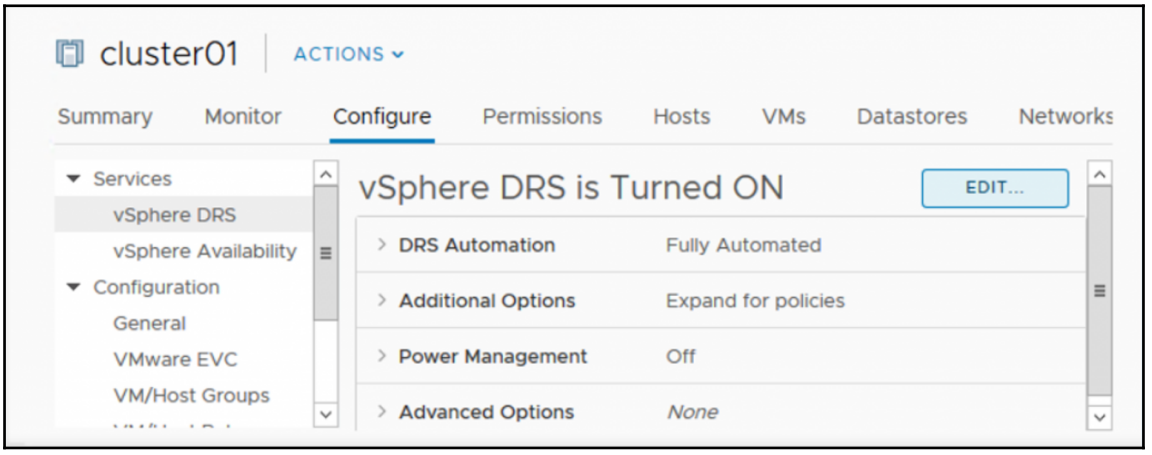


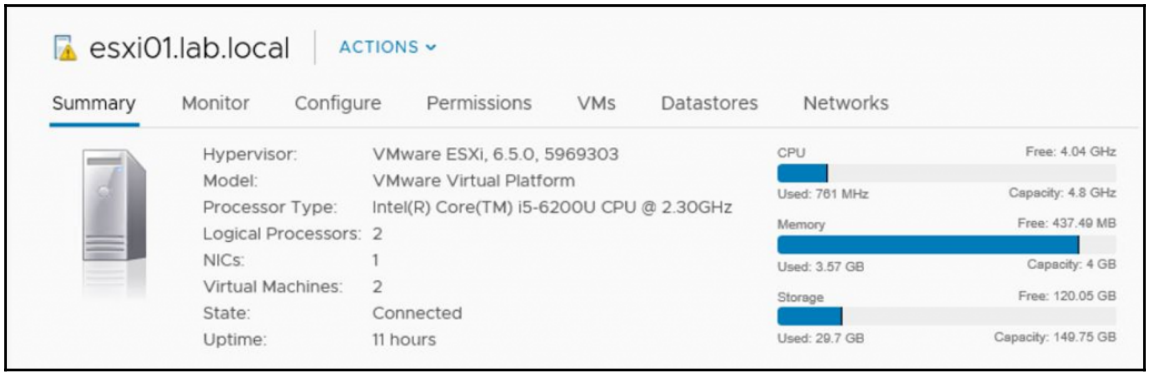

vSphere Client
Menu
Search
LAB
ACTIONS
vcsa65-vc01.lab.local
LAB
Summary
Monitor
Permissions
Hosts & Clusters
VMs
Hosts: 0
Virtual Machines: 0
Clusters: 0
Networks: 0
Datastores: 0

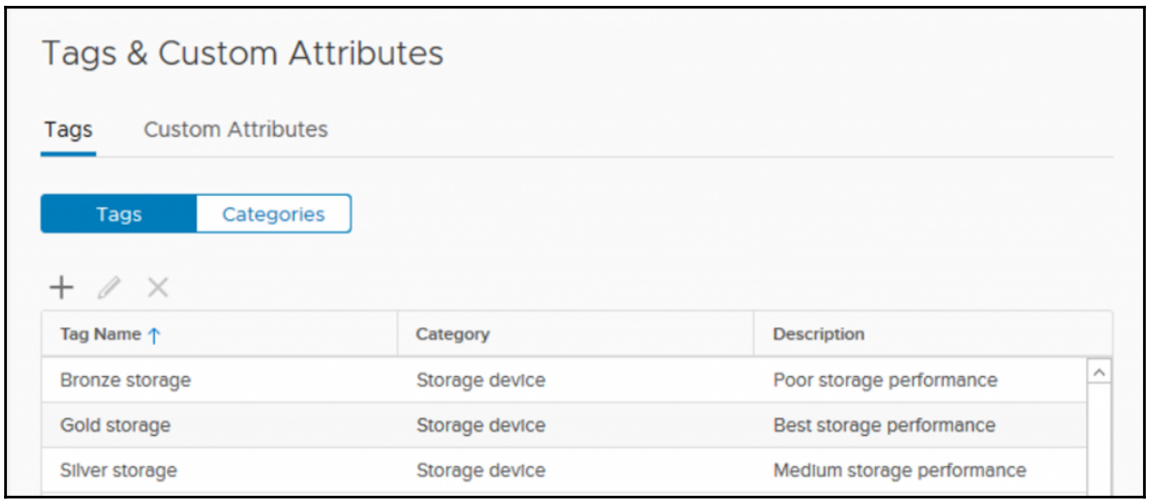

Add Host
1 Name and location
2 Connection settings
3 Host summary
4 Assign license
5 Lockdown mode
6 VM location
7 Ready to complete
Lockdown mode
Specify whether to enable lockdown mode on the host
When enabled, lockdown mode prevents remote users from logging directly into this host. The host will only be accessible through local console or an authorized centralized management application.
If you are unsure what to do, leave lockdown mode disabled. You can configure lockdown mode later by editing Security Profile in host settings.
Disabled
Normal
The host is accessible only through the local console or vCenter Server.
Strict
The host is accessible only through vCenter Server. The Direct Console UI service is stopped.
CANCEL
BACK
NEXT

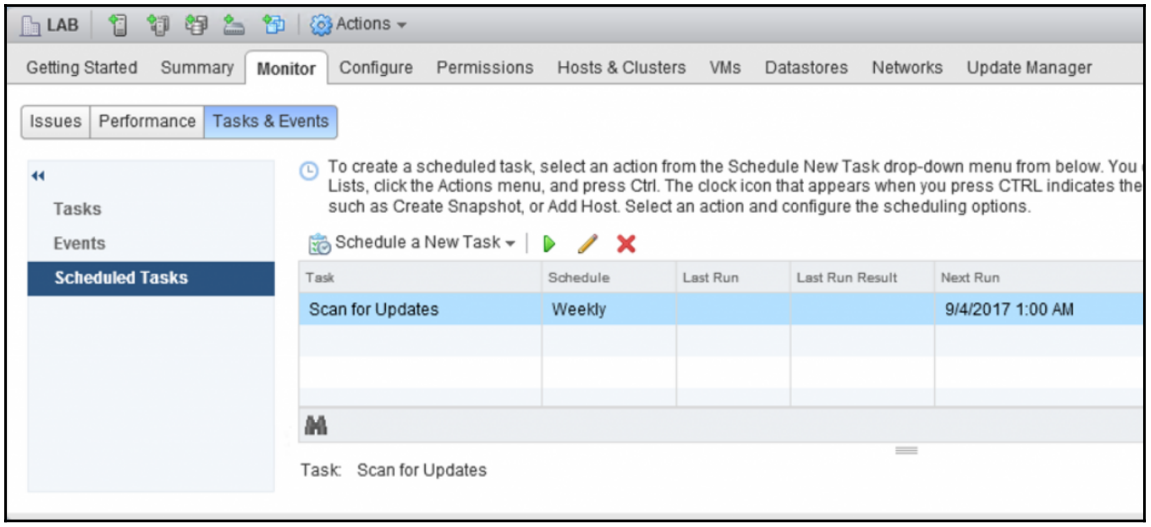

vSphere Client
Menu
Search
vcsa65-vc01.lab.local
LAB
cluster01
esxi01.lab.local (Disconnected)
esxi02.lab.local
vcsa65-psc01 (disconnected)
vcsa65-vc01
w12r2-dc01 (disconnected)
vcsa65-vc01.lab.local
ACTIONS
Summary
Monitor
Configure
Permissions
Virtual Machines: 3
Hosts: 2

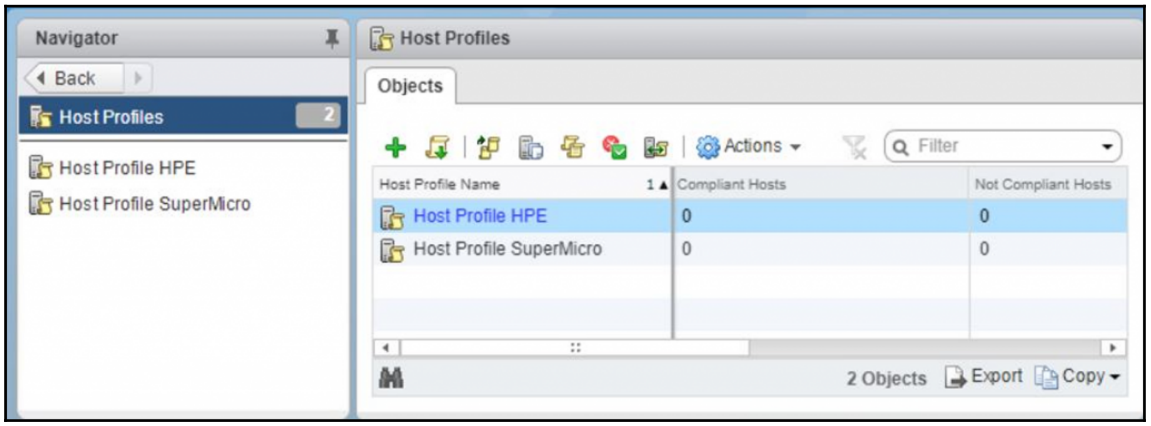

cluster01
ACTIONS
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Total Processors: 4
Total vMotion Migrations: 0
CPU
Free: 7.49 GHz
Used: 2.12 GHz
Capacity: 9.6 GHz
Memory
Free: 2.11 GB
Used: 14.01 GB
Capacity: 16.13 GB
Storage
Free: 196.83 GB
Used: 55.17 GB
Capacity: 252 GB

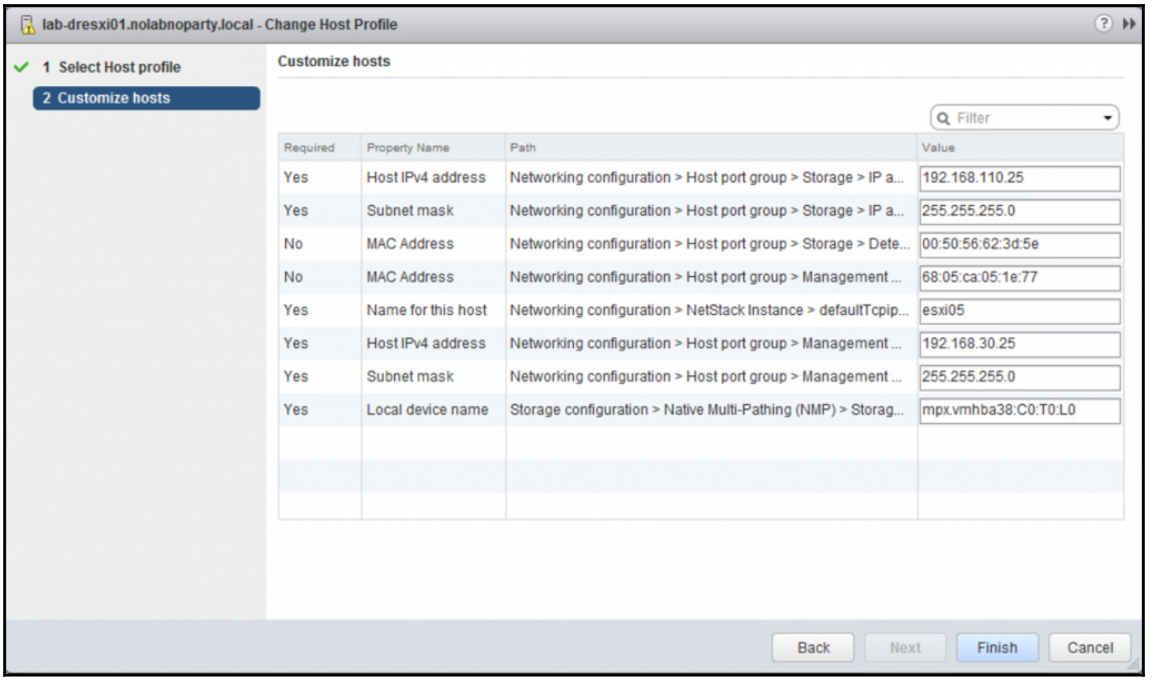

cluster01
ACTIONS
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Services
vSphere DRS
vSphere Availability
Configuration
General
VMware EVC
VM/Host Groups
vSphere DRS is Turned ON
EDIT...
DRS Automation
Fully Automated
Additional Options
Expand for policies
Power Management
Off
Advanced Options
None

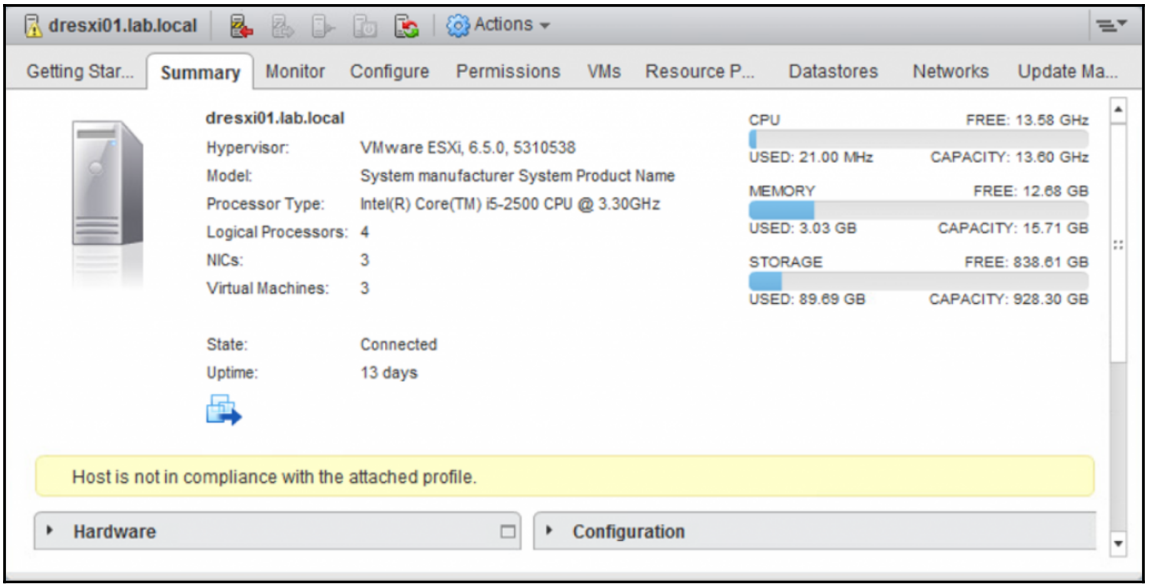

esxi01.lab.local
ACTIONS
Summary
Monitor
Configure
Permissions
VMs
Datastores
Networks
Hypervisor: VMware ESXi, 6.5.0, 5969303
Model: VMware Virtual Platform
Processor Type: Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
Logical Processors: 2
NICs: 1
Virtual Machines: 2
State: Connected
Uptime: 11 hours
CPU
Free: 4.04 GHz
Used: 761 MHz
Capacity: 4.8 GHz
Memory
Free: 437.49 MB
Used: 3.57 GB
Capacity: 4 GB
Storage
Free: 120.05 GB
Used: 29.7 GB
Capacity: 149.75 GB

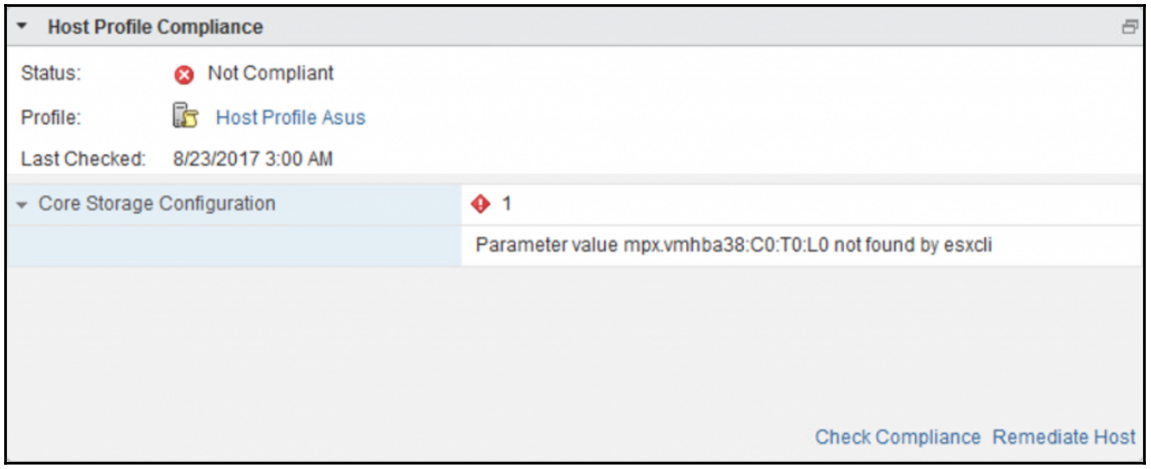

Tags & Custom Attributes
Tags
Custom Attributes
Tags
Categories
Tag Name
Category
Description
Bronze storage
Storage device
Poor storage performance
Gold storage
Storage device
Best storage performance
Silver storage
Storage device
Medium storage performance

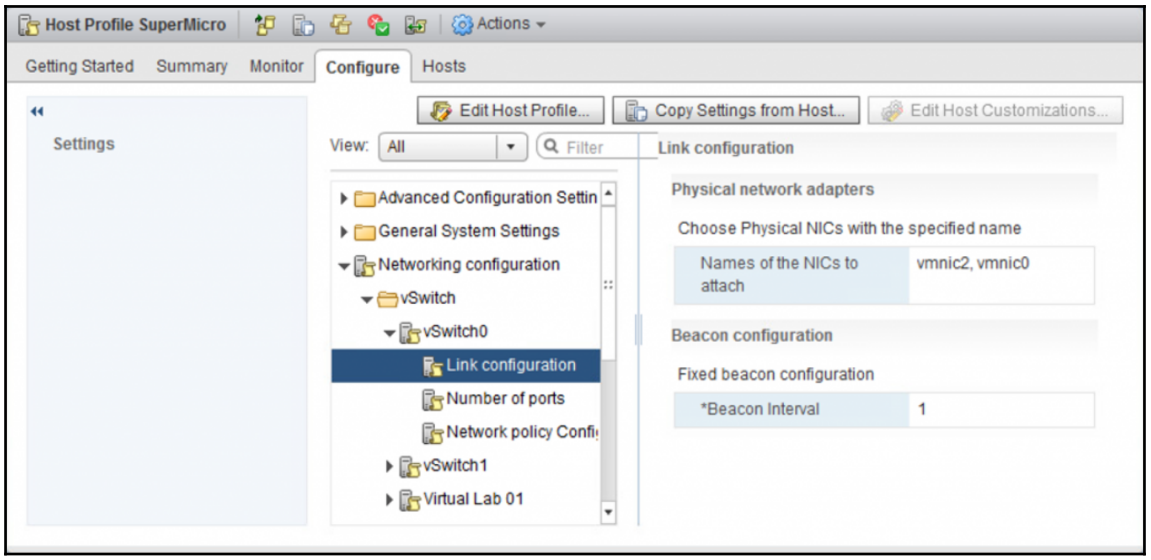

LAB
Actions
Getting Started
Summary
Monitor
Configure
Permissions
Hosts & Clusters
VMs
Datastores
Networks
Update Manager
Issues
Performance
Tasks & Events
Tasks
Events
Scheduled Tasks
To create a scheduled task, select an action from the Schedule New Task drop-down menu from below. You
Lists, click the Actions menu, and press Ctrl. The clock icon that appears when you press CTRL indicates the
such as Create Snapshot, or Add Host. Select an action and configure the scheduling options.
Schedule a New Task
Task
Schedule
Last Run
Last Run Result
Next Run
Scan for Updates
Weekly
9/4/2017 1:00 AM
Task: Scan for Updates

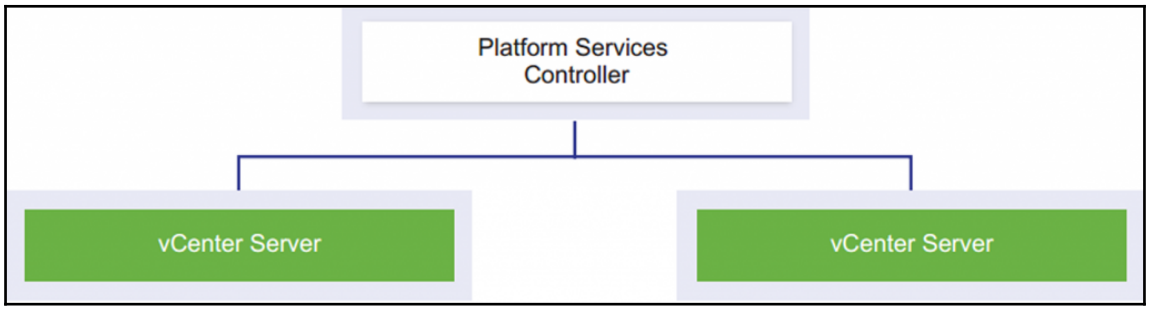

Navigator
Back
Host Profiles
2
Host Profile HPE
Host Profile SuperMicro
Host Profiles
Objects
Actions
Filter
Host Profile Name
1
Compliant Hosts
Not Compliant Hosts
Host Profile HPE
0
0
Host Profile SuperMicro
0
0
2 Objects
Export
Copy

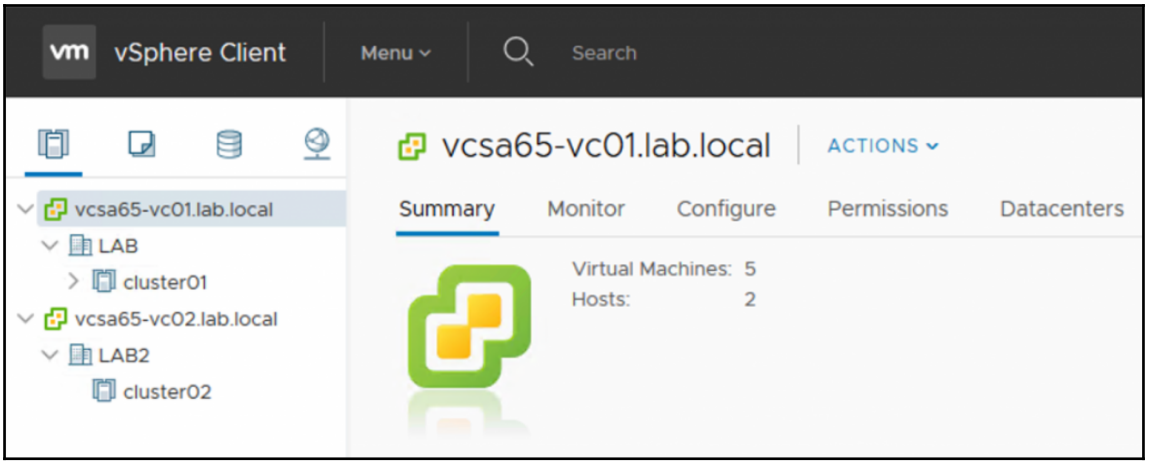

lab-dresxi01.nolabnoparty.local - Change Host Profile
1 Select Host profile
2 Customize hosts
Customize hosts
Filter
Required
Property Name
Path
Value
Yes
Host IPv4 address
Networking configuration > Host port group > Storage > IP a...
192.168.110.25
Yes
Subnet mask
Networking configuration > Host port group > Storage > IP a...
255.255.255.0
No
MAC Address
Networking configuration > Host port group > Storage > Dete...
00:50:56:62:3d:5e
No
MAC Address
Networking configuration > Host port group > Management ...
68:05:ca:05:1e:77
Yes
Name for this host
Networking configuration > NetStack Instance > defaultTcpip...
esxi05
Yes
Host IPv4 address
Networking configuration > Host port group > Management ...
192.168.30.25
Yes
Subnet mask
Networking configuration > Host port group > Management ...
255.255.255.0
Yes
Local device name
Storage configuration > Native Multi-Pathing (NMP) > Storag...
mpx.vmhba38:C0:T0:L0
Back
Next
Finish
Cancel

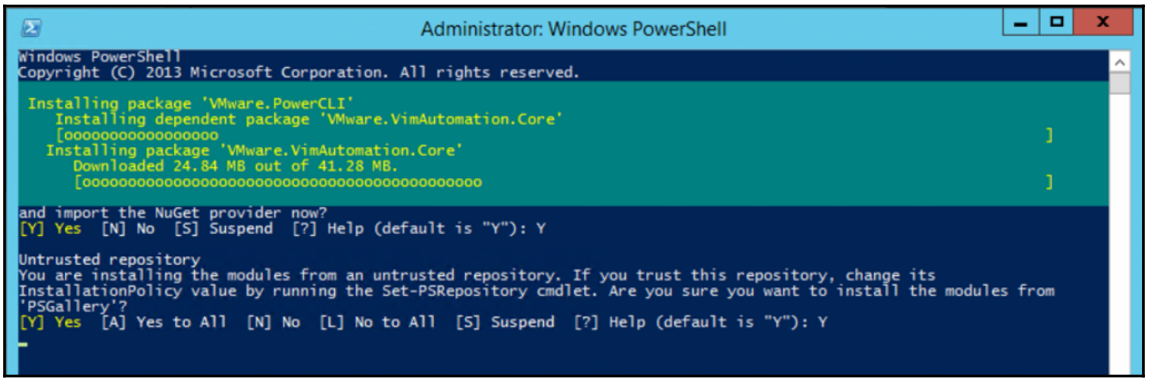

dresxi01.lab.local
Actions
Getting Star...
Summary
Monitor
Configure
Permissions
VMs
Resource P...
Datastores
Networks
Update Ma...
dresxi01.lab.local
Hypervisor: VMware ESXi, 6.5.0, 5310538
Model: System manufacturer System Product Name
Processor Type: Intel(R) Core(TM) i5-2500 CPU @ 3.30GHz
Logical Processors: 4
NICs: 3
Virtual Machines: 3
State: Connected
Uptime: 13 days
CPU
FREE: 13.58 GHz
USED: 21.00 MHz
CAPACITY: 13.60 GHz
MEMORY
FREE: 12.68 GB
USED: 3.03 GB
CAPACITY: 15.71 GB
STORAGE
FREE: 838.61 GB
USED: 89.69 GB
CAPACITY: 928.30 GB
Host is not in compliance with the attached profile.
Hardware
Configuration

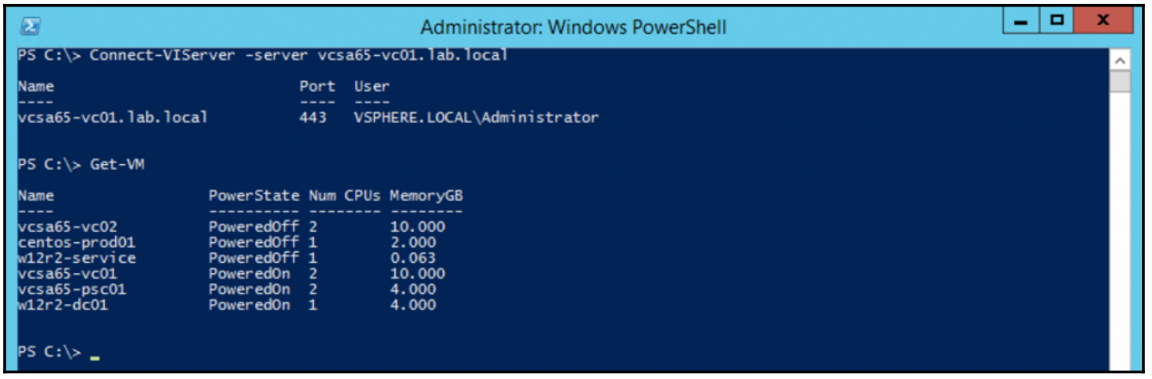

Host Profile Compliance
Status:
Not Compliant
Profile:
Host Profile Asus
Last Checked:
8/23/2017 3:00 AM
Core Storage Configuration
1
Parameter value mpx.vmhba38:C0:T0:L0 not found by esxcli
Check Compliance
Remediate Host

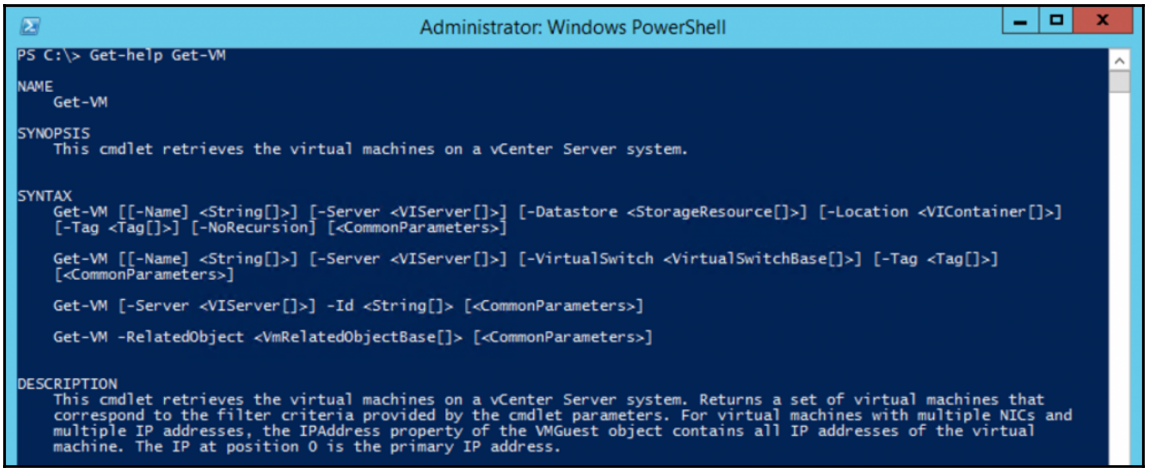

Host Profile SuperMicro
Actions
Getting Started
Summary
Monitor
Configure
Hosts
Settings
Edit Host Profile...
Copy Settings from Host...
Edit Host Customizations...
View:
All
Filter
Advanced Configuration Settin
General System Settings
Networking configuration
vSwitch
vSwitch0
Link configuration
Number of ports
Network policy Confi
vSwitch1
Virtual Lab 01
Link configuration
Physical network adapters
Choose Physical NICs with the specified name
Names of the NICs to attach
vmnic2, vmnic0
Beacon configuration
Fixed beacon configuration
*Beacon Interval
1

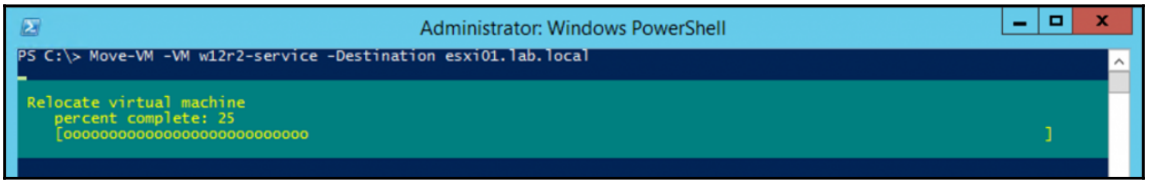

Platform Services Controller
vCenter Server
vCenter Server

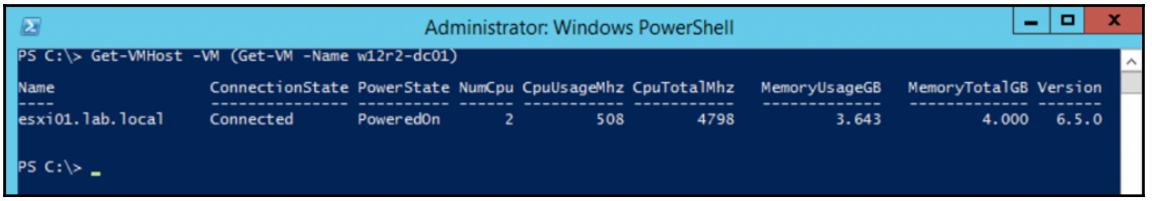

vSphere Client
Menu
Search
vcsa65-vc01.lab.local
ACTIONS
vcsa65-vc01.lab.local
LAB
cluster01
vcsa65-vc02.lab.local
LAB2
cluster02
Summary
Monitor
Configure
Permissions
Datacenters
Virtual Machines: 5
Hosts: 2

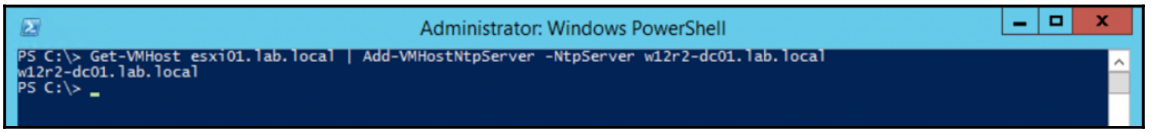

Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2013 Microsoft Corporation. All rights reserved.
Installing package 'VMware.PowerCLI'
Installing dependent package 'VMware.VimAutomation.Core'
Installing package 'VMware.VimAutomation.Core'
Downloaded 24.84 MB out of 41.28 MB.
and import the NuGet provider now?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): Y
Untrusted repository
You are installing the modules from an untrusted repository. If you trust this repository, change its
InstallationPolicy value by running the Set-PSRepository cmdlet. Are you sure you want to install the modules from
'PSGallery'?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "Y"): Y

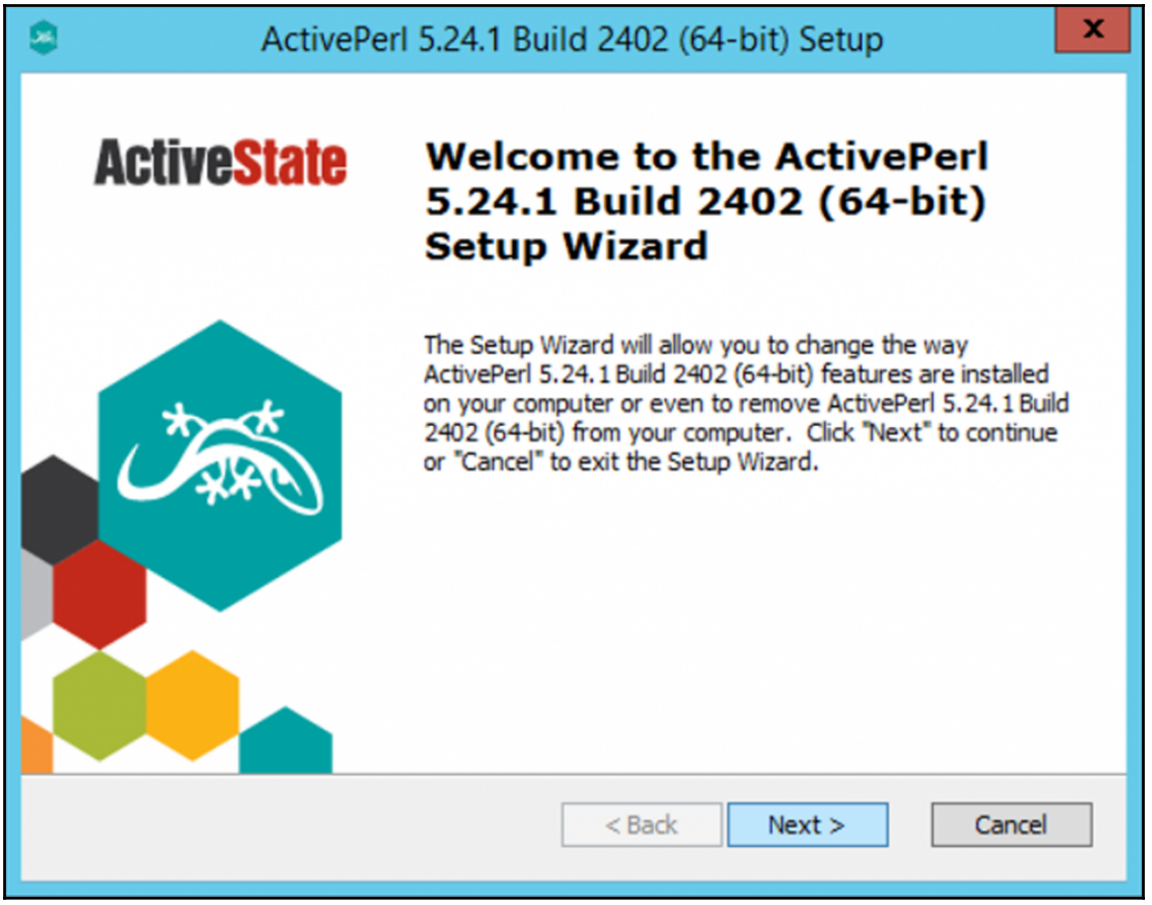

Administrator: Windows PowerShell
PS C:\> Connect-VIServer -server vcsa65-vc01.lab.local
Name Port User
vcsa65-vc01.lab.local 443 VSPHERE.LOCAL\Administrator
PS C:\> Get-VM
Name PowerState Num CPUs MemoryGB
vcsa65-vc02 PoweredOff 2 10.000
centos-prod01 PoweredOff 1 2.000
w12r2-service PoweredOff 1 0.063
vcsa65-vc01 PoweredOn 2 10.000
vcsa65-psc01 PoweredOn 2 4.000
w12r2-dc01 PoweredOn 1 4.000
PS C:\>


Administrator: Windows PowerShell
PS C:\> Get-help Get-VM
NAME
Get-VM
SYNOPSIS
This cmdlet retrieves the virtual machines on a vCenter Server system.
SYNTAX
Get-VM [[-Name] <String[]>] [-Server <VIServer[]>] [-Datastore <StorageResource[]>] [-Location <VIContainer[]>] [-Tag <Tag[]>] [-NoRecursion] [<CommonParameters>]
Get-VM [[-Name] <String[]>] [-Server <VIServer[]>] [-VirtualSwitch <VirtualSwitchBase[]>] [-Tag <Tag[]>] [<CommonParameters>]
Get-VM [-Server <VIServer[]>] -Id <String[]> [<CommonParameters>]
Get-VM -RelatedObject <VmRelatedObjectBase[]> [<CommonParameters>]
DESCRIPTION
This cmdlet retrieves the virtual machines on a vCenter Server system. Returns a set of virtual machines that correspond to the filter criteria provided by the cmdlet parameters. For virtual machines with multiple NICs and multiple IP addresses, the IPAddress property of the VMGuest object contains all IP addresses of the virtual machine. The IP at position 0 is the primary IP address.

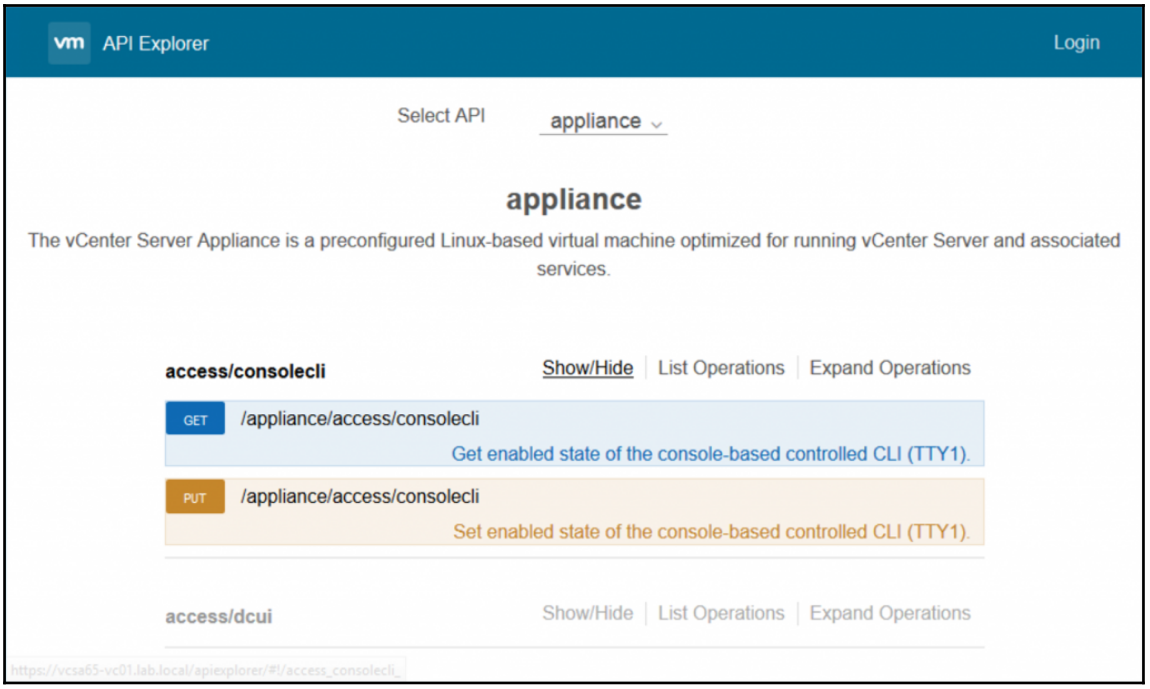

Administrator: Windows PowerShell
PS C:\> Move-VM -VM w12r2-service -Destination esxi01.lab.local
Relocate virtual machine
percent complete: 25
[ooooooooooooooooooooooooo]


Administrator: Windows PowerShell
PS C:\> Get-VMHost -VM (Get-VM -Name w12r2-dc01)
Name ConnectionState PowerState NumCpu CpuUsageMhz CpuTotalMhz MemoryUsageGB MemoryTotalGB Version
esxi01.lab.local Connected PoweredOn 2 508 4798 3.643 4.000 6.5.0
PS C:\>


Administrator: Windows PowerShell
PS C:\> Get-VMHost esxi01.lab.local | Add-VMHostNtpServer -NtpServer w12r2-dc01.lab.local
w12r2-dc01.lab.local
PS C:\>

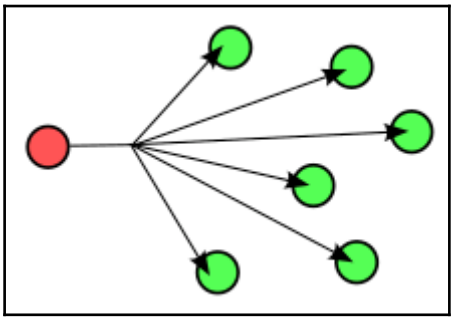


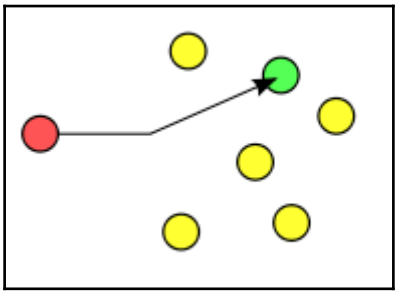

```
C:\>ppm install XML-LibXML
Downloading XML-LibXML-2.0129...done
Downloading XML-SAX-Base-1.09...done
Downloading XML-SAX-0.99...done
Downloading XML-NamespaceSupport-1.12...done
Unpacking XML-LibXML-2.0129...done
Unpacking XML-SAX-Base-1.09...done
Unpacking XML-SAX-0.99...done
Unpacking XML-NamespaceSupport-1.12...done
Generating HTML for XML-LibXML-2.0129...done
Generating HTML for XML-SAX-Base-1.09...done
Generating HTML for XML-SAX-0.99...done
Generating HTML for XML-NamespaceSupport-1.12...done
Updating files in site area...done
 112 files installed

C:\>_
```

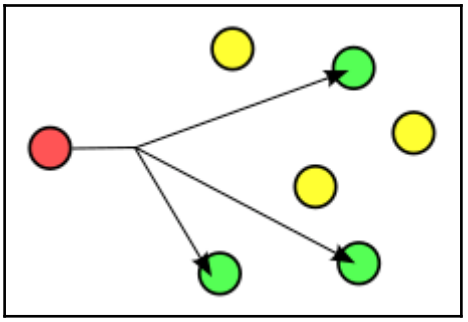

vm API Explorer
Login
Select API
appliance
appliance
The vCenter Server Appliance is a preconfigured Linux-based virtual machine optimized for running vCenter Server and associated services.
access/consolecli
Show/Hide
List Operations
Expand Operations
GET
/appliance/access/consolecli
Get enabled state of the console-based controlled CLI (TTY1).
PUT
/appliance/access/consolecli
Set enabled state of the console-based controlled CLI (TTY1).
access/dcui
Show/Hide
List Operations
Expand Operations
https://vcsa65-vc01.lab.local/apiexplorer/#!/access_consolecli_

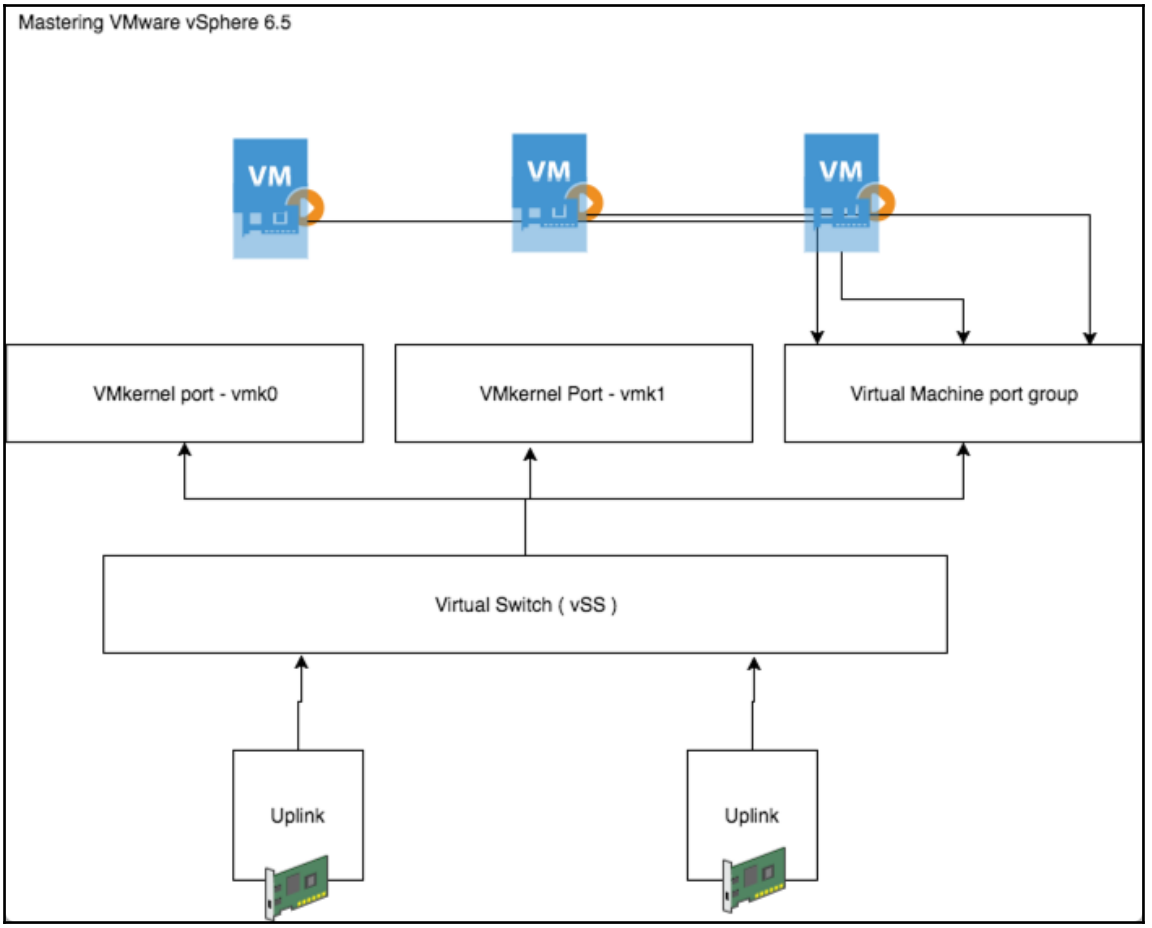
Chapter 6: Advanced Network Management

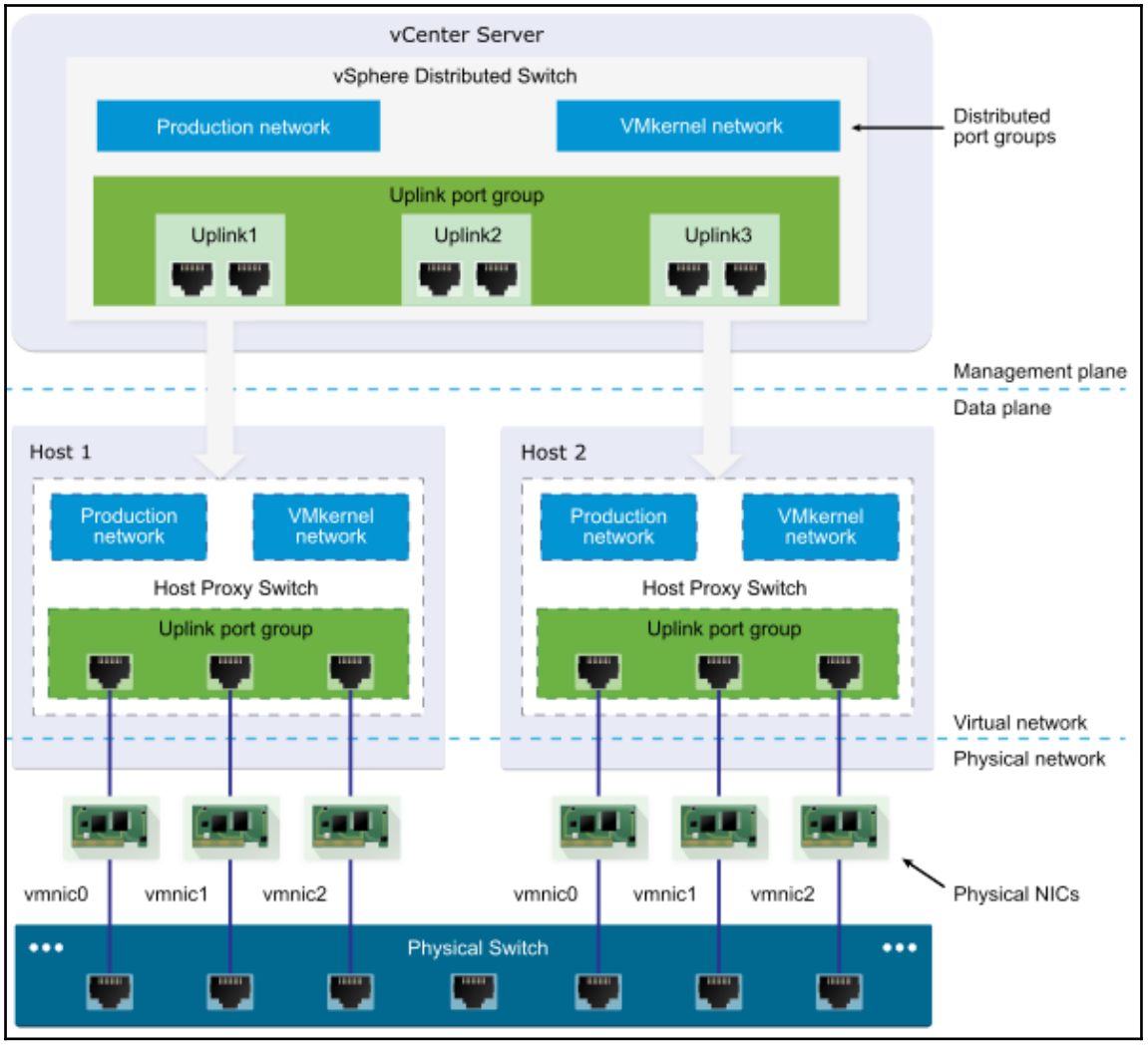
OSI Model			
Layer		Protocol data unit (PDU)	Function[3]
Host layers	7. Application	Data	High-level APIs, including resource sharing, remote file access
	6. Presentation		Translation of data between a networking service and an application; including character encoding, data compression and encryption/decryption
	5. Session		Managing communication sessions, i.e. continuous exchange of information in the form of multiple back-and-forth transmissions between two nodes
	4. Transport	Segment (TCP) / Datagram (UDP)	Reliable transmission of data segments between points on a network, including segmentation, acknowledgement and multiplexing
Media layers	3. Network	Packet	Structuring and managing a multi-node network, including addressing, routing and traffic control
	2. Data link	Frame	Reliable transmission of data frames between two nodes connected by a physical layer
	1. Physical	Bit	Transmission and reception of raw bit streams over a physical medium

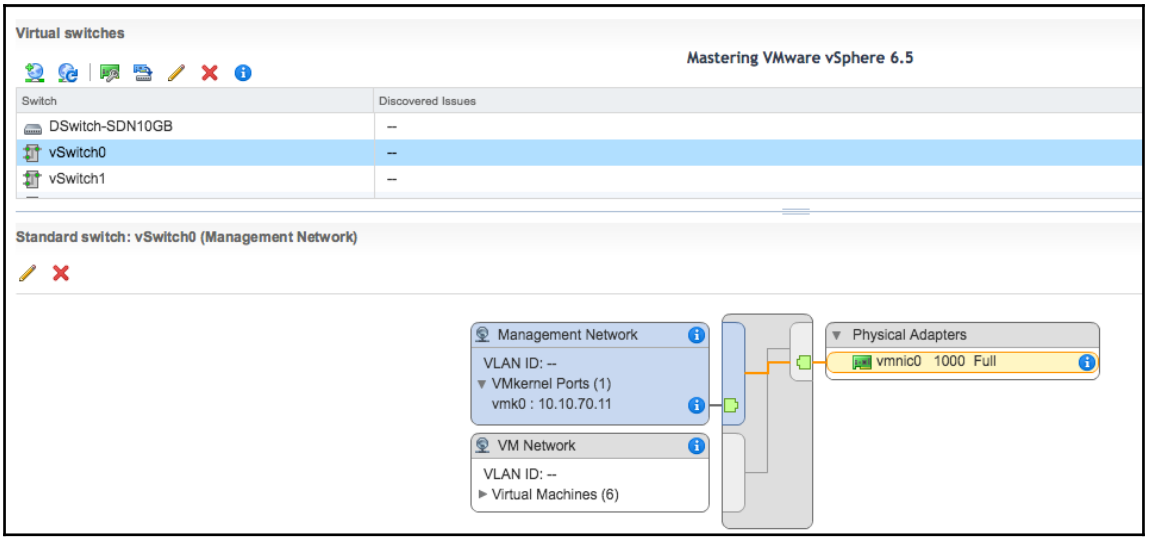


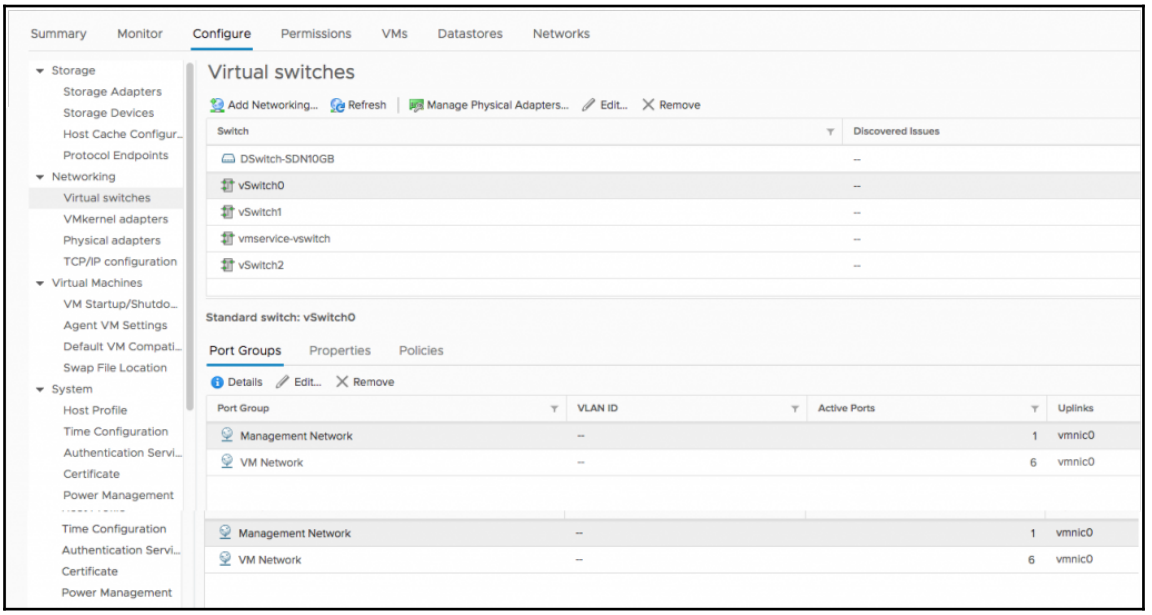


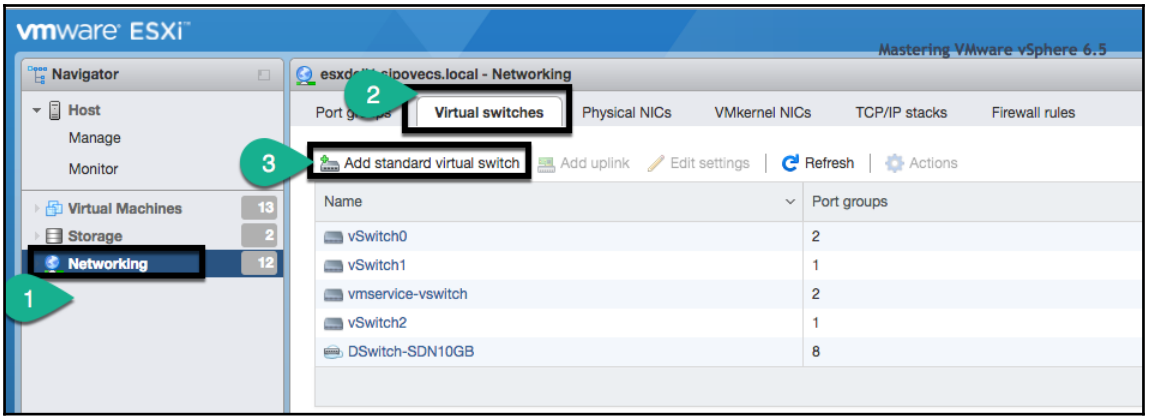



Mastering VMware vSphere 6.5
VM
VM
VM
VMkernel port - vmk0
VMkernel Port - vmk1
Virtual Machine port group
Virtual Switch (vSS)
Uplink
Uplink

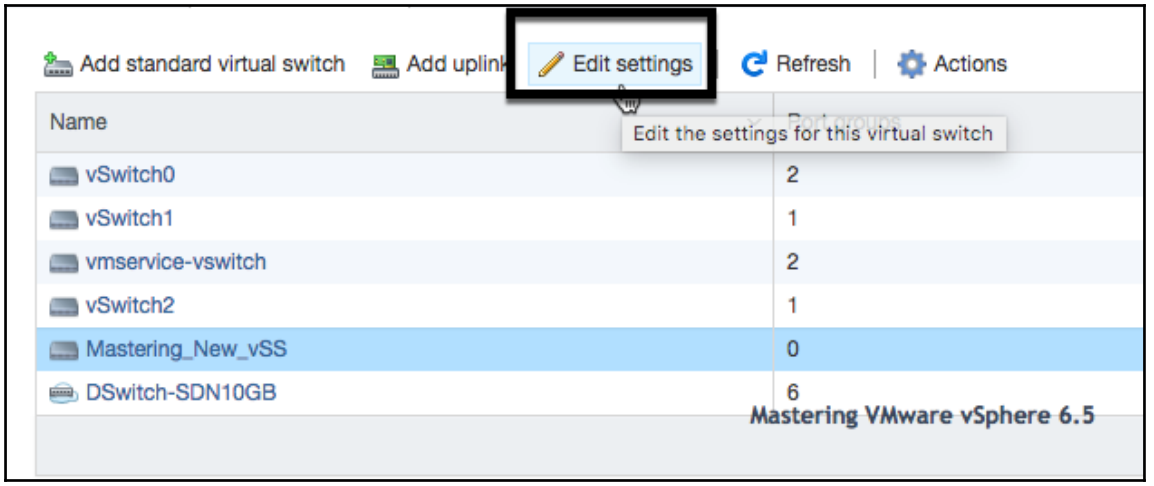

vCenter Server
vSphere Distributed Switch
Production network
VMkernel network
Distributed port groups
Uplink port group
Uplink1
Uplink2
Uplink3
Management plane
Data plane
Host 1
Production network
VMkernel network
Host Proxy Switch
Uplink port group
Host 2
Production network
VMkernel network
Host Proxy Switch
Uplink port group
Virtual network
Physical network
vmnic0
vmnic1
vmnic2
vmnic0
vmnic1
vmnic2
Physical NICs
Physical Switch


Virtual switches
Mastering VMware vSphere 6.5
Switch
Discovered Issues
DSwitch-SDN10GB
vSwitch0
vSwitch1
Standard switch: vSwitch0 (Management Network)
Management Network
VLAN ID: --
VMkernel Ports (1)
vmk0 : 10.10.70.11
VM Network
VLAN ID: --
Virtual Machines (6)
Physical Adapters
vmnic0 1000 Full

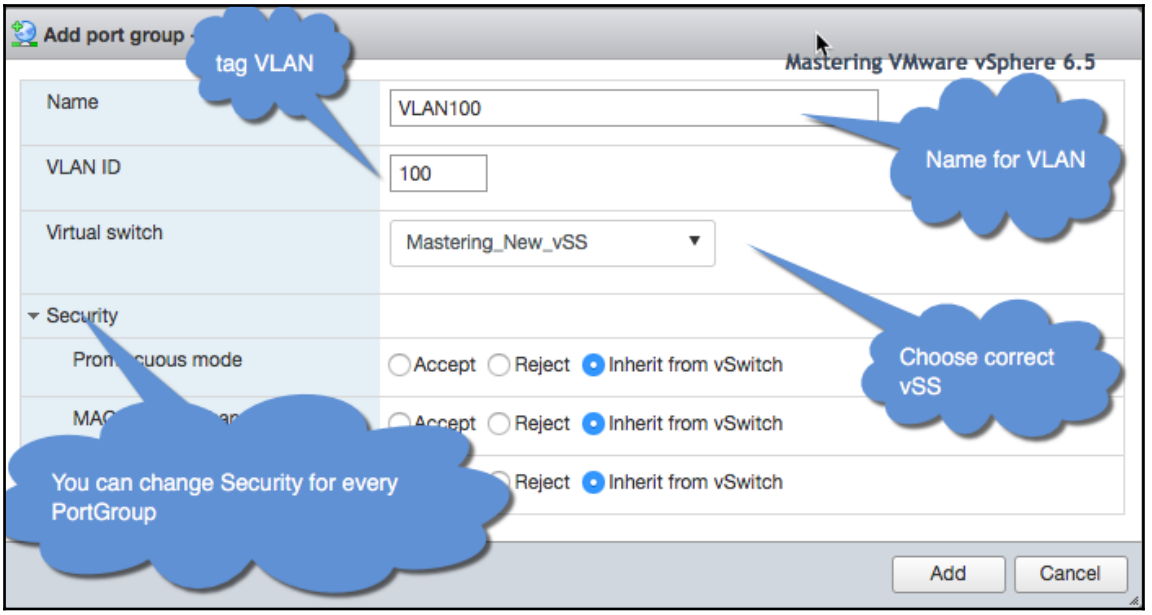

Summary
Monitor
Configure
Permissions
VMs
Datastores
Networks
Storage
Storage Adapters
Storage Devices
Host Cache Configur...
Protocol Endpoints
Networking
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration
Virtual Machines
VM Startup/Shutdo...
Agent VM Settings
Default VM Compati...
Swap File Location
System
Host Profile
Time Configuration
Authentication Servi...
Certificate
Power Management
Virtual switches
Add Networking...
Refresh
Manage Physical Adapters...
Edit...
Remove
Switch
Discovered Issues
DSwitch-SDN10GB
vSwitch0
vSwitch1
vmservice-vswitch
vSwitch2
Standard switch: vSwitch0
Port Groups
Properties
Policies
Details
Edit...
Remove
Port Group
VLAN ID
Active Ports
Uplinks
Management Network
VM Network

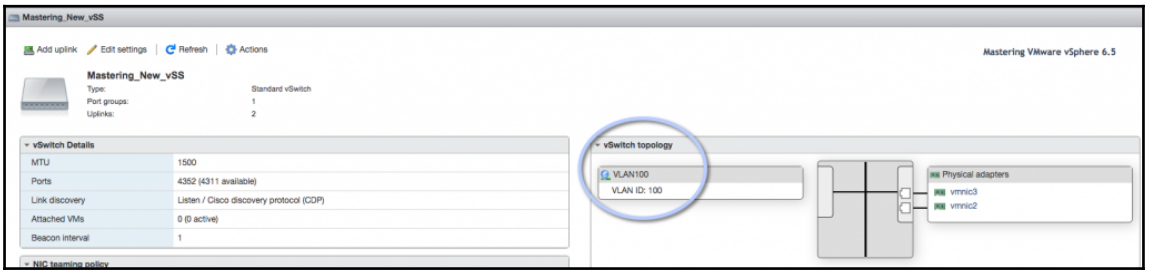

vmware ESXi
Mastering VMware vSphere 6.5
Navigator
Host
Manage
Monitor
Virtual Machines 13
Storage 2
Networking 12
1
2
3
Virtual switches
Physical NICs
VMkernel NICs
TCP/IP stacks
Firewall rules
Add standard virtual switch
Add uplink
Edit settings
Refresh
Actions
Name
Port groups
vSwitch0 2
vSwitch1 1
vmservice-vswitch 2
vSwitch2 1
DSwitch-SDN10GB 8

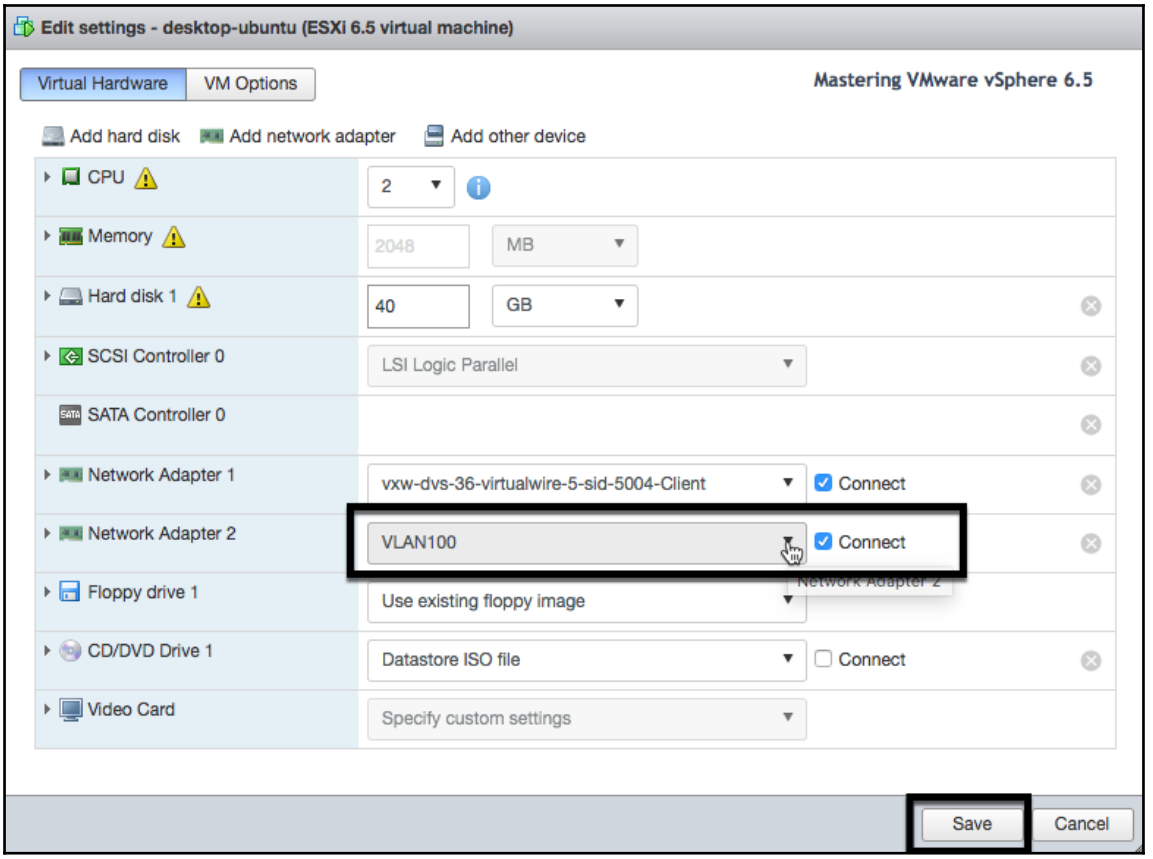

Add standard virtual switch - Mastering_New_vSS
Add uplink
You can add uplink
vSwitch Name
Mastering_New_vSS
Set name for vSS
MTU
1500
Uplink 1
vmnic2 - Down
Choose vmnic for this vSS
Link discovery
Mode
Listen
Protocol
Cisco discovery protocol (CDP)
With vSS is possible use only CDP.
Security
Promiscuous mode
Accept Reject
MAC address changes
Accept Reject
Forged transmits
Accept Reject
Security (later we describe deep)
Mastering VMware vSphere 6.5
Add
Cancel

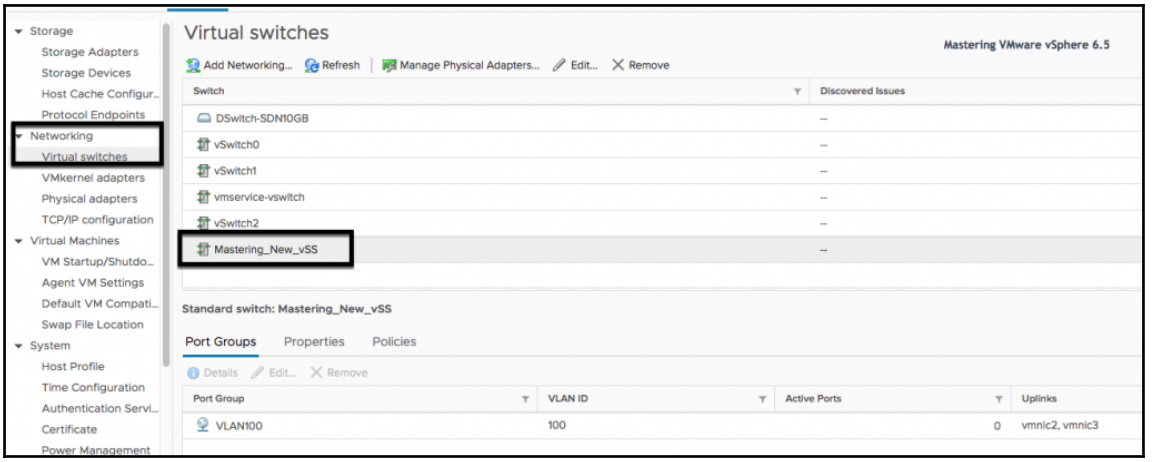

Add standard virtual switch
Add uplink
Edit settings
Refresh
Actions
Edit the settings for this virtual switch
Name
vSwitch0
2
vSwitch1
1
vmservice-vswitch
2
vSwitch2
1
Mastering_New_vSS
0
DSwitch-SDN10GB
6
Mastering VMware vSphere 6.5

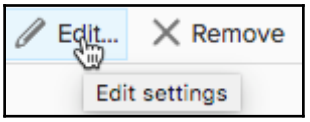

vmware ESXi
Mastering VMware vSphere 6.5
Navigator
Host
Manage
Monitor
Virtual Machines
13
Storage
2
Networking
12
esxdell1.sipovecs.local - Networking
1
Port groups
Virtual switches
2
Add port group
Edit settings
Name
DPortGroup-VLAN230-MX
DPortGroup-VLAN240-MX

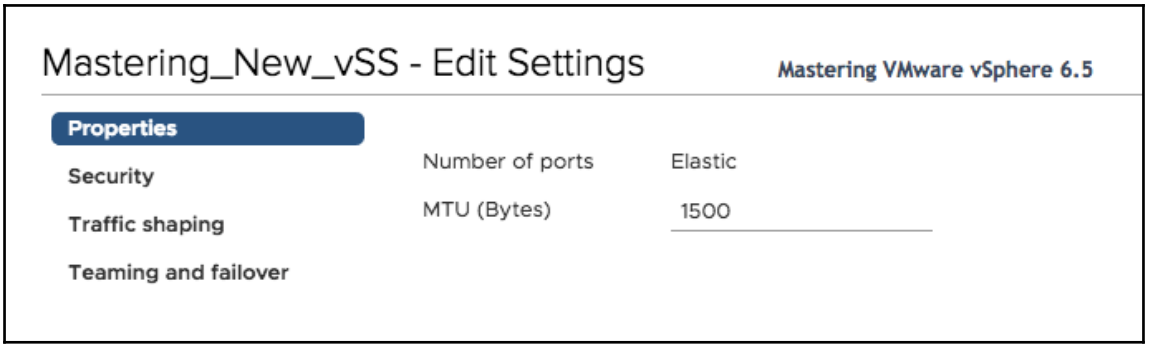

Add port group
tag VLAN
Mastering VMware vSphere 6.5
Name
VLAN100
Name for VLAN
VLAN ID
100
Virtual switch
Mastering_New_vSS
Choose correct vSS
Security
Accept
Reject
Inherit from vSwitch
You can change Security for every PortGroup
Add
Cancel

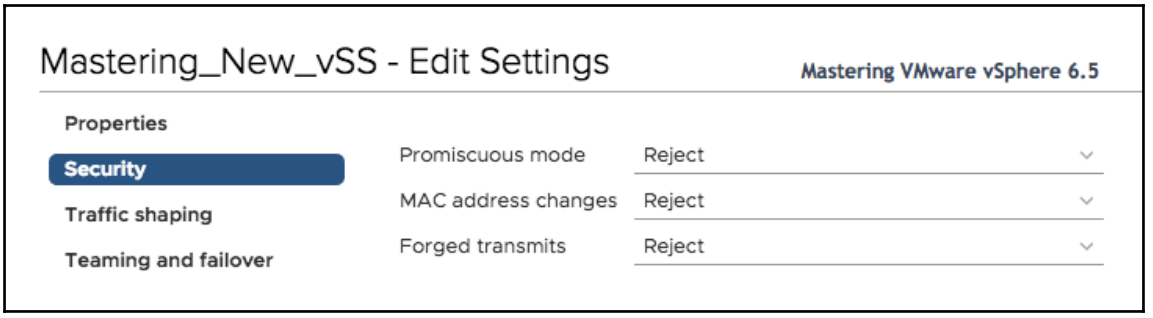

Mastering_New_vSS
Add uplink
Edit settings
Refresh
Actions
Mastering VMware vSphere 6.5
Mastering_New_vSS
Type:
Standard vSwitch
Port groups:
1
Uplinks:
2
vSwitch Details
MTU
1500
Ports
4352 (4311 available)
Link discovery
Listen / Cisco discovery protocol (CDP)
Attached VMs
0 (0 active)
Beacon interval
1
NIC teaming policy
vSwitch topology
VLAN100
VLAN ID: 100
Physical adapters
vmnic3
vmnic2

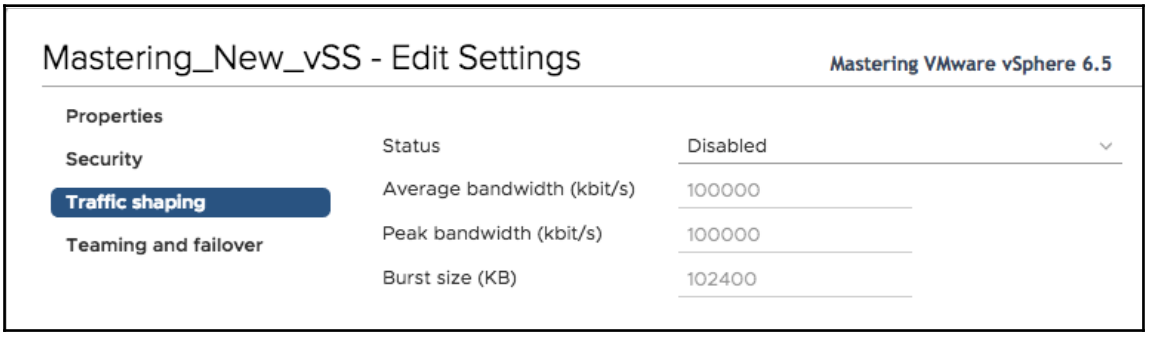

Edit settings - desktop-ubuntu (ESXi 6.5 virtual machine)
Virtual Hardware
VM Options
Mastering VMware vSphere 6.5
Add hard disk
Add network adapter
Add other device
CPU
2
Memory
2048
MB
Hard disk 1
40
GB
SCSI Controller 0
LSI Logic Parallel
SATA Controller 0
Network Adapter 1
vxw-dvs-36-virtualwire-5-sid-5004-Client
Connect
Network Adapter 2
VLAN100
Connect
Floppy drive 1
Use existing floppy image
CD/DVD Drive 1
Datastore ISO file
Connect
Video Card
Specify custom settings
Save
Cancel

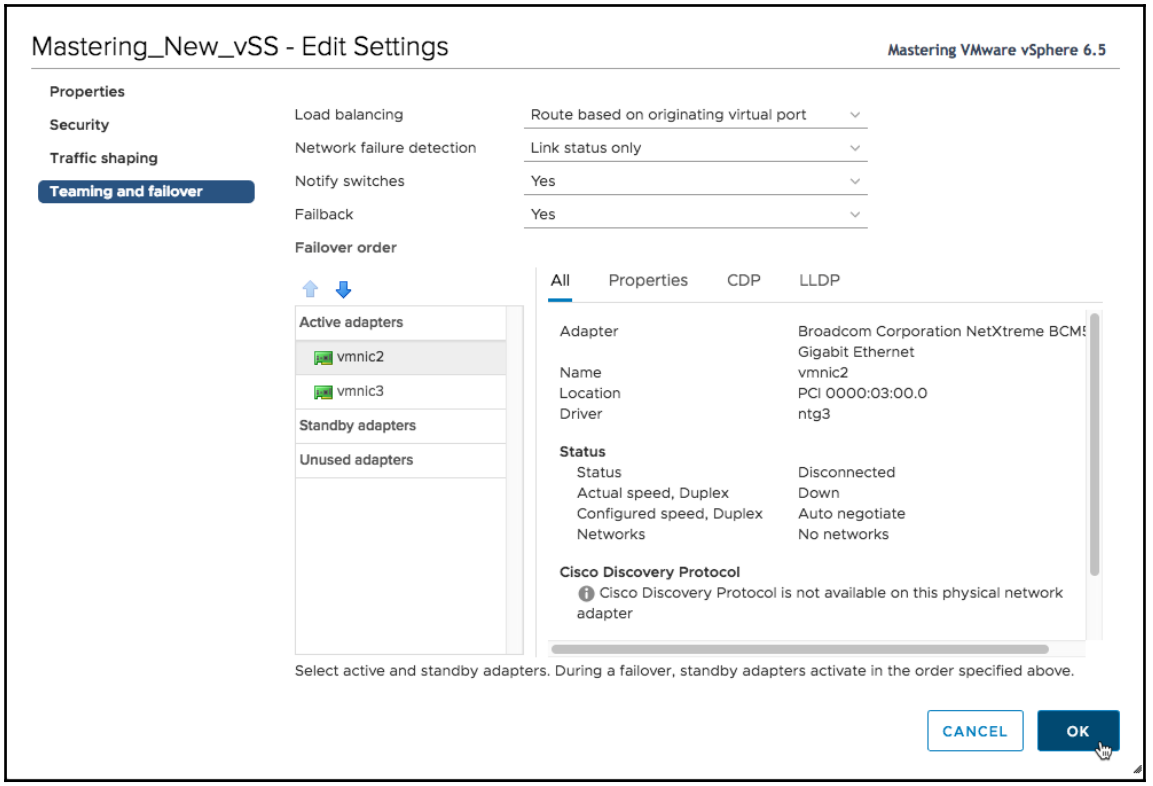

Storage
Storage Adapters
Storage Devices
Host Cache Configur...
Protocol Endpoints
Networking
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration
Virtual Machines
VM Startup/Shutdo...
Agent VM Settings
Default VM Compati...
Swap File Location
System
Host Profile
Time Configuration
Authentication Servi...
Certificate
Power Management
Virtual switches
Mastering VMware vSphere 6.5
Add Networking...
Refresh
Manage Physical Adapters...
Edit...
Remove
Switch
Discovered Issues
DSwitch-SDN10GB
vSwitch0
vSwitch1
vmservice-vswitch
vSwitch2
Mastering_New_vSS
Standard switch: Mastering_New_vSS
Port Groups
Properties
Policies
Details
Edit...
Remove
Port Group
VLAN ID
Active Ports
Uplinks
VLAN100
100
0
vmnic2, vmnic3

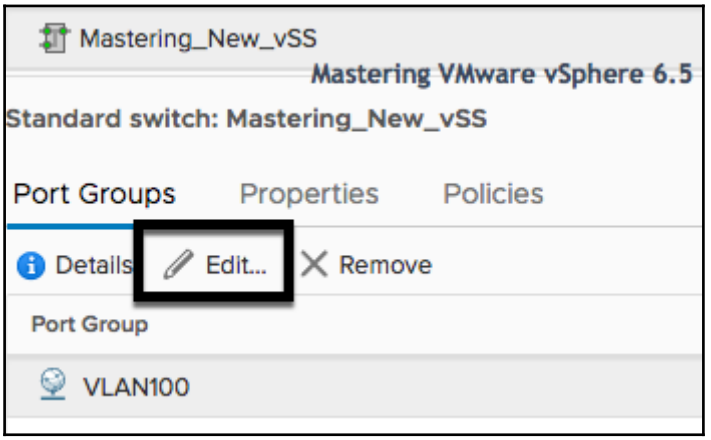

Edit...
Remove
Edit settings


Mastering_New_vSS - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Number of ports
Elastic
MTU (Bytes)
1500

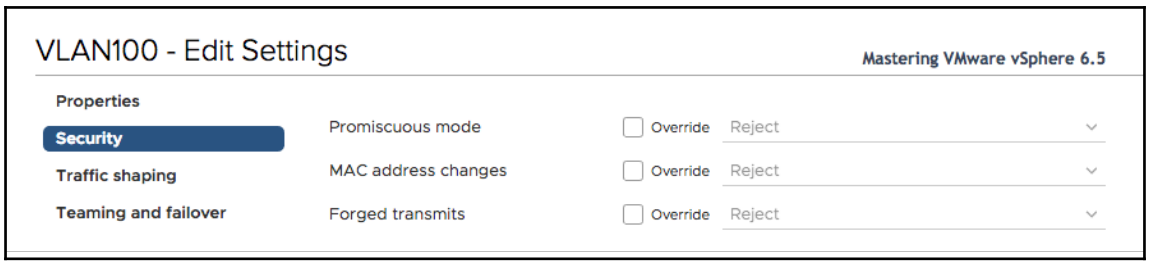

Mastering_New_vSS - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Promiscuous mode
Reject
MAC address changes
Reject
Forged transmits
Reject

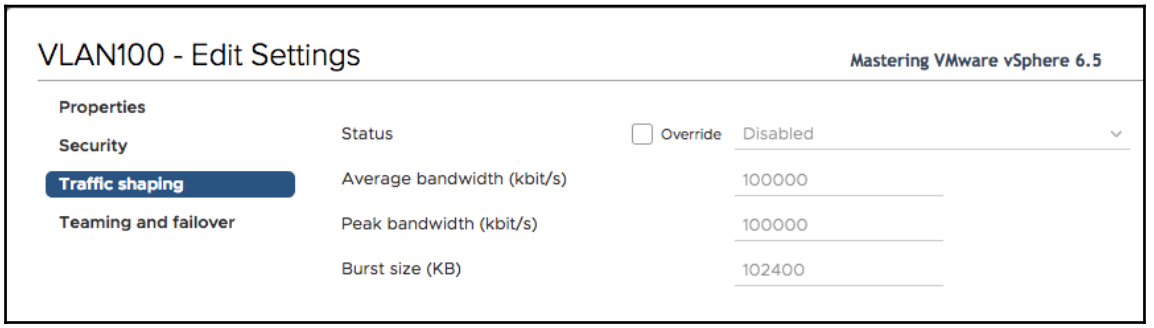

Mastering_New_vSS - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Status
Disabled
Average bandwidth (kbit/s)
100000
Peak bandwidth (kbit/s)
100000
Burst size (KB)
102400

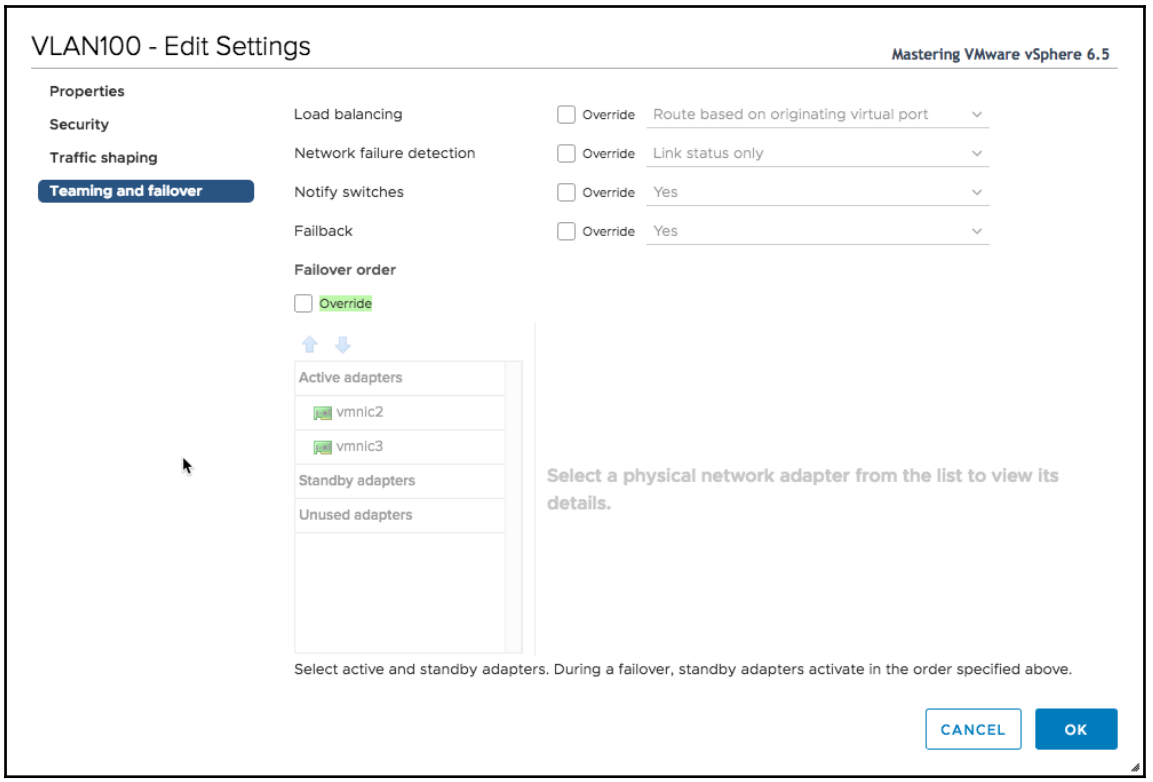

Mastering_New_vSS - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Load balancing
Route based on originating virtual port
Network failure detection
Link status only
Notify switches
Yes
Failback
Yes
Failover order
Active adapters
vmnic2
vmnic3
Standby adapters
Unused adapters
All
Properties
CDP
LLDP
Adapter
Broadcom Corporation NetXtreme BCM
Gigabit Ethernet
Name
vmnic2
Location
PCI 0000:03:00.0
Driver
ntg3
Status
Status
Disconnected
Actual speed, Duplex
Down
Configured speed, Duplex
Auto negotiate
Networks
No networks
Cisco Discovery Protocol
Cisco Discovery Protocol is not available on this physical network adapter
Select active and standby adapters. During a failover, standby adapters activate in the order specified above.
CANCEL
OK

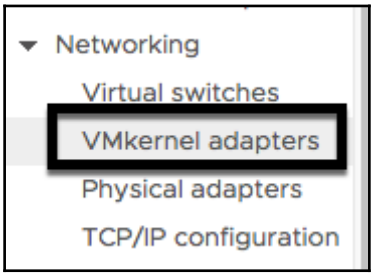

Mastering_New_vSS
Mastering VMware vSphere 6.5
Standard switch: Mastering_New_vSS
Port Groups
Properties
Policies
Details
Edit...
Remove
Port Group
VLAN100

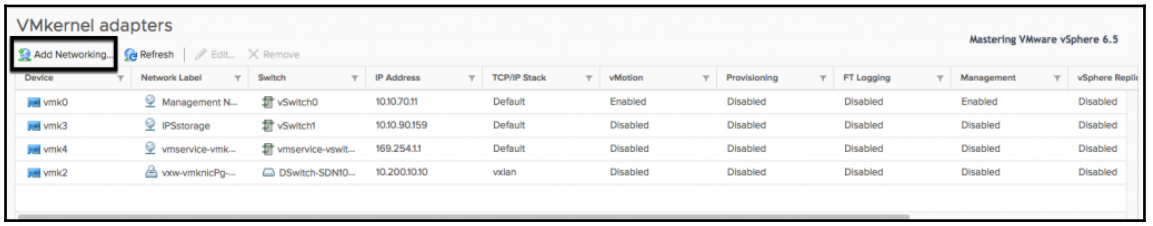

VLAN100 - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Network label
VLAN100
VLAN ID
100

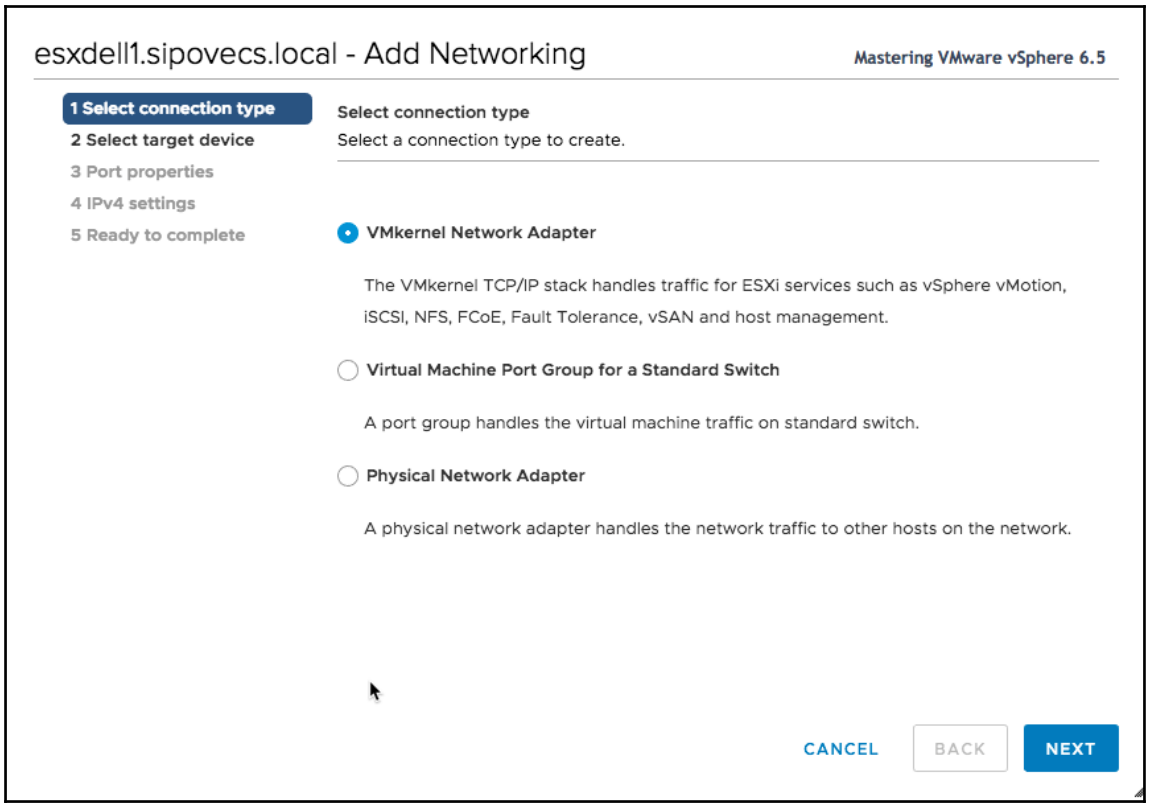

VLAN100 - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Promiscuous mode
Override
Reject
MAC address changes
Override
Reject
Forged transmits
Override
Reject

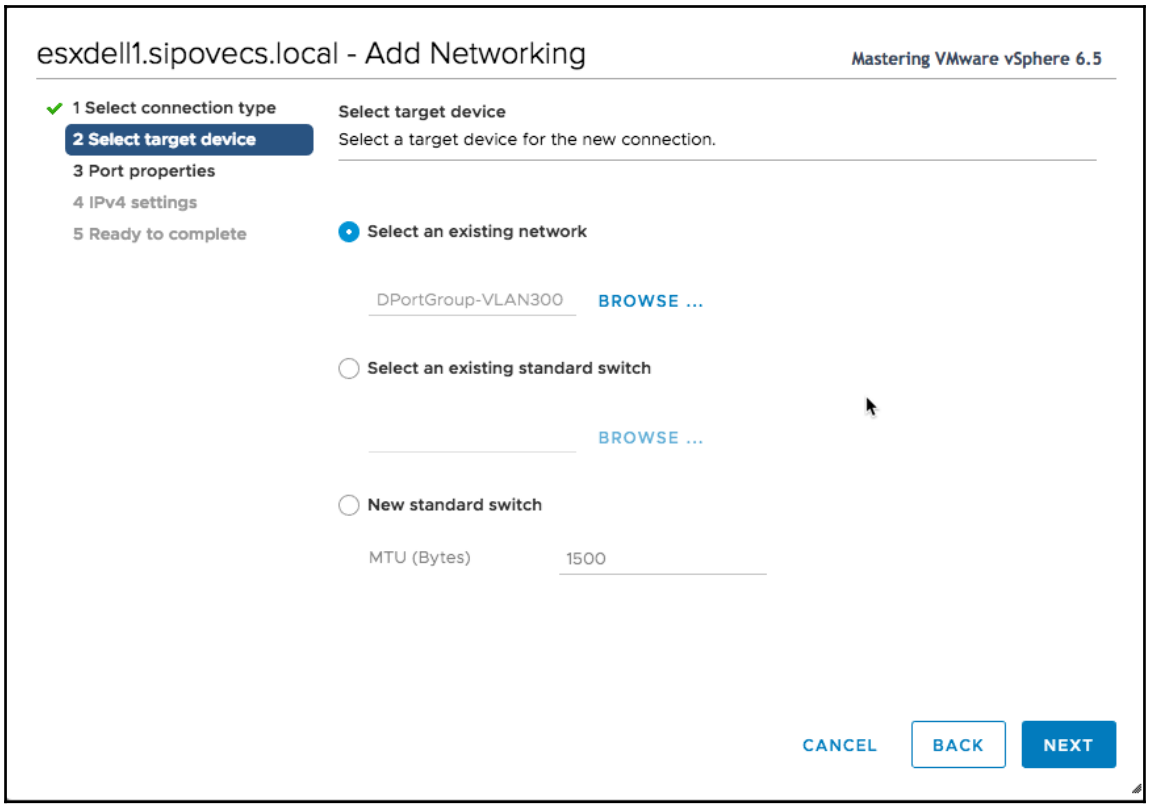

VLAN100 - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Status
Override
Disabled
Average bandwidth (kbit/s)
100000
Peak bandwidth (kbit/s)
100000
Burst size (KB)
102400

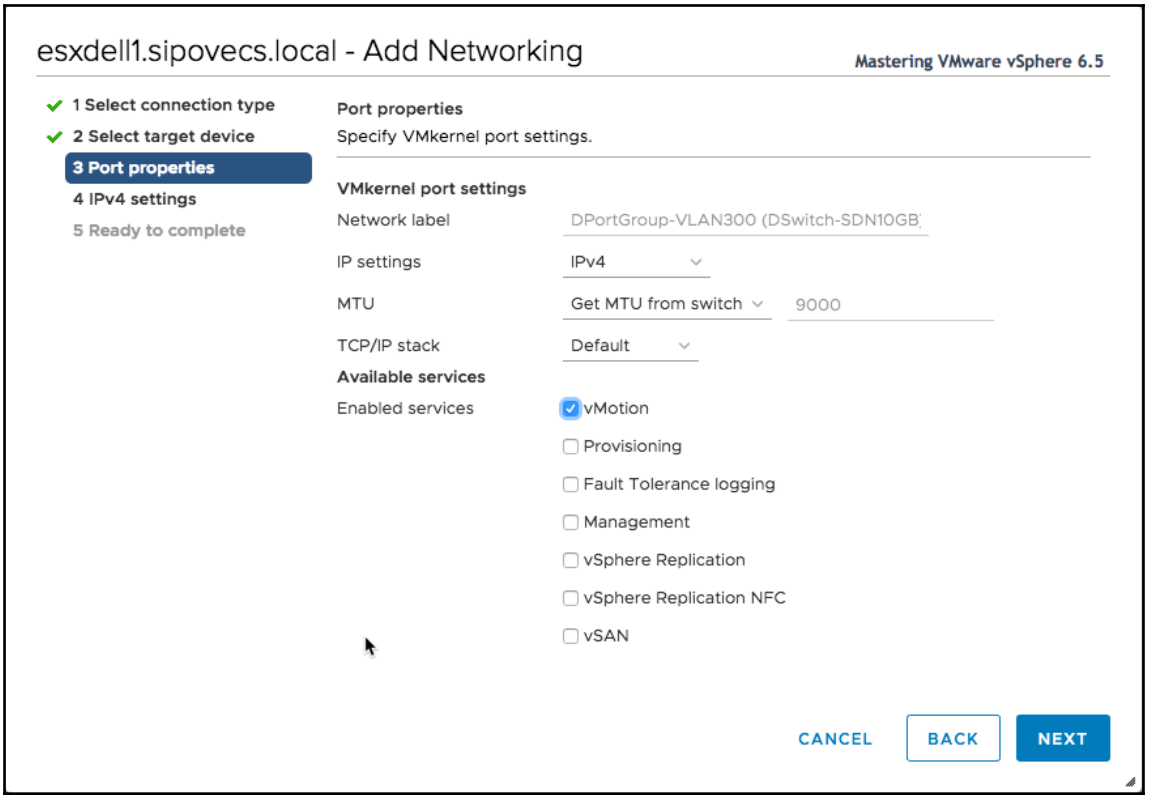

VLAN100 - Edit Settings
Mastering VMware vSphere 6.5
Properties
Security
Traffic shaping
Teaming and failover
Load balancing
Override
Route based on originating virtual port
Network failure detection
Override
Link status only
Notify switches
Override
Yes
Failback
Override
Yes
Failover order
Override
Active adapters
vmnic2
vmnic3
Standby adapters
Unused adapters
Select a physical network adapter from the list to view its details.
Select active and standby adapters. During a failover, standby adapters activate in the order specified above.
CANCEL
OK

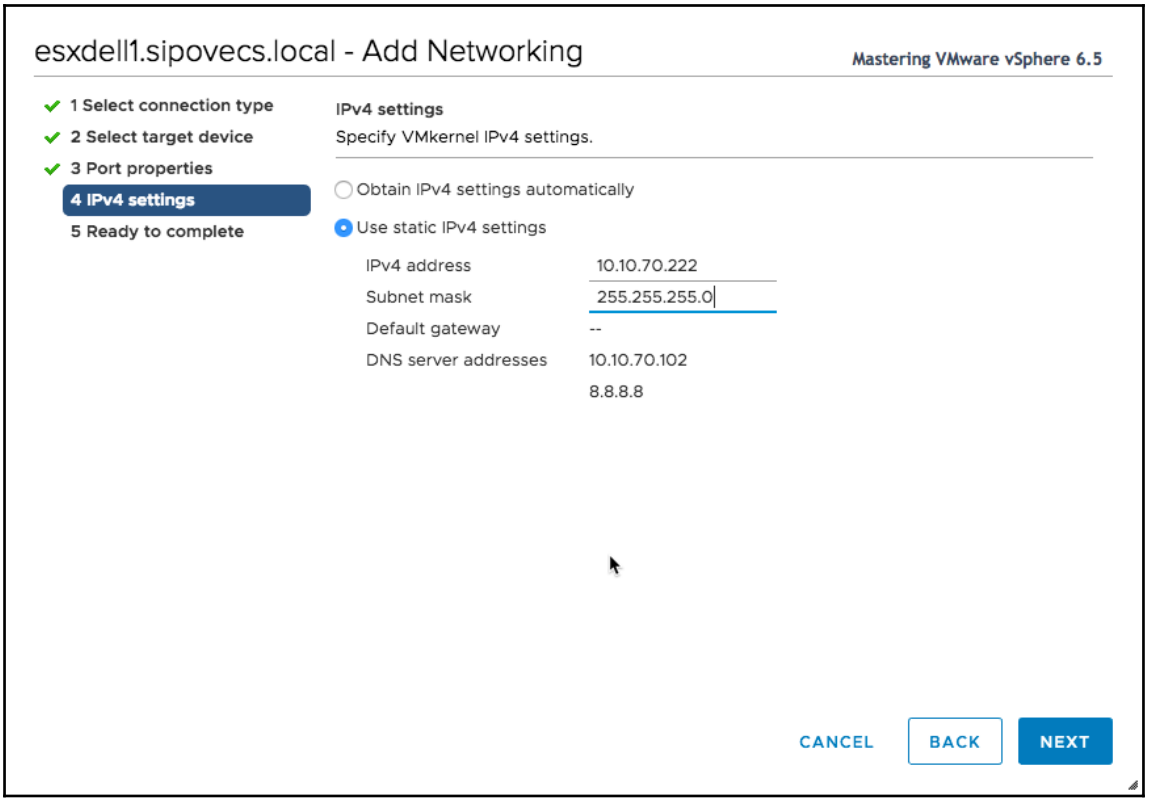

Networking
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration

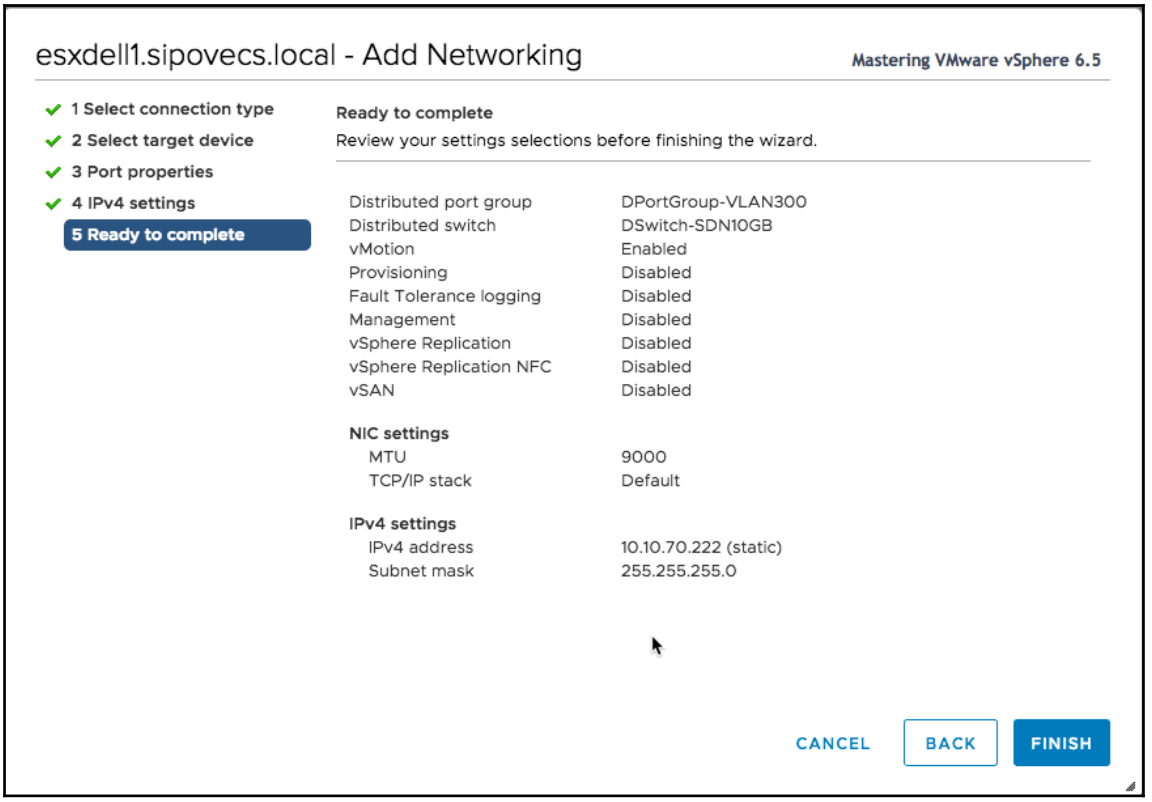

VMkernel adapters
Mastering VMware vSphere 6.5
Add Networking...
Refresh
Edit...
Remove
Device
Network Label
Switch
IP Address
TCP/IP Stack
vMotion
Provisioning
FT Logging
Management
vSphere Repli
vmk0
Management N...
vSwitch0
10.10.70.11
Default
Enabled
Disabled
Disabled
Enabled
Disabled
vmk3
IPSstorage
vSwitch1
10.10.90.159
Default
Disabled
Disabled
Disabled
Disabled
Disabled
vmk4
vmservice-vmk...
vmservice-vswit...
169.254.1.1
Default
Disabled
Disabled
Disabled
Disabled
Disabled
vmk2
vxw-vmknicPg-...
DSwitch-SDN10...
10.200.10.10
vxlan
Disabled
Disabled
Disabled
Disabled
Disabled


esxdell1.sipovecs.local - Add Networking
Mastering VMware vSphere 6.5
1 Select connection type
2 Select target device
3 Port properties
4 IPv4 settings
5 Ready to complete
Select connection type
Select a connection type to create.
VMkernel Network Adapter
The VMkernel TCP/IP stack handles traffic for ESXi services such as vSphere vMotion, iSCSI, NFS, FCoE, Fault Tolerance, vSAN and host management.
Virtual Machine Port Group for a Standard Switch
A port group handles the virtual machine traffic on standard switch.
Physical Network Adapter
A physical network adapter handles the network traffic to other hosts on the network.
CANCEL
BACK
NEXT

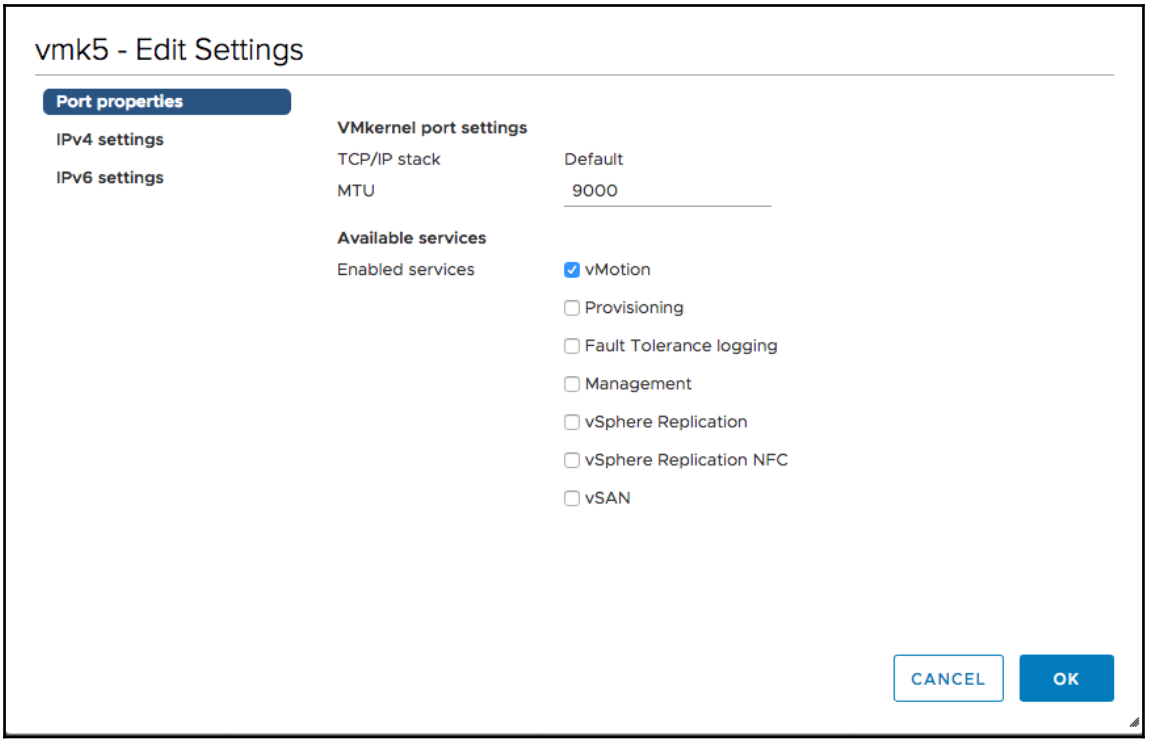

esxdell1.sipovecs.local - Add Networking
Mastering VMware vSphere 6.5
1 Select connection type
2 Select target device
3 Port properties
4 IPv4 settings
5 Ready to complete
Select target device
Select a target device for the new connection.
Select an existing network
DPortGroup-VLAN300
BROWSE ...
Select an existing standard switch
BROWSE ...
New standard switch
MTU (Bytes)
1500
CANCEL
BACK
NEXT

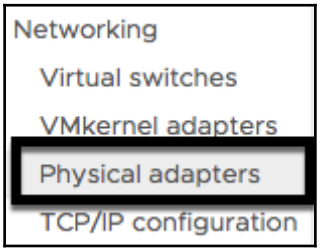

esxdell1.sipovecs.local - Add Networking
Mastering VMware vSphere 6.5
1 Select connection type
2 Select target device
3 Port properties
4 IPv4 settings
5 Ready to complete
Port properties
Specify VMkernel port settings.
VMkernel port settings
Network label
DPortGroup-VLAN300 (DSwitch-SDN10GB
IP settings
IPv4
MTU
Get MTU from switch
9000
TCP/IP stack
Default
Available services
Enabled services
vMotion
Provisioning
Fault Tolerance logging
Management
vSphere Replication
vSphere Replication NFC
vSAN
CANCEL
BACK
NEXT


esxdell1.sipovecs.local - Add Networking
Mastering VMware vSphere 6.5
1 Select connection type
2 Select target device
3 Port properties
4 IPv4 settings
5 Ready to complete
IPv4 settings
Specify VMkernel IPv4 settings.
Obtain IPv4 settings automatically
Use static IPv4 settings
IPv4 address
10.10.70.222
Subnet mask
255.255.255.0
Default gateway
--
DNS server addresses
10.10.70.102
8.8.8.8
CANCEL
BACK
NEXT

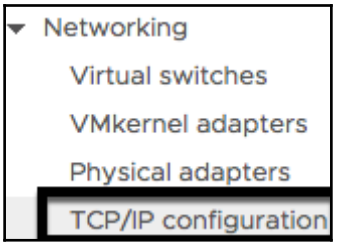

esxdell1.sipovecs.local - Add Networking
Mastering VMware vSphere 6.5
1 Select connection type
2 Select target device
3 Port properties
4 IPv4 settings
5 Ready to complete
Ready to complete
Review your settings selections before finishing the wizard.
Distributed port group DPortGroup-VLAN300
Distributed switch DSwitch-SDN10GB
vMotion Enabled
Provisioning Disabled
Fault Tolerance logging Disabled
Management Disabled
vSphere Replication Disabled
vSphere Replication NFC Disabled
vSAN Disabled
NIC settings
MTU 9000
TCP/IP stack Default
IPv4 settings
IPv4 address 10.10.70.222 (static)
Subnet mask 255.255.255.0
CANCEL
BACK
FINISH


Recent Tasks
Alarms
Task Name
Target
Status
Select virtual NIC
esxdell1.sipovecs.local
Completed
Add virtual NIC
esxdell1.sipovecs.local
Completed

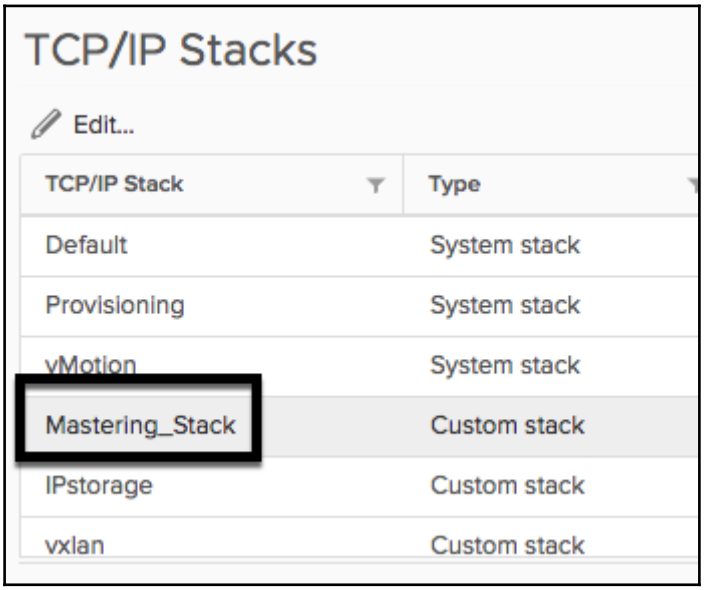


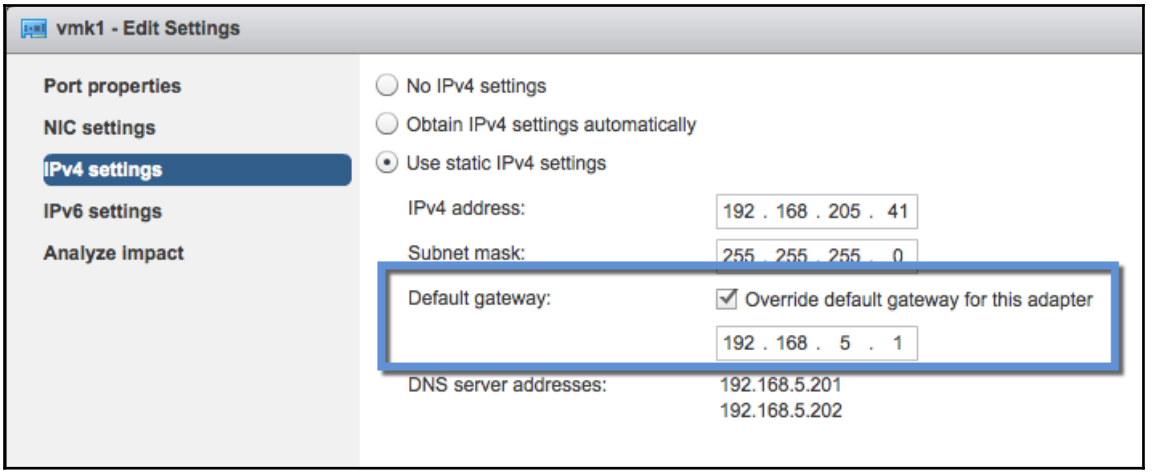


Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Supported
vmnic0	1000 Mb	1000 Mb	vSwitch0	44:a8:42:22:a0:fe	No networks	No
vmnic1	1000 Mb	1000 Mb	vSwitch1	44:a8:42:22:a0:ff	0.0.0.1-255.255.255.254	No
vmnic2	Down	Auto negotiate	Mastering_New_vSS	44:a8:42:22:a1:00	No networks	No
vmnic3	Down	Auto negotiate	Mastering_New_vSS	44:a8:42:22:a1:01	No networks	No
vmnic4	10000 Mb	10000 Mb	DSwitch-SDN10GB	00:10:86:82:26:e8	No networks	No
vmnic5	10000 Mb	10000 Mb	DSwitch-SDN10GB	00:10:86:82:26:e9	No networks	No

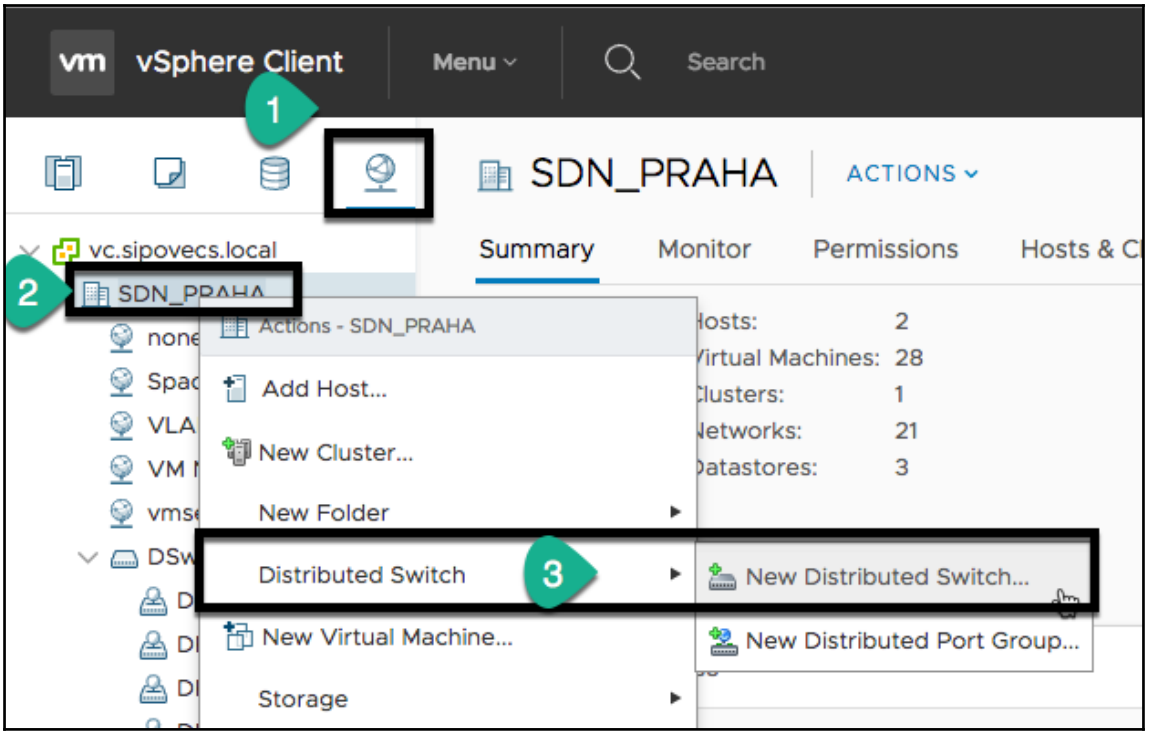

Networking
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration

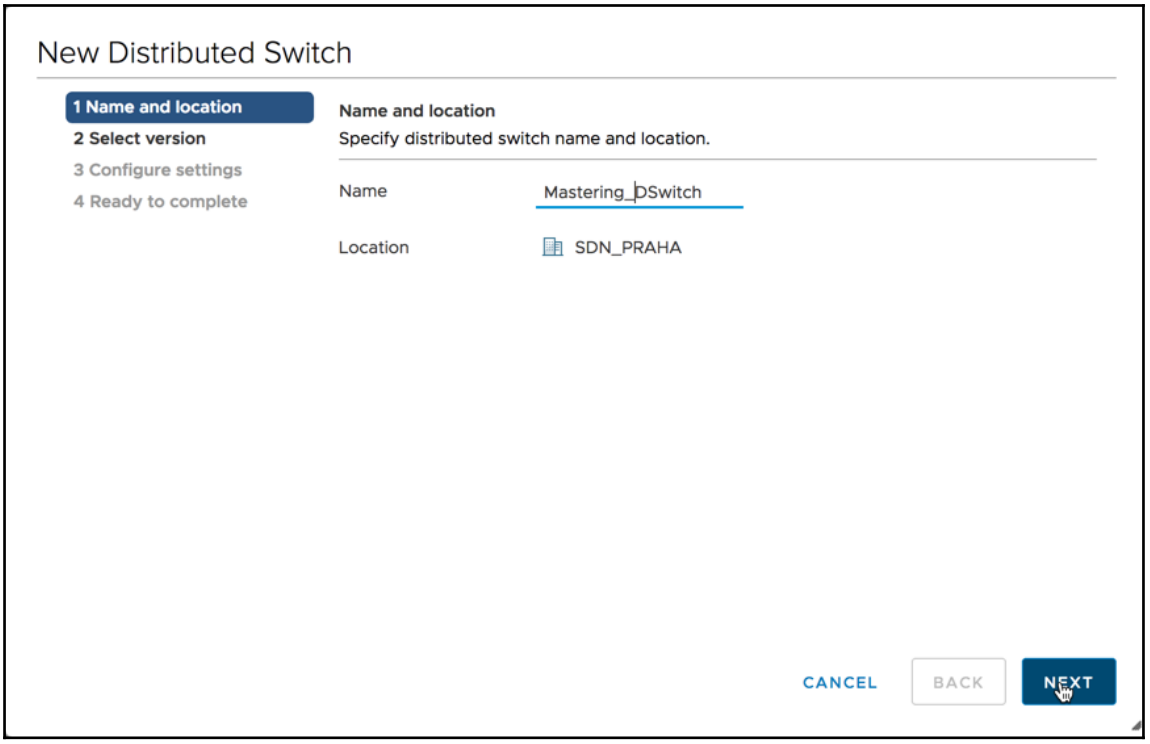

TCP/IP Stacks
Edit...
TCP/IP Stack
Type
VMkernel Adapters
IPv4 Gateway Address
IPv6 Gateway Address
Preferred DNS server
Alternate DNS server
Default
System stack
4
--
--
10.10.70.102
8.8.8.8
Provisioning
System stack
0
--
--
--
--
vMotion
System stack
0
--
--
--
--
IPstorage
Custom stack
0
--
--
--
--
vxlan
Custom stack
2
10.200.10.1
--
--
--

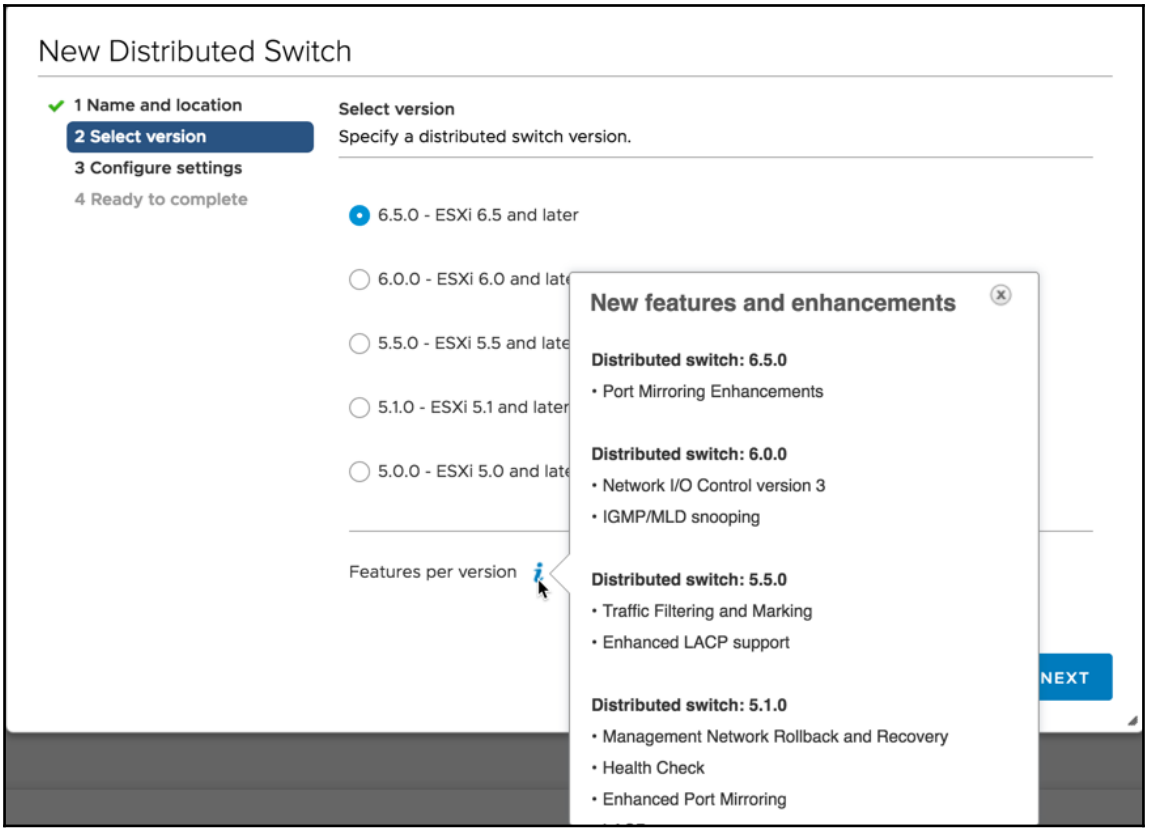

TCP/IP Stacks
Edit...
TCP/IP Stack
Type
Default
System stack
Provisioning
System stack
vMotion
System stack
Mastering_Stack
Custom stack
IPstorage
Custom stack
vxlan
Custom stack

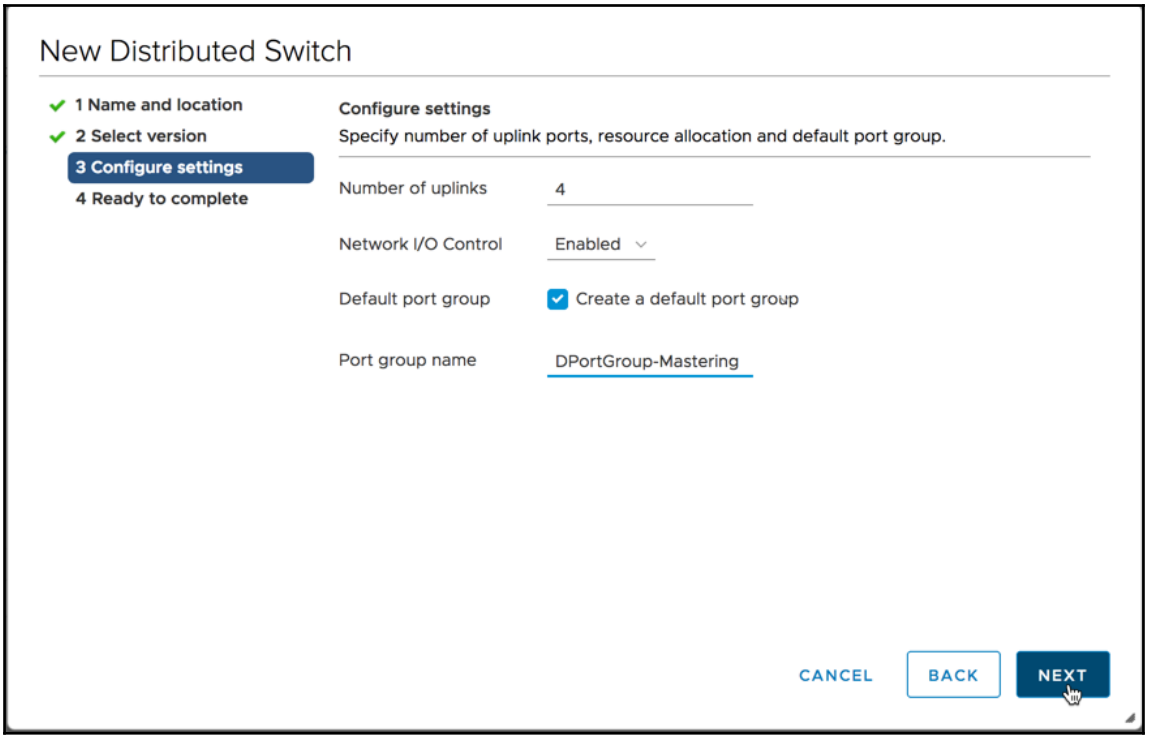


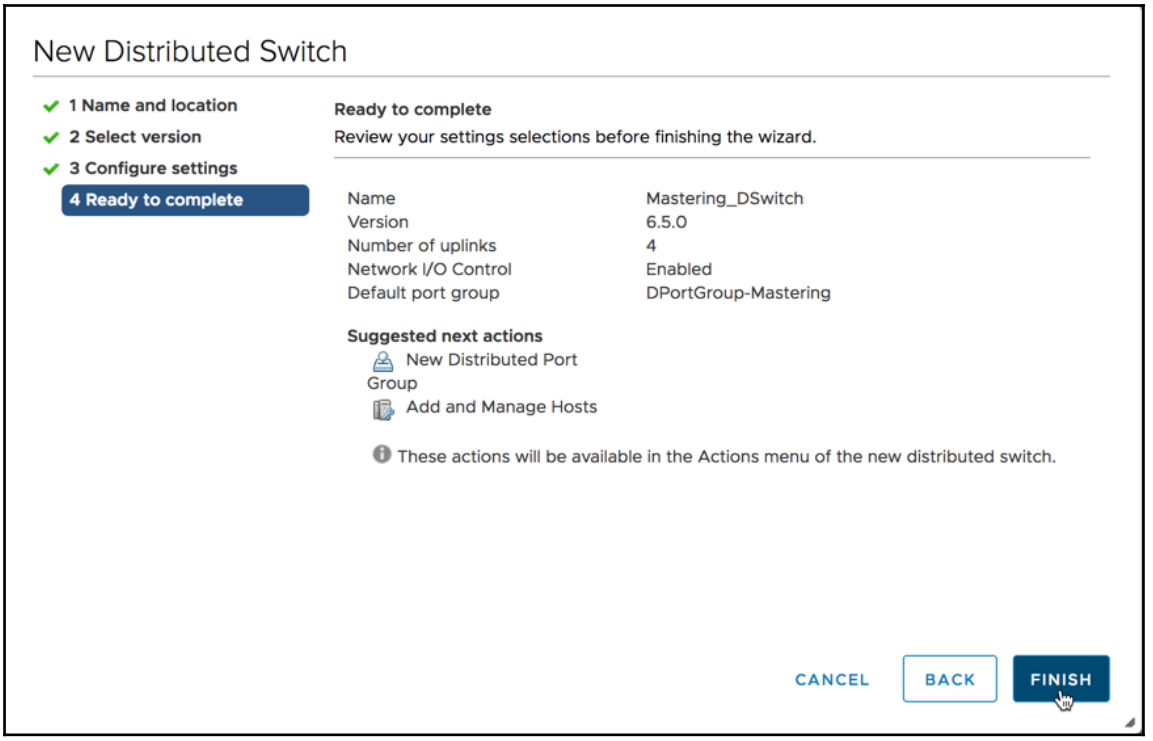
Distributed Switch	Management	• Add and manage hosts (template mode) • Edit distributed port settings • Advanced features: NIOC, port mirror (edit sessions), traffic filtering, LACP • Import and export distributed switch and distributed port group • Manage physical network adapters for distributed switch • Health check • Topology view • Upgrade distributed switch

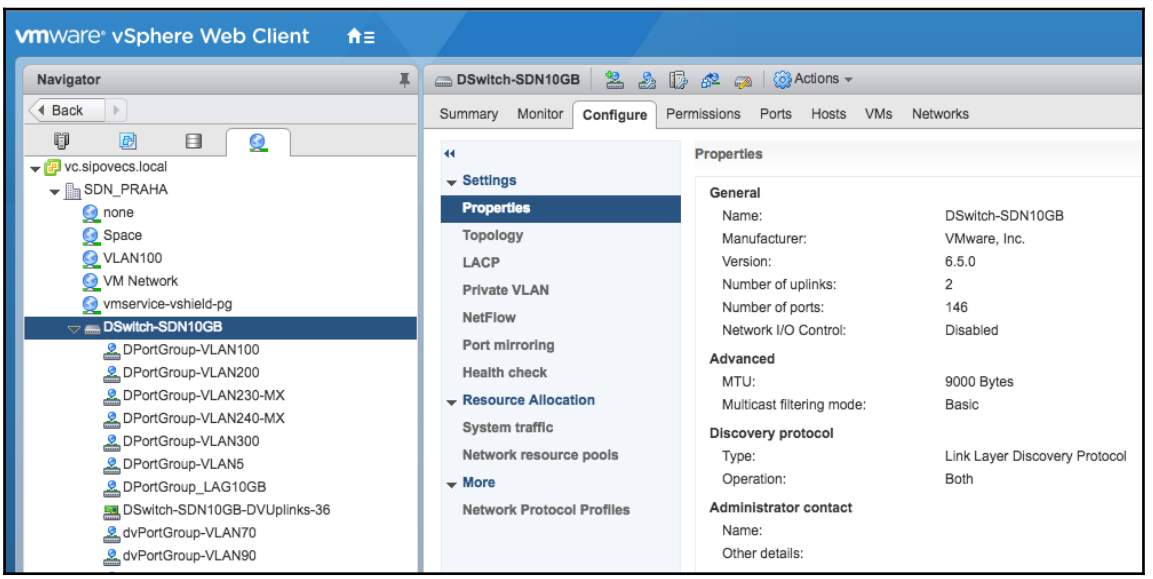

vSphere Client
Menu
Search
1
SDN_PRAHA
ACTIONS
vc.sipovecs.local
2
SDN_PRAHA
Summary
Monitor
Permissions
Actions - SDN_PRAHA
Add Host...
New Cluster...
New Folder
Distributed Switch
3
New Virtual Machine...
Storage
New Distributed Switch...
New Distributed Port Group...
Hosts: 2
Virtual Machines: 28
Clusters: 1
Networks: 21
Datastores: 3

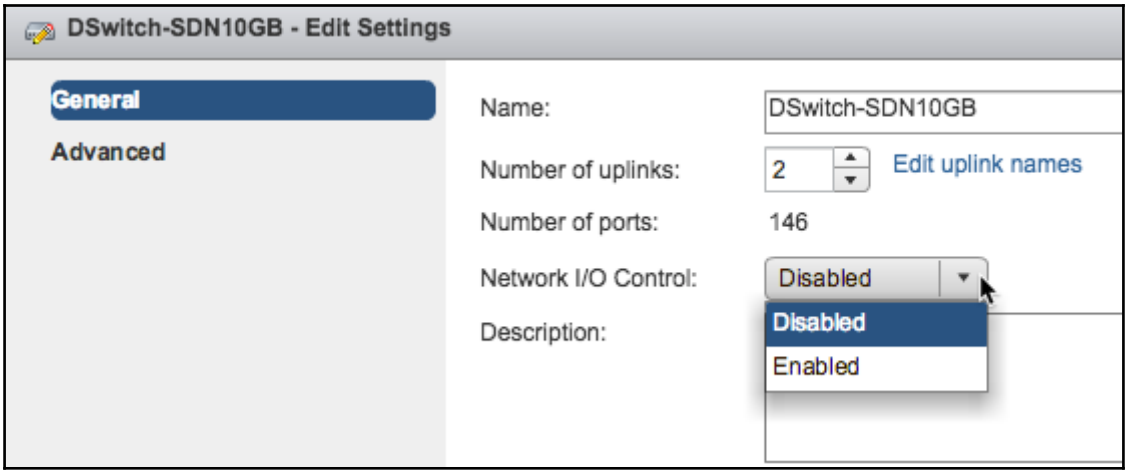

New Distributed Switch
1 Name and location
2 Select version
3 Configure settings
4 Ready to complete
Name and location
Specify distributed switch name and location.
Name
Mastering_DSwitch
Location
SDN_PRAHA
CANCEL
BACK
NEXT

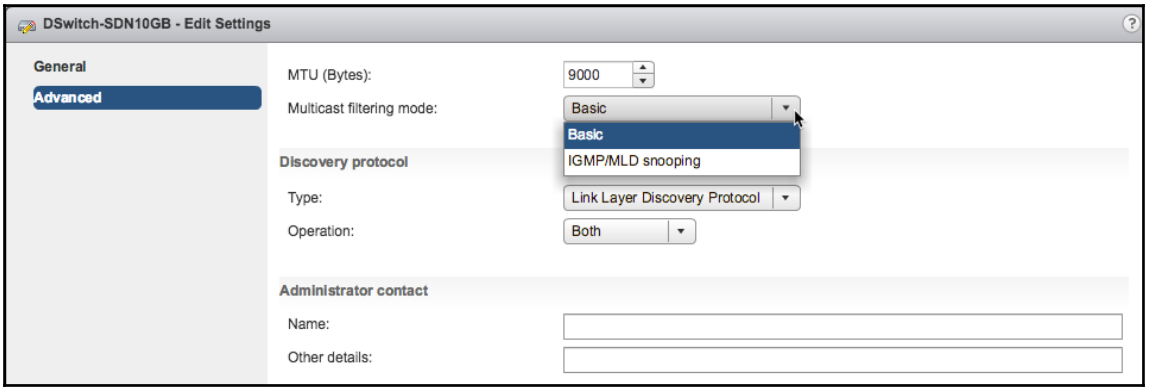

New Distributed Switch
1 Name and location
2 Select version
3 Configure settings
4 Ready to complete
Select version
Specify a distributed switch version.
6.5.0 - ESXi 6.5 and later
6.0.0 - ESXi 6.0 and late
5.5.0 - ESXi 5.5 and late
5.1.0 - ESXi 5.1 and later
5.0.0 - ESXi 5.0 and late
Features per version
New features and enhancements
Distributed switch: 6.5.0
• Port Mirroring Enhancements
Distributed switch: 6.0.0
• Network I/O Control version 3
• IGMP/MLD snooping
Distributed switch: 5.5.0
• Traffic Filtering and Marking
• Enhanced LACP support
Distributed switch: 5.1.0
• Management Network Rollback and Recovery
• Health Check
• Enhanced Port Mirroring
NEXT


New Distributed Switch
1 Name and location
2 Select version
3 Configure settings
4 Ready to complete
Configure settings
Specify number of uplink ports, resource allocation and default port group.
Number of uplinks
4
Network I/O Control
Enabled
Default port group
Create a default port group
Port group name
DPortGroup-Mastering
CANCEL
BACK
NEXT

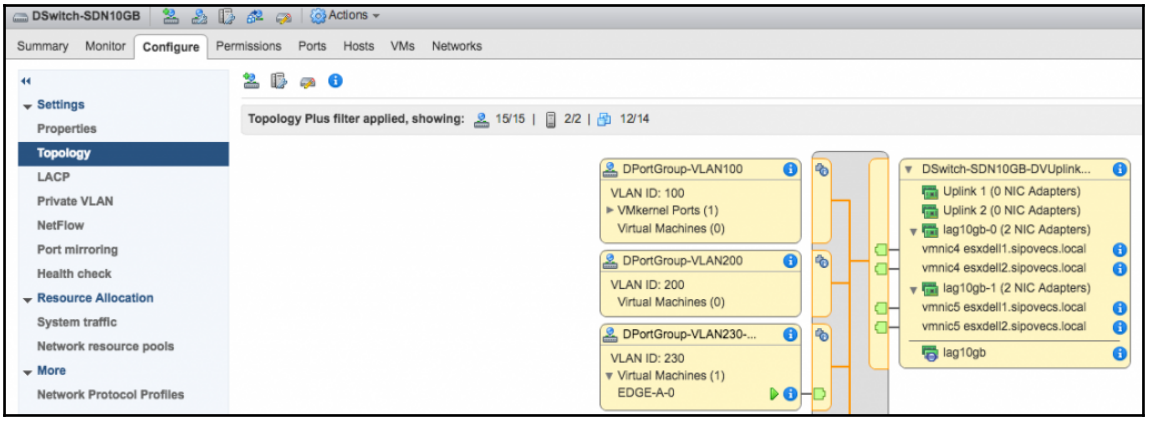

New Distributed Switch
1 Name and location
2 Select version
3 Configure settings
4 Ready to complete
Ready to complete
Review your settings selections before finishing the wizard.
Name Mastering_DSwitch
Version 6.5.0
Number of uplinks 4
Network I/O Control Enabled
Default port group DPortGroup-Mastering
Suggested next actions
New Distributed Port Group
Add and Manage Hosts
These actions will be available in the Actions menu of the new distributed switch.
CANCEL
BACK
FINISH

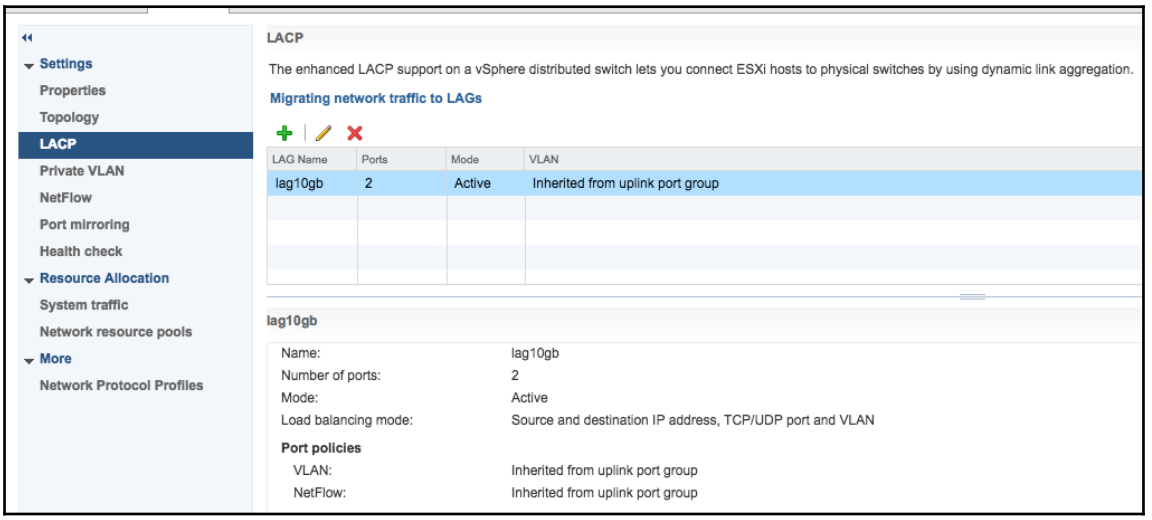

vmware vSphere Web Client
Navigator
Back
vc.sipovecs.local
SDN_PRAHA
none
Space
VLAN100
VM Network
vmservice-vshield-pg
DSwitch-SDN10GB
DPortGroup-VLAN100
DPortGroup-VLAN200
DPortGroup-VLAN230-MX
DPortGroup-VLAN240-MX
DPortGroup-VLAN300
DPortGroup-VLAN5
DPortGroup_LAG10GB
DSwitch-SDN10GB-DVUplinks-36
dvPortGroup-VLAN70
dvPortGroup-VLAN90
DSwitch-SDN10GB
Actions
Summary Monitor Configure Permissions Ports Hosts VMs Networks
Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
Properties
General
Name: DSwitch-SDN10GB
Manufacturer: VMware, Inc.
Version: 6.5.0
Number of uplinks: 2
Number of ports: 146
Network I/O Control: Disabled
Advanced
MTU: 9000 Bytes
Multicast filtering mode: Basic
Discovery protocol
Type: Link Layer Discovery Protocol
Operation: Both
Administrator contact
Name:
Other details:


DSwitch-SDN10GB - Edit Settings
General
Advanced
Name:
DSwitch-SDN10GB
Number of uplinks:
2
Edit uplink names
Number of ports:
146
Network I/O Control:
Disabled
Description:
Disabled
Enabled

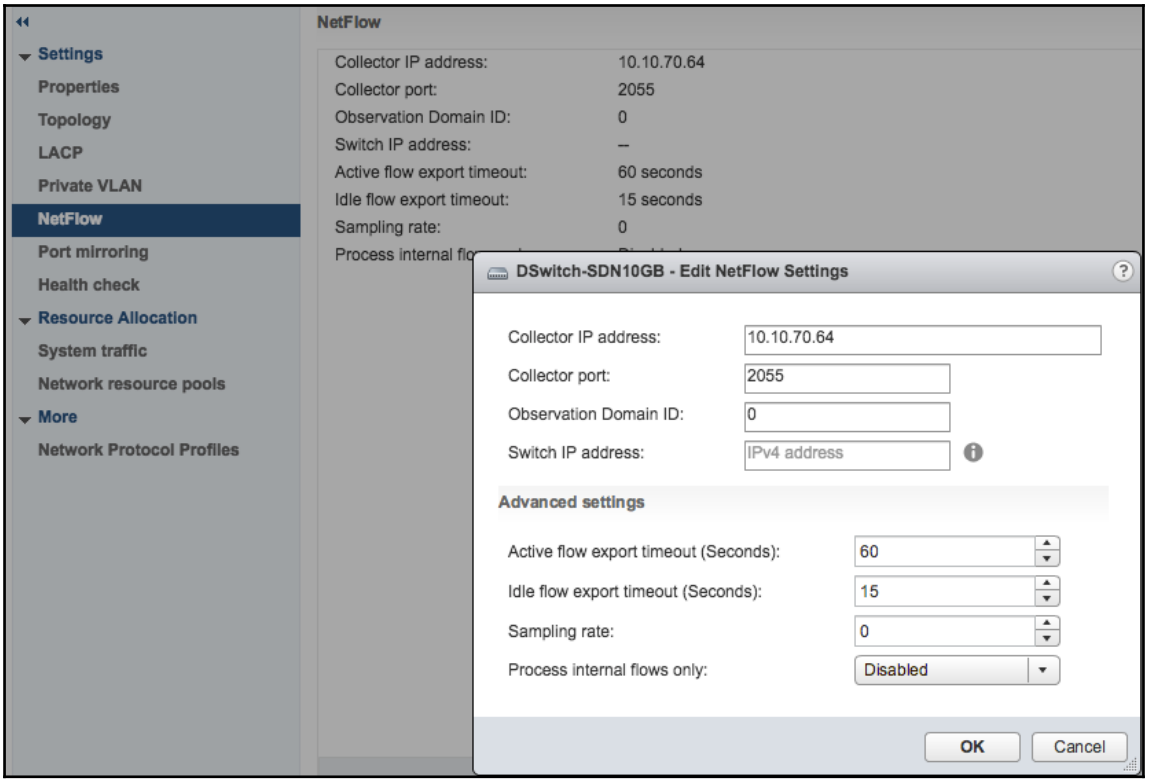

DSwitch-SDN10GB - Edit Settings
General
Advanced
MTU (Bytes):
9000
Multicast filtering mode:
Basic
Basic
IGMP/MLD snooping
Discovery protocol
Type:
Link Layer Discovery Protocol
Operation:
Both
Administrator contact
Name:
Other details:

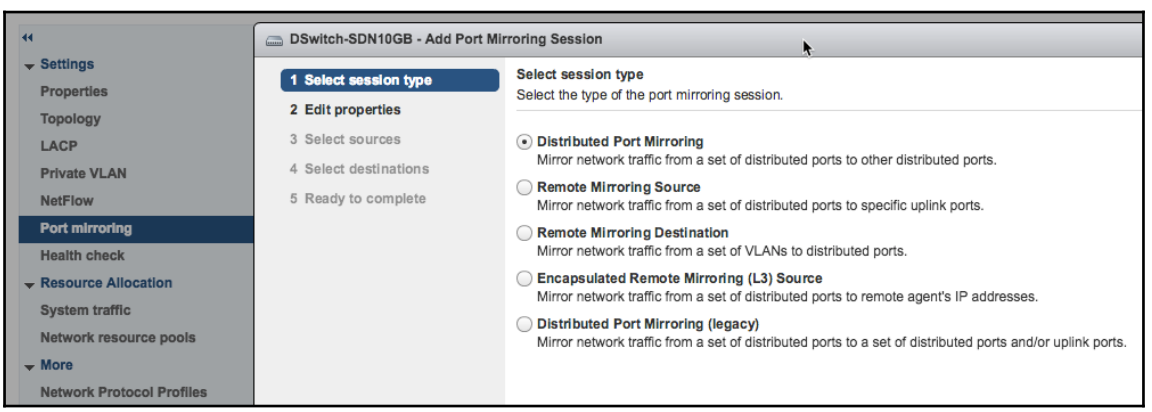

Discovery protocol
Type:
Link Layer Discovery Protocol
Operation:
(disabled)
Cisco Discovery Protocol
Link Layer Discovery Protocol
Administrator contact

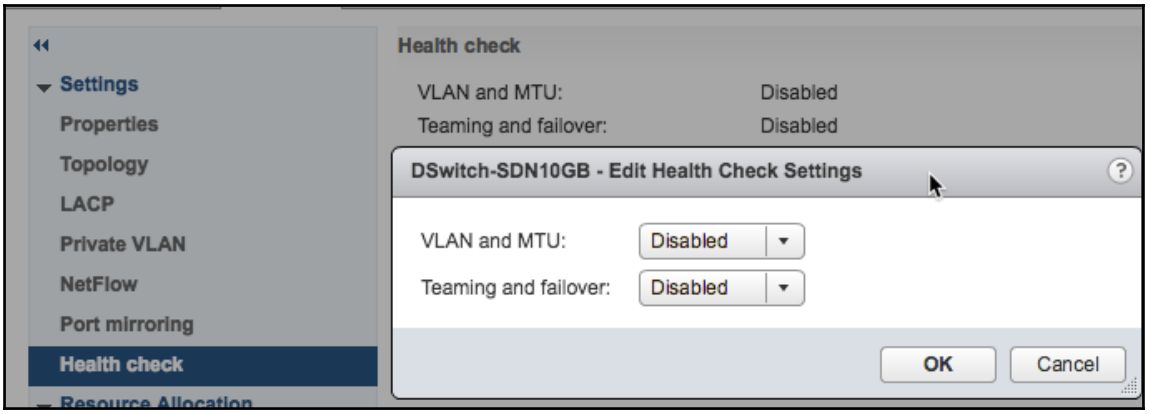

DSwitch-SDN10GB
Actions
Summary
Monitor
Configure
Permissions
Ports
Hosts
VMs
Networks
Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
Topology Plus filter applied, showing: 15/15 | 2/2 | 12/14
DPortGroup-VLAN100
VLAN ID: 100
VMkernel Ports (1)
Virtual Machines (0)
DPortGroup-VLAN200
VLAN ID: 200
Virtual Machines (0)
DPortGroup-VLAN230-...
VLAN ID: 230
Virtual Machines (1)
EDGE-A-0
DSwitch-SDN10GB-DVUplink...
Uplink 1 (0 NIC Adapters)
Uplink 2 (0 NIC Adapters)
lag10gb-0 (2 NIC Adapters)
vmnic4 esxdell1.sipovecs.local
vmnic4 esxdell2.sipovecs.local
lag10gb-1 (2 NIC Adapters)
vmnic5 esxdell1.sipovecs.local
vmnic5 esxdell2.sipovecs.local
lag10gb

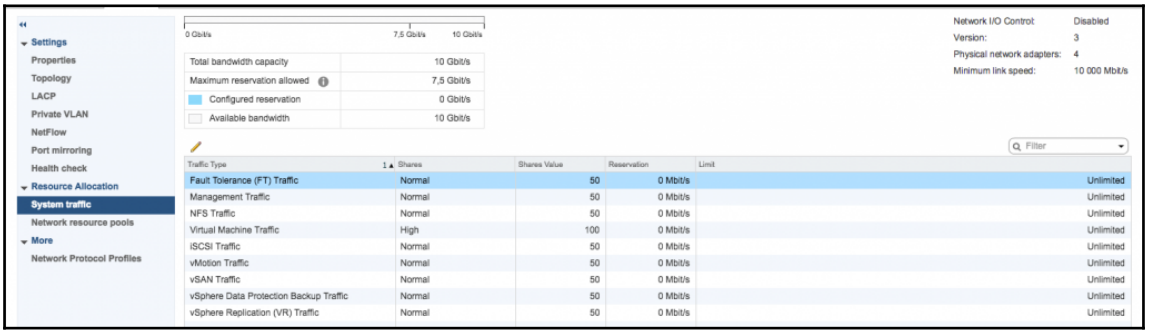

Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
LACP
The enhanced LACP support on a vSphere distributed switch lets you connect ESXi hosts to physical switches by using dynamic link aggregation.
Migrating network traffic to LAGs
LAG Name
Ports
Mode
VLAN
lag10gb
2
Active
Inherited from uplink port group
lag10gb
Name: lag10gb
Number of ports: 2
Mode: Active
Load balancing mode: Source and destination IP address, TCP/UDP port and VLAN
Port policies
VLAN: Inherited from uplink port group
NetFlow: Inherited from uplink port group


Settings
Properties
Topology
LACP
Private VLAN
Private VLAN
Primary VLAN ID


Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
NetFlow
Collector IP address: 10.10.70.64
Collector port: 2055
Observation Domain ID: 0
Switch IP address: --
Active flow export timeout: 60 seconds
Idle flow export timeout: 15 seconds
Sampling rate: 0
DSwitch-SDN10GB - Edit NetFlow Settings
Collector IP address: 10.10.70.64
Collector port: 2055
Observation Domain ID: 0
Switch IP address: IPv4 address
Advanced settings
Active flow export timeout (Seconds): 60
Idle flow export timeout (Seconds): 15
Sampling rate: 0
Process internal flows only: Disabled
OK
Cancel

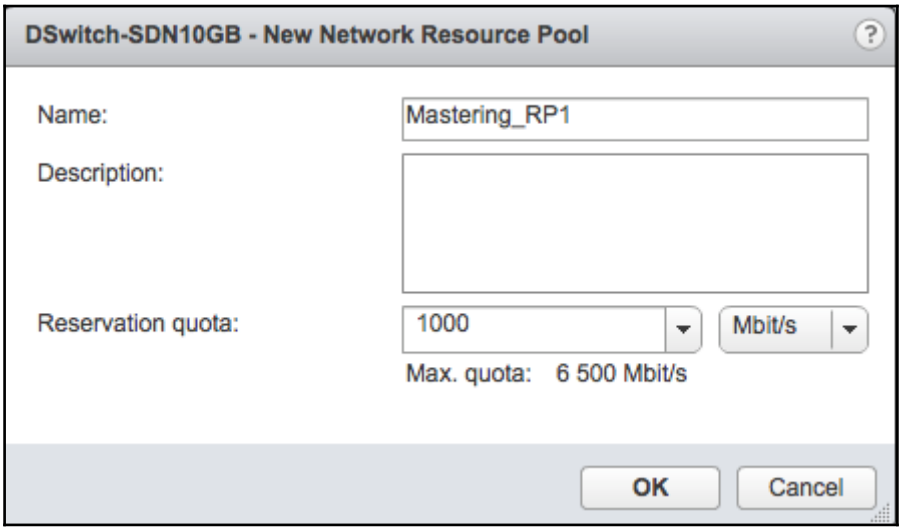

Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
DSwitch-SDN10GB - Add Port Mirroring Session
1 Select session type
2 Edit properties
3 Select sources
4 Select destinations
5 Ready to complete
Select session type
Select the type of the port mirroring session.
Distributed Port Mirroring
Mirror network traffic from a set of distributed ports to other distributed ports.
Remote Mirroring Source
Mirror network traffic from a set of distributed ports to specific uplink ports.
Remote Mirroring Destination
Mirror network traffic from a set of VLANs to distributed ports.
Encapsulated Remote Mirroring (L3) Source
Mirror network traffic from a set of distributed ports to remote agent's IP addresses.
Distributed Port Mirroring (legacy)
Mirror network traffic from a set of distributed ports to a set of distributed ports and/or uplink ports.

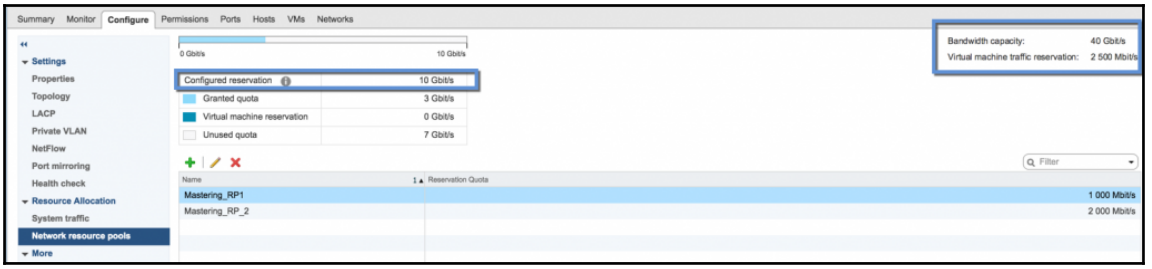

Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
Health check
VLAN and MTU: Disabled
Teaming and failover: Disabled
DSwitch-SDN10GB - Edit Health Check Settings
VLAN and MTU: Disabled
Teaming and failover: Disabled
OK
Cancel

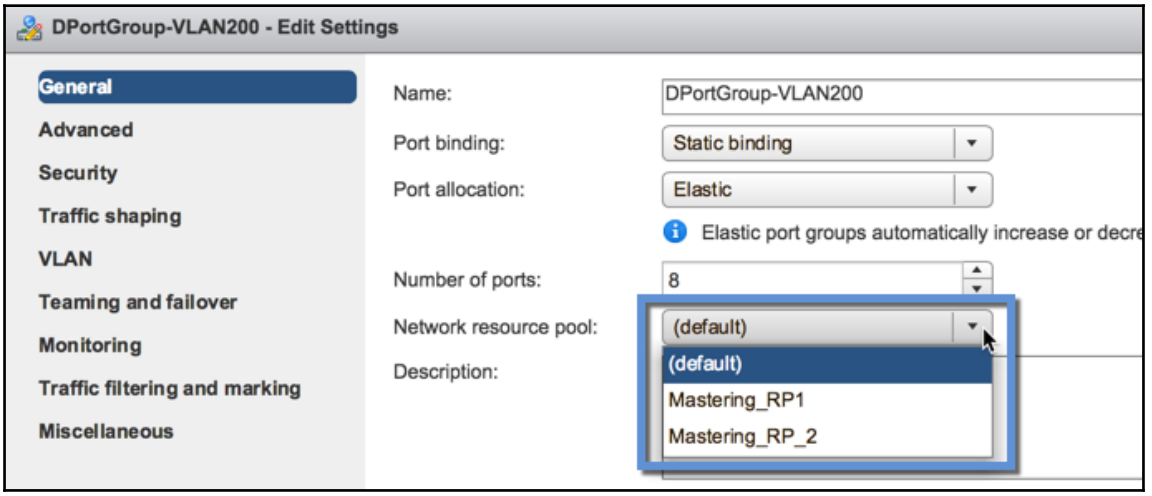

Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
0 Gbit/s
7,5 Gbit/s
10 Gbit/s
Total bandwidth capacity 10 Gbit/s
Maximum reservation allowed 7,5 Gbit/s
Configured reservation 0 Gbit/s
Available bandwidth 10 Gbit/s
Network I/O Control: Disabled
Version: 3
Physical network adapters: 4
Minimum link speed: 10 000 Mbit/s
Filter
Traffic Type | Shares | Shares Value | Reservation | Limit
Fault Tolerance (FT) Traffic Normal 50 0 Mbit/s Unlimited
Management Traffic Normal 50 0 Mbit/s Unlimited
NFS Traffic Normal 50 0 Mbit/s Unlimited
Virtual Machine Traffic High 100 0 Mbit/s Unlimited
iSCSI Traffic Normal 50 0 Mbit/s Unlimited
vMotion Traffic Normal 50 0 Mbit/s Unlimited
vSAN Traffic Normal 50 0 Mbit/s Unlimited
vSphere Data Protection Backup Traffic Normal 50 0 Mbit/s Unlimited
vSphere Replication (VR) Traffic Normal 50 0 Mbit/s Unlimited

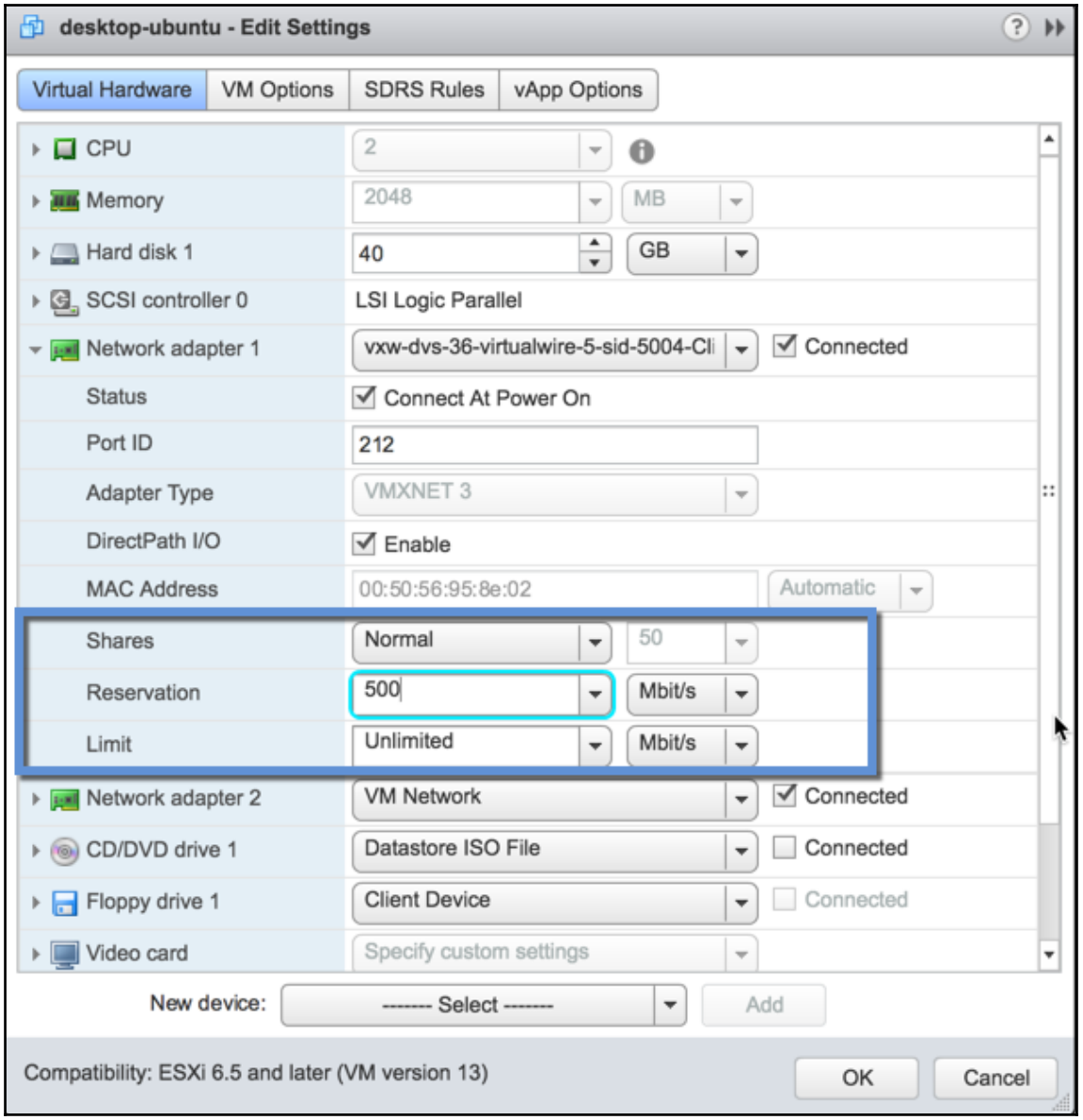
Total bandwidth capacity	10 Gbit/s
Maximum reservation allowed	7,5 Gbit/s
Configured reservation	7,5 Gbit/s
Available bandwidth	2,5 Gbit/s

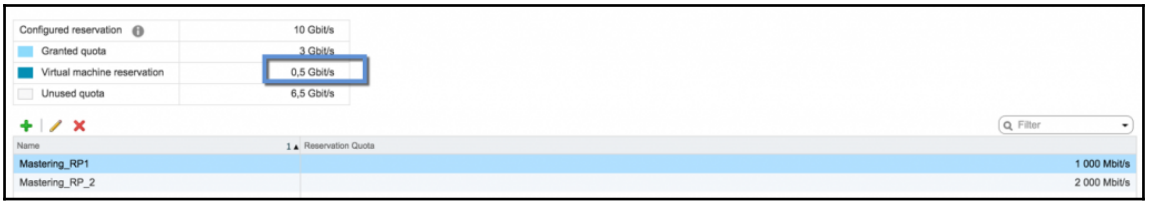
Traffic Type	1 ▲	Shares	Shares Value	Reservation	Limit
Fault Tolerance (FT) Traffic		Normal	50	1 000 Mbit/s	
Management Traffic		Normal	50	1 000 Mbit/s	
NFS Traffic		Normal	50	1 000 Mbit/s	
Virtual Machine Traffic		High	100	2 500 Mbit/s	
iSCSI Traffic		Normal	50	1 000 Mbit/s	
vMotion Traffic		Normal	50	1 000 Mbit/s	
vSAN Traffic		Normal	50	0 Mbit/s	
vSphere Data Protection Backup Traffic		Normal	50	0 Mbit/s	
vSphere Replication (VR) Traffic		Normal	50	0 Mbit/s	

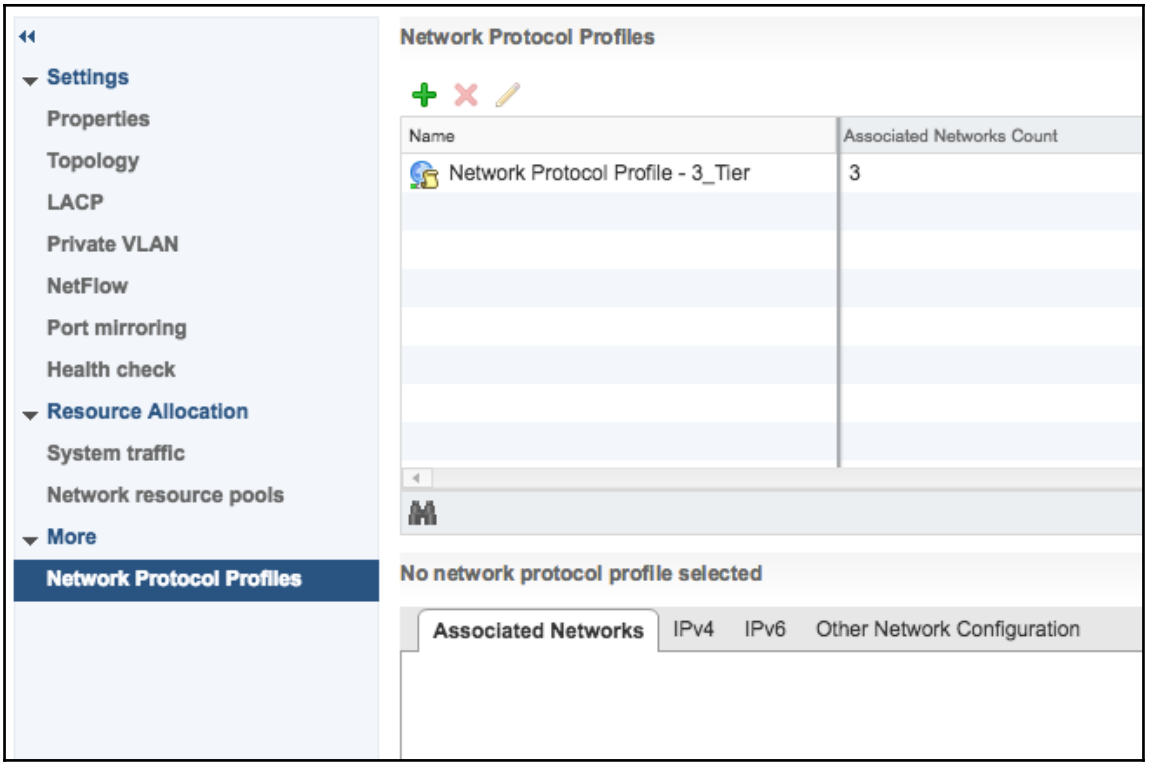


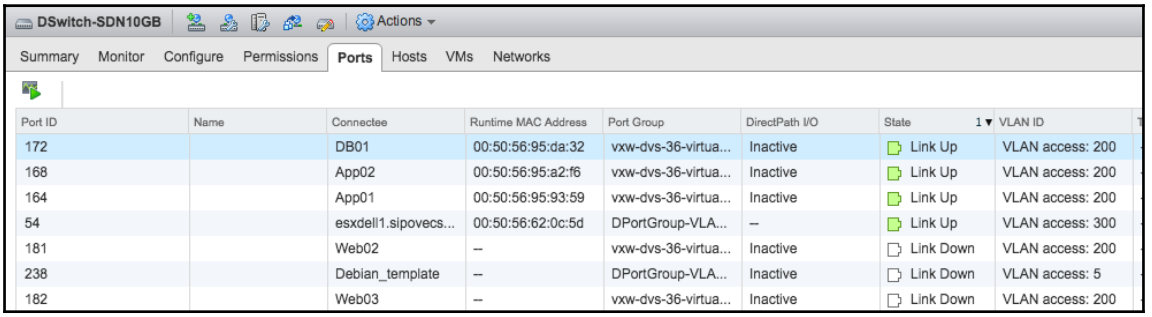

Summary
Monitor
Configure
Permissions
Ports
Hosts
VMs
Networks
Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
0 Gbit/s
10 Gbit/s
Configured reservation
10 Gbit/s
Granted quota
3 Gbit/s
Virtual machine reservation
0 Gbit/s
Unused quota
7 Gbit/s
Bandwidth capacity:
40 Gbit/s
Virtual machine traffic reservation:
2 500 Mbit/s
Filter
Name
Reservation Quota
Mastering_RP1
1 000 Mbit/s
Mastering_RP_2
2 000 Mbit/s

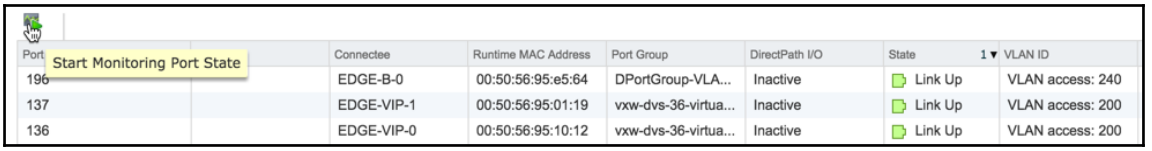

DPortGroup-VLAN200 - Edit Settings
General
Advanced
Security
Traffic shaping
VLAN
Teaming and failover
Monitoring
Traffic filtering and marking
Miscellaneous
Name:
DPortGroup-VLAN200
Port binding:
Static binding
Port allocation:
Elastic
Elastic port groups automatically increase or decre
Number of ports:
8
Network resource pool:
(default)
Description:
(default)
Mastering_RP1
Mastering_RP_2


desktop-ubuntu - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
2
Memory
2048
MB
Hard disk 1
40
GB
SCSI controller 0
LSI Logic Parallel
Network adapter 1
vxw-dvs-36-virtualwire-5-sid-5004-Cli
Connected
Status
Connect At Power On
Port ID
212
Adapter Type
VMXNET 3
DirectPath I/O
Enable
MAC Address
00:50:56:95:8e:02
Automatic
Shares
Normal
50
Reservation
500
Mbit/s
Limit
Unlimited
Mbit/s
Network adapter 2
VM Network
Connected
CD/DVD drive 1
Datastore ISO File
Connected
Floppy drive 1
Client Device
Connected
Video card
Specify custom settings
New device:
------- Select -------
Add
Compatibility: ESXi 6.5 and later (VM version 13)
OK
Cancel

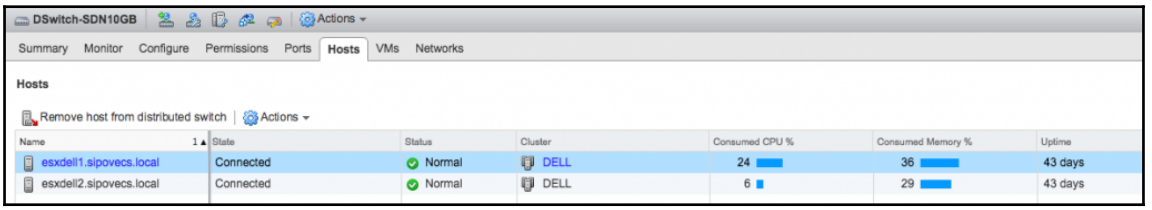

Configured reservation
10 Gbit/s
Granted quota
3 Gbit/s
Virtual machine reservation
0,5 Gbit/s
Unused quota
6,5 Gbit/s
Filter
Name
Reservation Quota
Mastering_RP1
1 000 Mbit/s
Mastering_RP_2
2 000 Mbit/s


Settings
Properties
Topology
LACP
Private VLAN
NetFlow
Port mirroring
Health check
Resource Allocation
System traffic
Network resource pools
More
Network Protocol Profiles
Network Protocol Profiles
Name
Associated Networks Count
Network Protocol Profile - 3_Tier
3
No network protocol profile selected
Associated Networks
IPv4
IPv6
Other Network Configuration

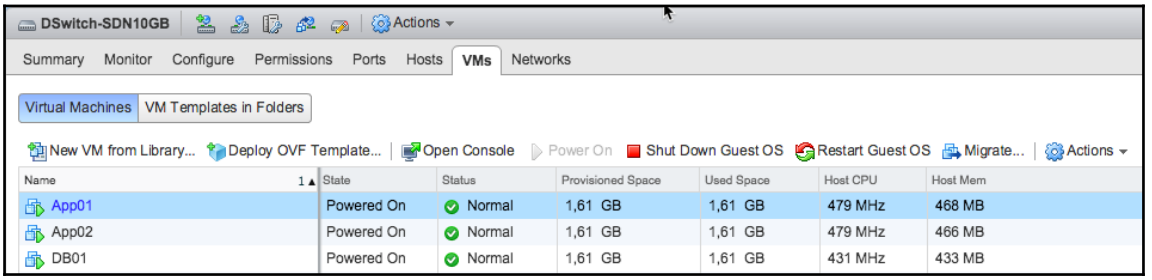

DSwitch-SDN10GB
Actions
Summary
Monitor
Configure
Permissions
Ports
Hosts
VMs
Networks
Port ID
Name
Connectee
Runtime MAC Address
Port Group
DirectPath I/O
State
VLAN ID
172
DB01
00:50:56:95:da:32
vxw-dvs-36-virtua...
Inactive
Link Up
VLAN access: 200
168
App02
00:50:56:95:a2:f6
vxw-dvs-36-virtua...
Inactive
Link Up
VLAN access: 200
164
App01
00:50:56:95:93:59
vxw-dvs-36-virtua...
Inactive
Link Up
VLAN access: 200
54
esxdell1.sipovecs...
00:50:56:62:0c:5d
DPortGroup-VLA...
--
Link Up
VLAN access: 300
181
Web02
--
vxw-dvs-36-virtua...
Inactive
Link Down
VLAN access: 200
238
Debian_template
--
DPortGroup-VLA...
Inactive
Link Down
VLAN access: 5
182
Web03
--
vxw-dvs-36-virtua...
Inactive
Link Down
VLAN access: 200



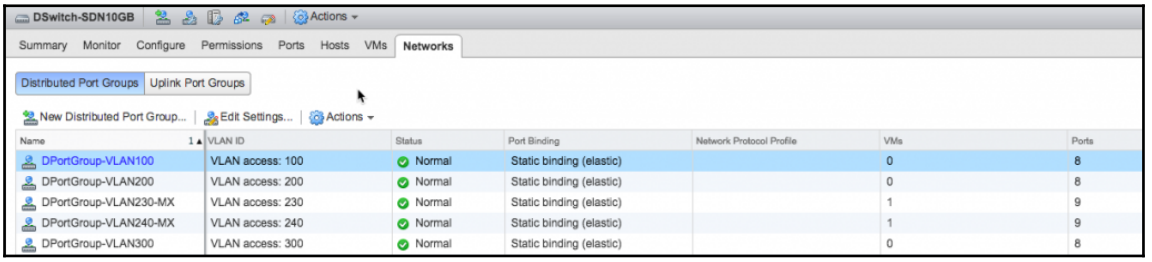
Port	Connectee	Runtime MAC Address	Port Group	DirectPath I/O	State	VLAN ID
196	EDGE-B-0	00:50:56:95:e5:64	DPortGroup-VLA...	Inactive	Link Up	VLAN access: 240
137	EDGE-VIP-1	00:50:56:95:01:19	vxw-dvs-36-virtua...	Inactive	Link Up	VLAN access: 200
136	EDGE-VIP-0	00:50:56:95:10:12	vxw-dvs-36-virtua...	Inactive	Link Up	VLAN access: 200



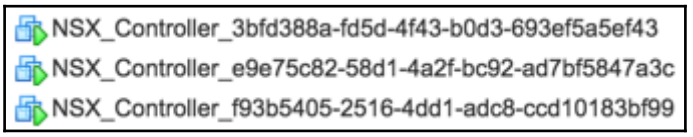
Name	State	Status	Cluster	Consumed CPU %	Consumed Memory %	Uptime
esxdell1.sipovecs.local	Connected	Normal	DELL	24	36	43 days
esxdell2.sipovecs.local	Connected	Normal	DELL	6	29	43 days

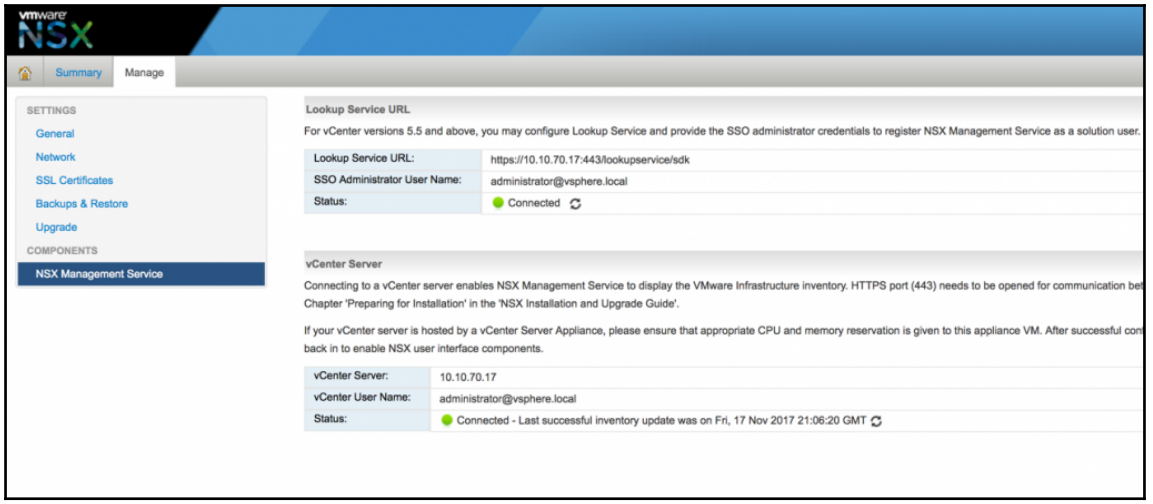


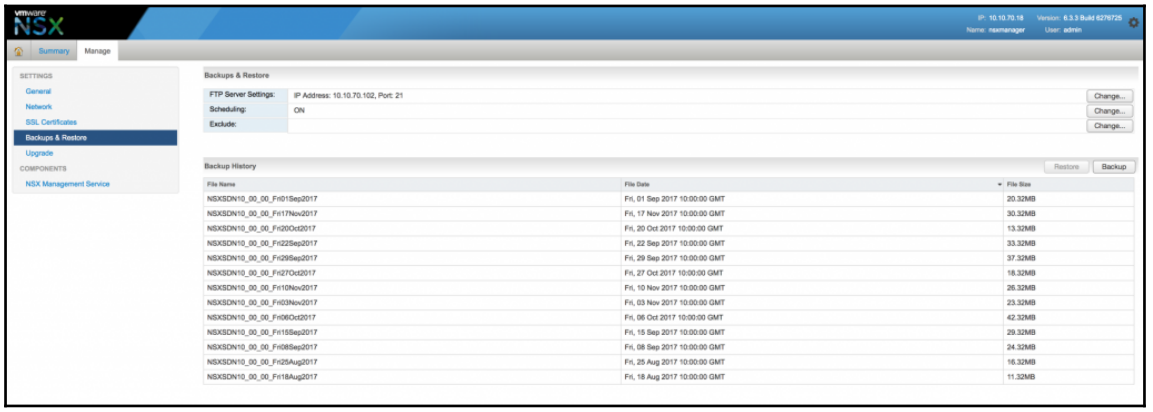
Name	State	Status	Provisioned Space	Used Space	Host CPU	Host Mem
App01	Powered On	Normal	1,61 GB	1,61 GB	479 MHz	468 MB
App02	Powered On	Normal	1,61 GB	1,61 GB	479 MHz	466 MB
DB01	Powered On	Normal	1,61 GB	1,61 GB	431 MHz	433 MB



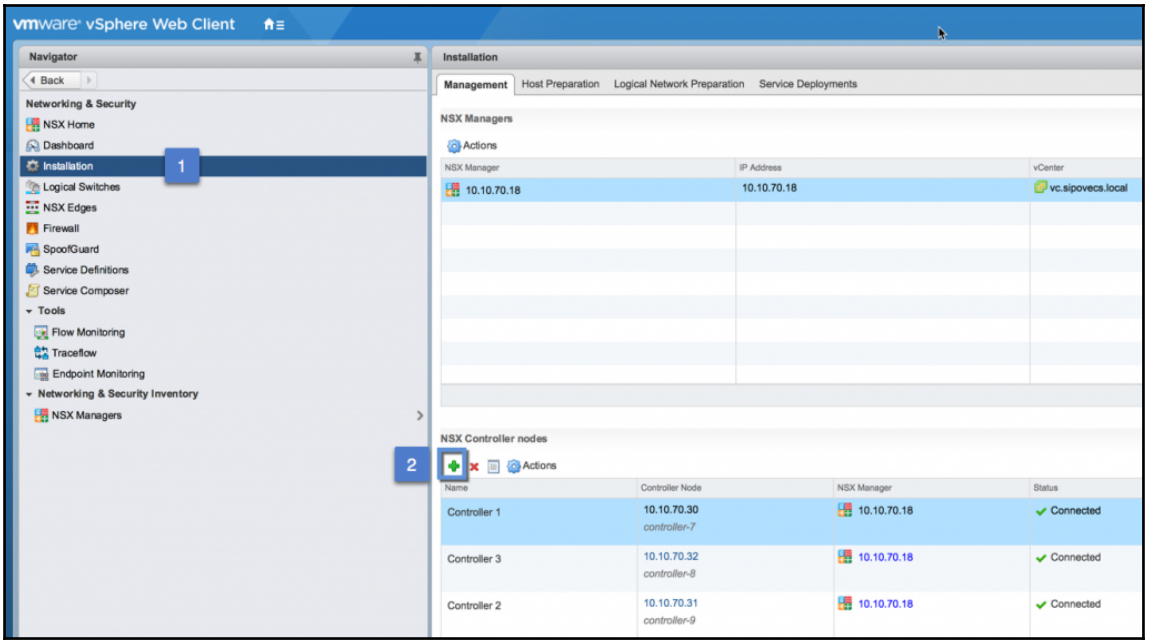
Name	VLAN ID	Status	Port Binding	Network Protocol Profile	VMs	Ports
DPortGroup-VLAN100	VLAN access: 100	Normal	Static binding (elastic)		0	8
DPortGroup-VLAN200	VLAN access: 200	Normal	Static binding (elastic)		0	8
DPortGroup-VLAN230-MX	VLAN access: 230	Normal	Static binding (elastic)		1	9
DPortGroup-VLAN240-MX	VLAN access: 240	Normal	Static binding (elastic)		1	9
DPortGroup-VLAN300	VLAN access: 300	Normal	Static binding (elastic)		0	8

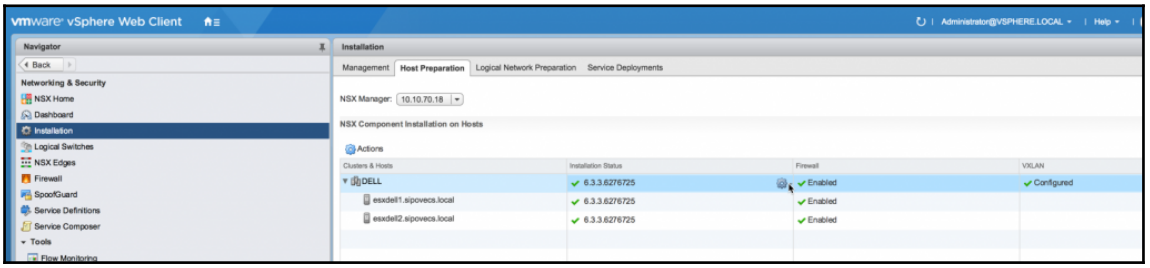


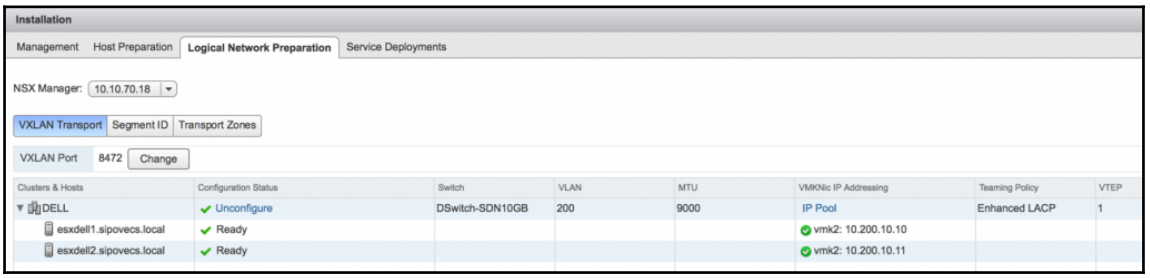

vmware NSX
Summary
Manage
SETTINGS
General
Network
SSL Certificates
Backups & Restore
Upgrade
COMPONENTS
NSX Management Service
Lookup Service URL
For vCenter versions 5.5 and above, you may configure Lookup Service and provide the SSO administrator credentials to register NSX Management Service as a solution user.
Lookup Service URL: https://10.10.70.17:443/lookupservice/sdk
SSO Administrator User Name: administrator@vsphere.local
Status: Connected
vCenter Server
Connecting to a vCenter server enables NSX Management Service to display the VMware Infrastructure inventory. HTTPS port (443) needs to be opened for communication bet
Chapter 'Preparing for Installation' in the 'NSX Installation and Upgrade Guide'.
If your vCenter server is hosted by a vCenter Server Appliance, please ensure that appropriate CPU and memory reservation is given to this appliance VM. After successful con
back in to enable NSX user interface components.
vCenter Server: 10.10.70.17
vCenter User Name: administrator@vsphere.local
Status: Connected - Last successful inventory update was on Fri, 17 Nov 2017 21:06:20 GMT

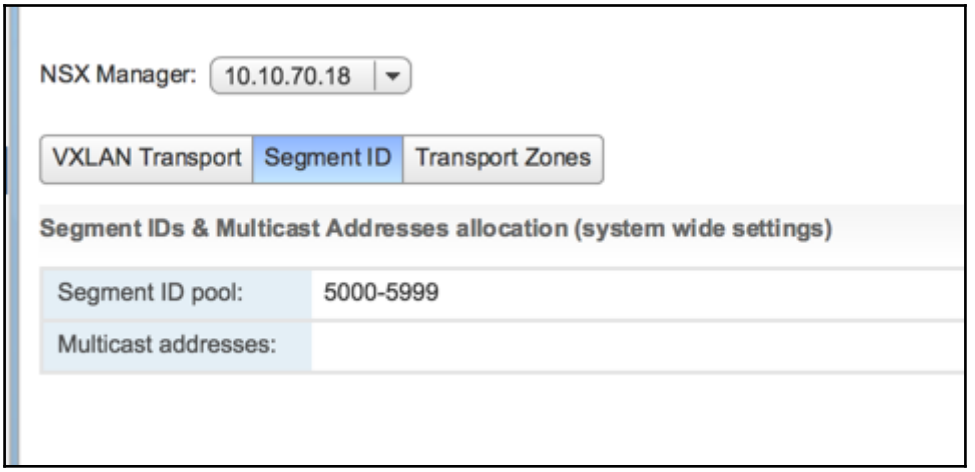

vmware NSX
Summary
Manage
SETTINGS
General
Network
SSL Certificates
Backups & Restore
Upgrade
COMPONENTS
NSX Management Service
Backups & Restore
FTP Server Settings: IP Address: 10.10.70.102, Port: 21
Scheduling: ON
Exclude:
Change...
Backup History
Restore
Backup
File Name
File Date
File Size
NSXSDN10_00_00_Fri01Sep2017 Fri, 01 Sep 2017 10:00:00 GMT 20.32MB
NSXSDN10_00_00_Fri17Nov2017 Fri, 17 Nov 2017 10:00:00 GMT 30.32MB
NSXSDN10_00_00_Fri20Oct2017 Fri, 20 Oct 2017 10:00:00 GMT 13.32MB
NSXSDN10_00_00_Fri22Sep2017 Fri, 22 Sep 2017 10:00:00 GMT 33.32MB
NSXSDN10_00_00_Fri29Sep2017 Fri, 29 Sep 2017 10:00:00 GMT 37.32MB
NSXSDN10_00_00_Fri27Oct2017 Fri, 27 Oct 2017 10:00:00 GMT 18.32MB
NSXSDN10_00_00_Fri10Nov2017 Fri, 10 Nov 2017 10:00:00 GMT 26.32MB
NSXSDN10_00_00_Fri03Nov2017 Fri, 03 Nov 2017 10:00:00 GMT 23.32MB
NSXSDN10_00_00_Fri06Oct2017 Fri, 06 Oct 2017 10:00:00 GMT 42.32MB
NSXSDN10_00_00_Fri15Sep2017 Fri, 15 Sep 2017 10:00:00 GMT 29.32MB
NSXSDN10_00_00_Fri08Sep2017 Fri, 08 Sep 2017 10:00:00 GMT 24.32MB
NSXSDN10_00_00_Fri25Aug2017 Fri, 25 Aug 2017 10:00:00 GMT 16.32MB
NSXSDN10_00_00_Fri18Aug2017 Fri, 18 Aug 2017 10:00:00 GMT 11.32MB

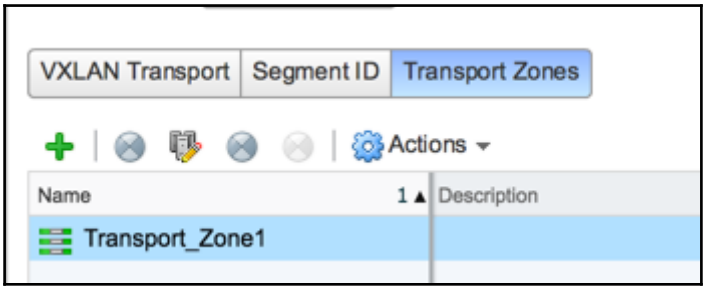

Networking & Security
Networking & Security

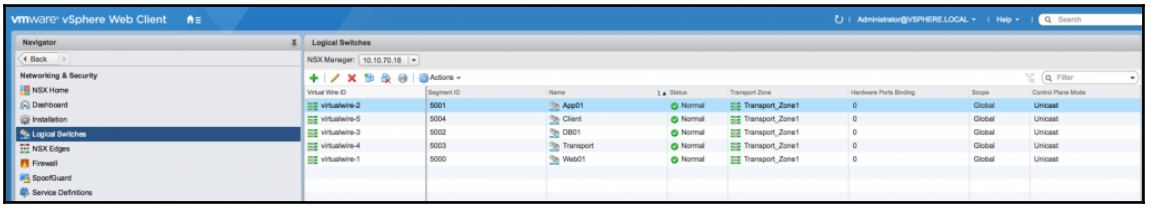

vmware vSphere Web Client
Navigator
Back
Networking & Security
NSX Home
Dashboard
Installation
Logical Switches
NSX Edges
Firewall
SpoofGuard
Service Definitions
Service Composer
Tools
Flow Monitoring
Traceflow
Endpoint Monitoring
Networking & Security Inventory
NSX Managers
1
2
Installation
Management
Host Preparation
Logical Network Preparation
Service Deployments
NSX Managers
Actions
NSX Manager
IP Address
vCenter
10.10.70.18
10.10.70.18
vc.sipovecs.local
NSX Controller nodes
Actions
Name
Controller Node
NSX Manager
Status
Controller 1
10.10.70.30
controller-7
10.10.70.18
Connected
Controller 3
10.10.70.32
controller-8
10.10.70.18
Connected
Controller 2
10.10.70.31
controller-9
10.10.70.18
Connected

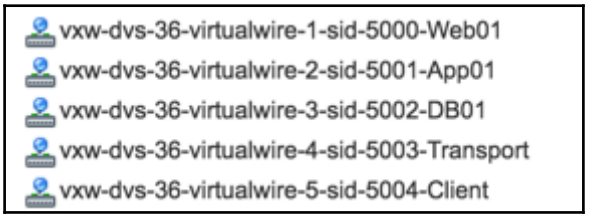

vmware vSphere Web Client
Administrator@VSPHERE.LOCAL
Help
Navigator
Installation
Management
Host Preparation
Logical Network Preparation
Service Deployments
NSX Manager:
10.10.70.18
NSX Component Installation on Hosts
Actions
Clusters & Hosts
Installation Status
Firewall
VXLAN
DELL
6.3.3.6276725
Enabled
Configured
esxdell1.sipovecs.local
6.3.3.6276725
Enabled
esxdell2.sipovecs.local
6.3.3.6276725
Enabled

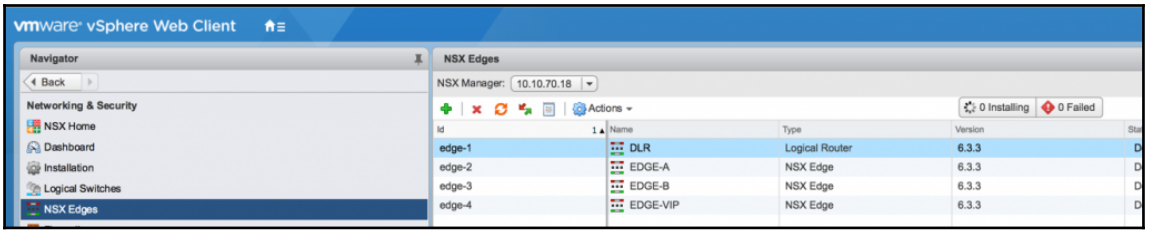

Installation
Management
Host Preparation
Logical Network Preparation
Service Deployments
NSX Manager:
10.10.70.18
VXLAN Transport
Segment ID
Transport Zones
VXLAN Port
8472
Change
Clusters & Hosts
Configuration Status
Switch
VLAN
MTU
VMKNic IP Addressing
Teaming Policy
VTEP
DELL
Unconfigure
DSwitch-SDN10GB
200
9000
IP Pool
Enhanced LACP
1
esxdell1.sipovecs.local
Ready
vmk2: 10.200.10.10
esxdell2.sipovecs.local
Ready
vmk2: 10.200.10.11

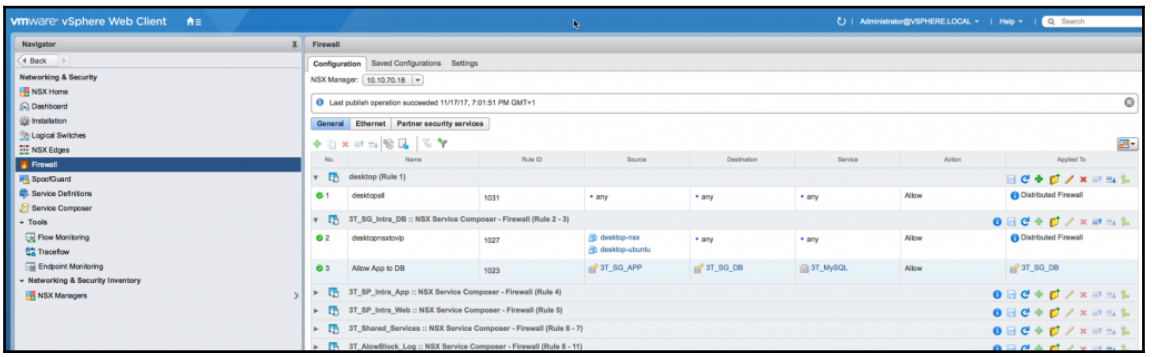

NSX Manager: 10.10.70.18
VXLAN Transport
Segment ID
Transport Zones
Segment IDs & Multicast Addresses allocation (system wide settings)
Segment ID pool:
5000-5999
Multicast addresses:


VXLAN Transport
Segment ID
Transport Zones
Actions
Name
1
Description
Transport_Zone1

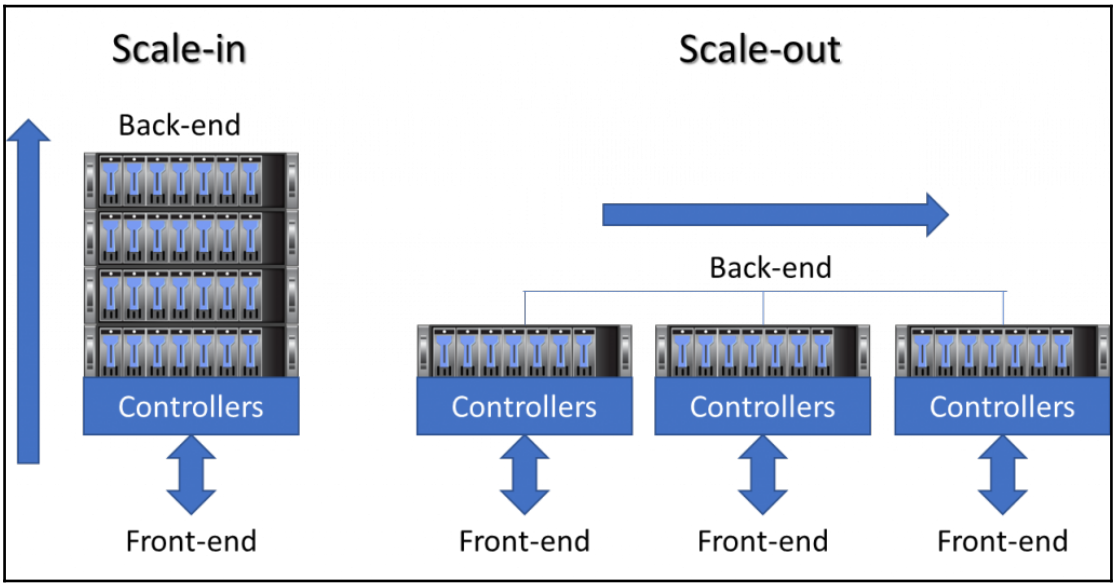

vmware vSphere Web Client
Navigator
Logical Switches
Networking & Security
NSX Home
Dashboard
Installation
Logical Switches
NSX Edges
Firewall
SpoofGuard
Service Definitions

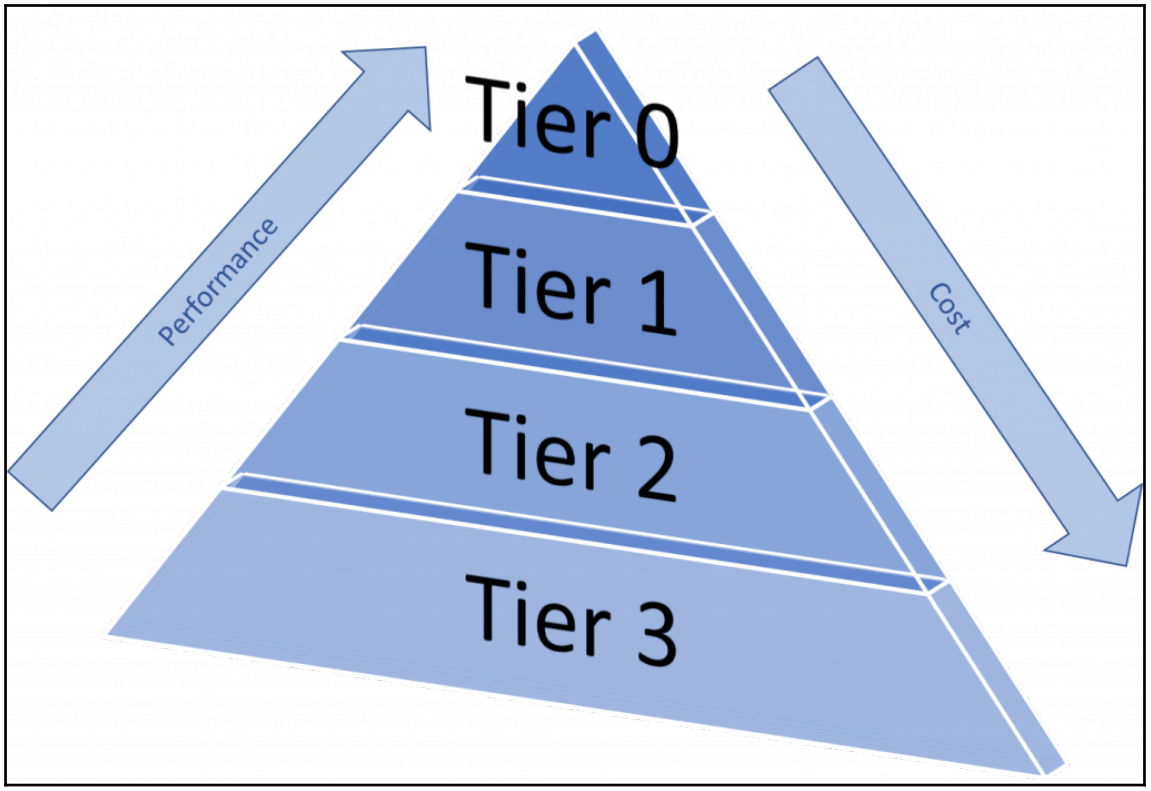

vxw-dvs-36-virtualwire-1-sid-5000-Web01
vxw-dvs-36-virtualwire-2-sid-5001-App01
vxw-dvs-36-virtualwire-3-sid-5002-DB01
vxw-dvs-36-virtualwire-4-sid-5003-Transport
vxw-dvs-36-virtualwire-5-sid-5004-Client

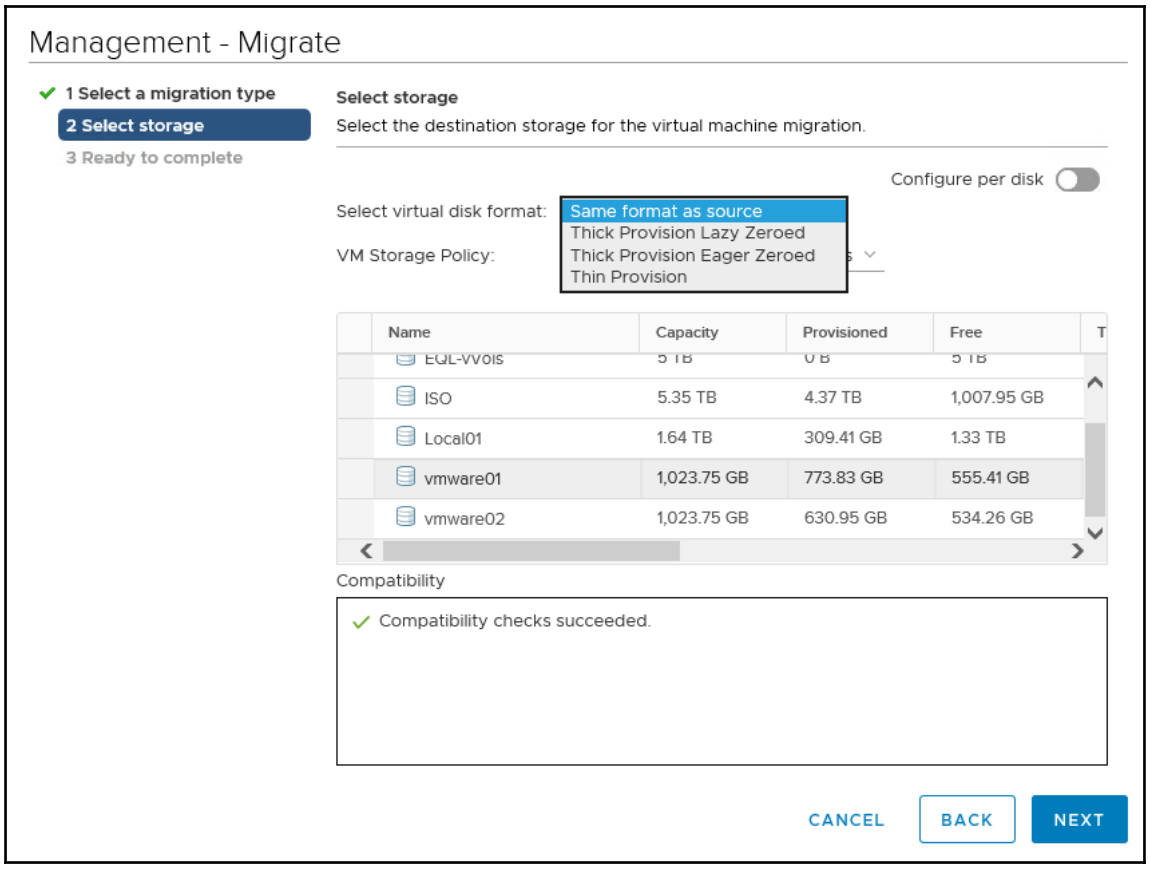

vmware vSphere Web Client
Navigator
Back
Networking & Security
NSX Home
Dashboard
Installation
Logical Switches
NSX Edges
NSX Edges
NSX Manager: 10.10.70.18
Actions
0 Installing
0 Failed
Id
Name
Type
Version
edge-1
DLR
Logical Router
6.3.3
edge-2
EDGE-A
NSX Edge
6.3.3
edge-3
EDGE-B
NSX Edge
6.3.3
edge-4
EDGE-VIP
NSX Edge
6.3.3

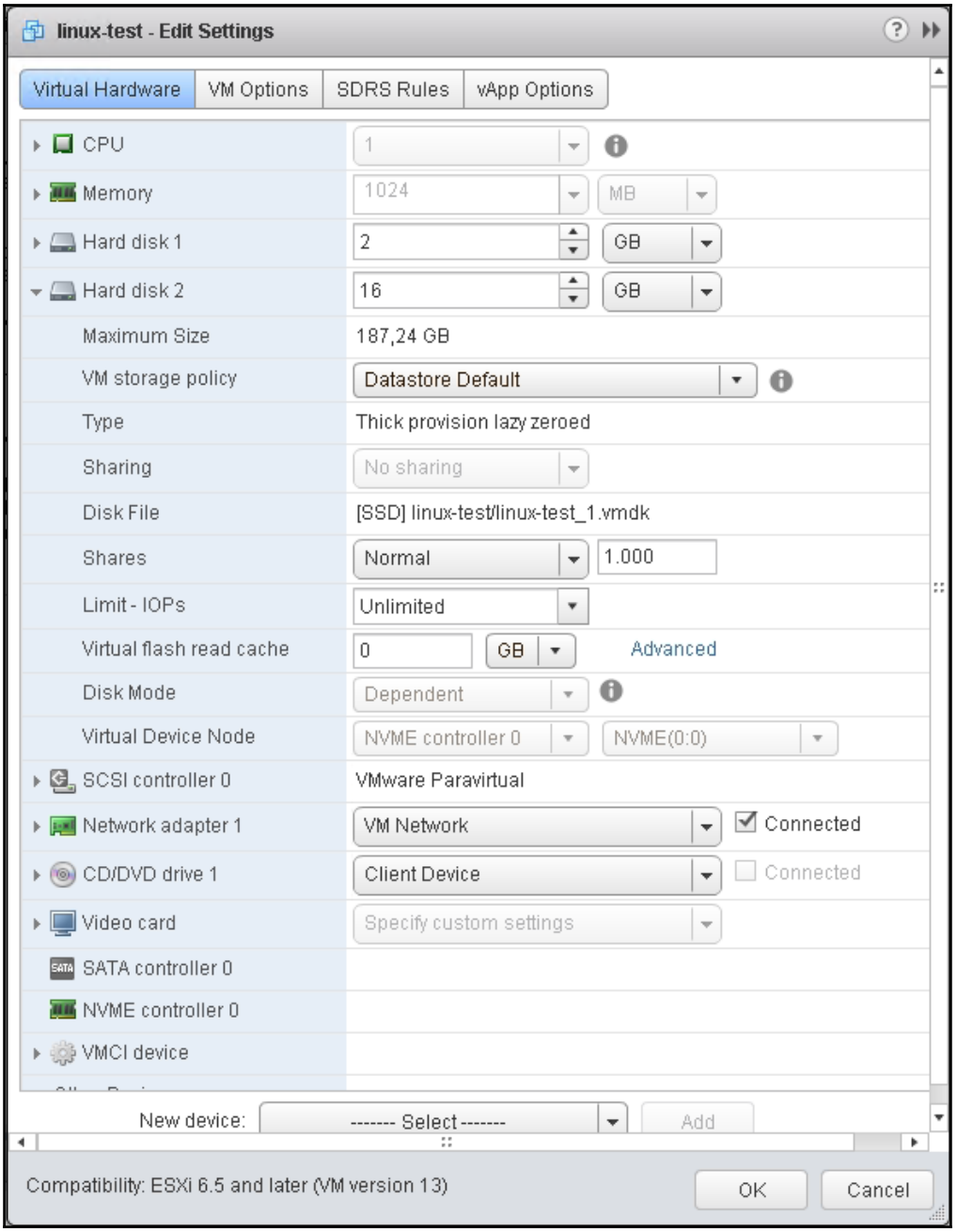

vmware vSphere Web Client
Administrator@VSPHERE.LOCAL
Help
Search
Navigator
Back
Networking & Security
NSX Home
Dashboard
Installation
Logical Switches
NSX Edges
Firewall
SpoofGuard
Service Definitions
Service Composer
Tools
Flow Monitoring
Traceflow
Endpoint Monitoring
Networking & Security Inventory
NSX Managers
Firewall
Configuration
Saved Configurations
Settings
NSX Manager: 10.10.70.18
Last publish operation succeeded 11/17/17, 7:01:51 PM GMT+1
General
Ethernet
Partner security services
No.
Name
Rule ID
Source
Destination
Service
Action
Applied To
desktop (Rule 1)
1
desktopall
1031
any
any
any
Allow
Distributed Firewall
3T_SG_Intra_DB :: NSX Service Composer - Firewall (Rule 2 - 3)
2
desktopnsxtovip
1027
desktop-nsx
desktop-ubuntu
any
any
Allow
Distributed Firewall
3
Allow App to DB
1023
3T_SG_APP
3T_SG_DB
3T_MySQL
Allow
3T_SG_DB
3T_SP_Intra_App :: NSX Service Composer - Firewall (Rule 4)
3T_SP_Intra_Web :: NSX Service Composer - Firewall (Rule 5)
3T_Shared_Services :: NSX Service Composer - Firewall (Rule 6 - 7)
3T_AllowBlock_Log :: NSX Service Composer - Firewall (Rule 8 - 11)

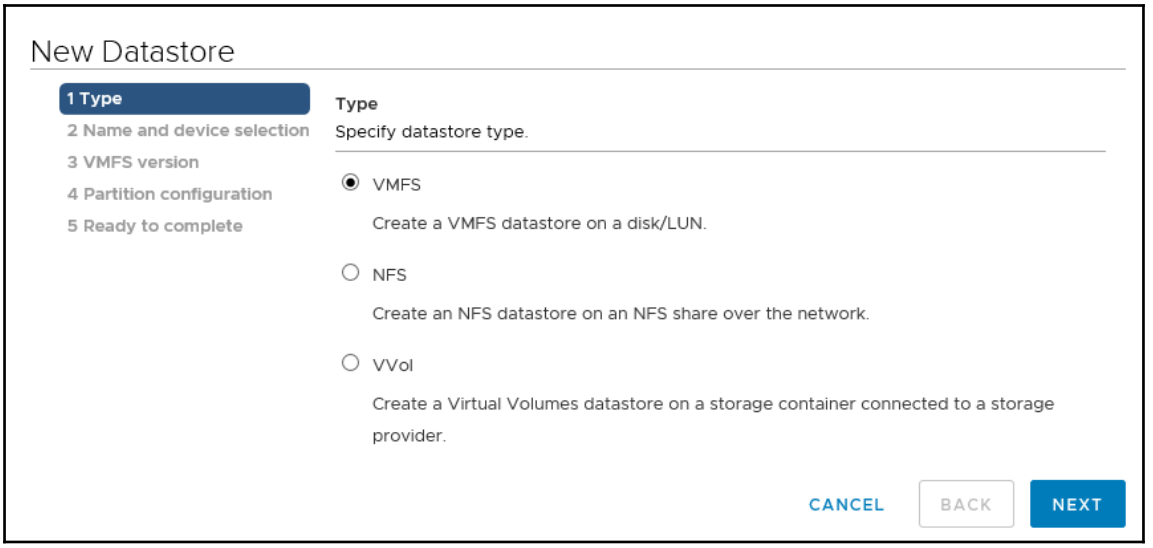
Chapter 7: Advanced Storage Management

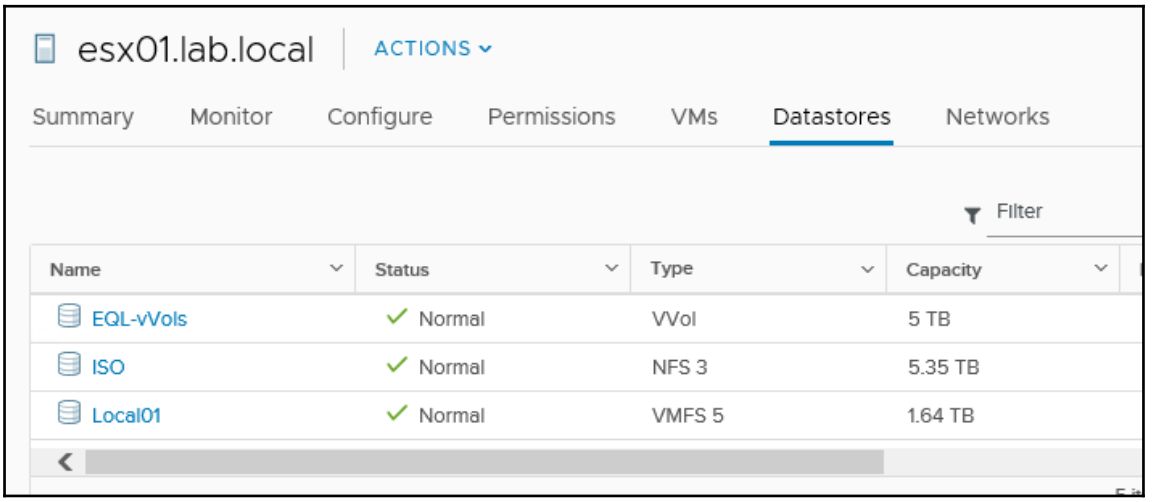


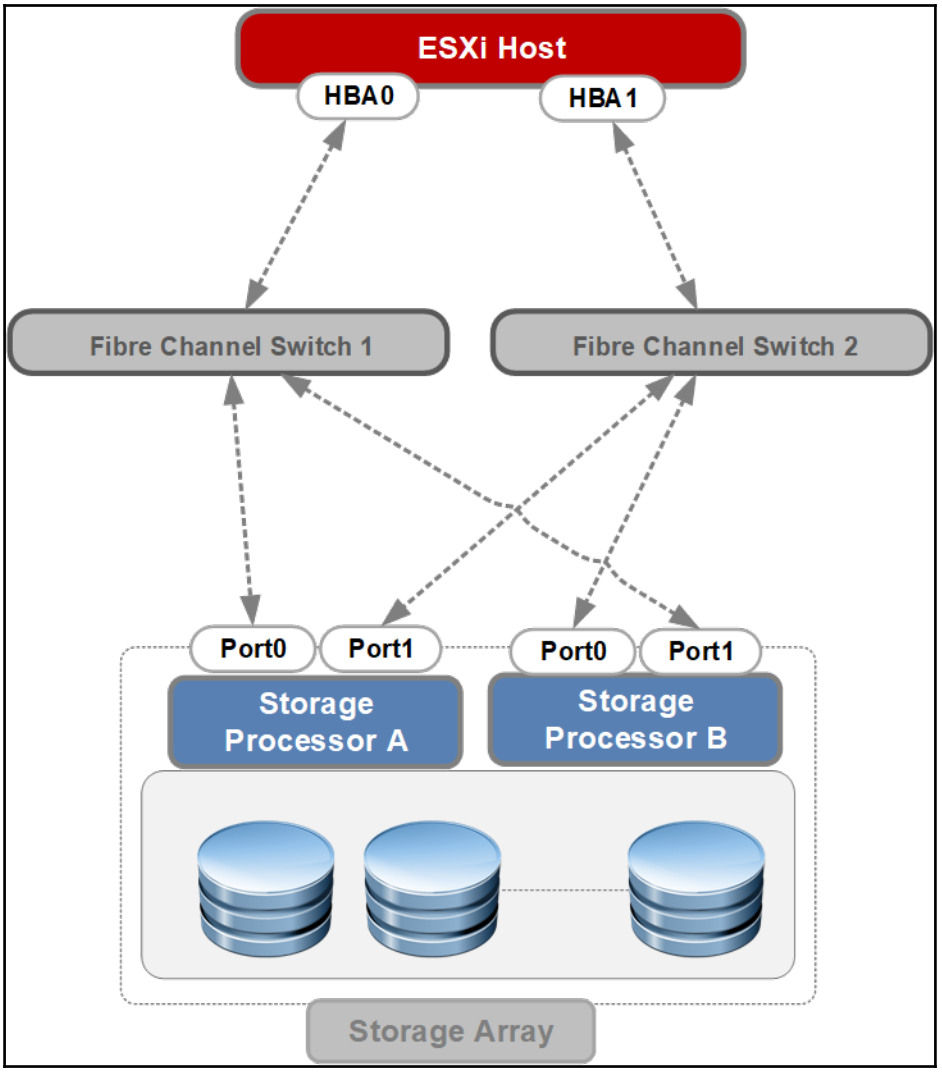

Tier 0
Tier 1
Tier 2
Tier 3
Performance
Cost

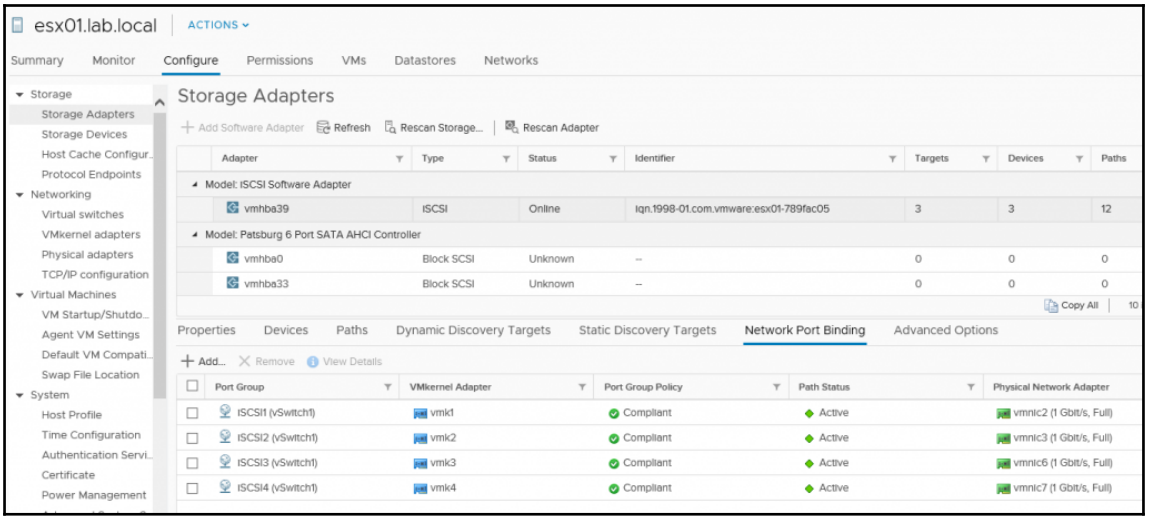

Management - Migrate
1 Select a migration type
2 Select storage
3 Ready to complete
Select storage
Select the destination storage for the virtual machine migration.
Configure per disk
Select virtual disk format:
Same format as source
Thick Provision Lazy Zeroed
Thick Provision Eager Zeroed
Thin Provision
VM Storage Policy:
Name
Capacity
Provisioned
Free
EQL-VVols
5 TB
0 B
5 TB
ISO
5.35 TB
4.37 TB
1,007.95 GB
Local01
1.64 TB
309.41 GB
1.33 TB
vmware01
1,023.75 GB
773.83 GB
555.41 GB
vmware02
1,023.75 GB
630.95 GB
534.26 GB
Compatibility
Compatibility checks succeeded.
CANCEL
BACK
NEXT

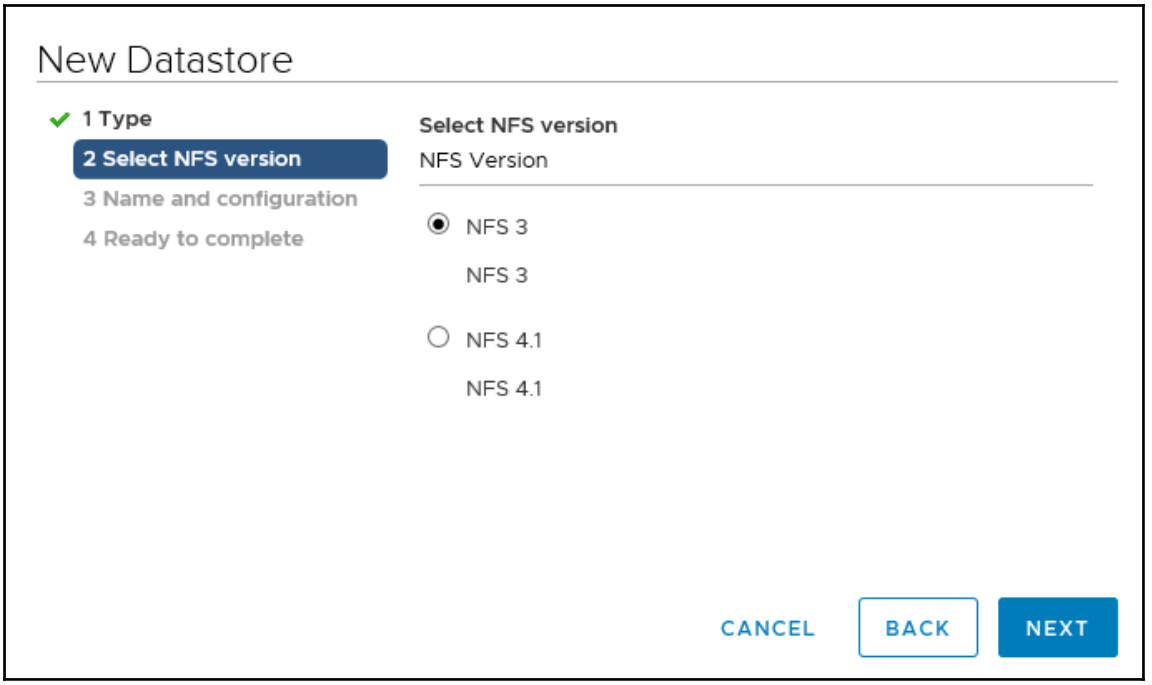

linux-test - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
1
Memory
1024
MB
Hard disk 1
2
GB
Hard disk 2
16
GB
Maximum Size
187,24 GB
VM storage policy
Datastore Default
Type
Thick provision lazy zeroed
Sharing
No sharing
Disk File
[SSD] linux-test/linux-test_1.vmdk
Shares
Normal
1.000
Limit - IOPs
Unlimited
Virtual flash read cache
0
GB
Advanced
Disk Mode
Dependent
Virtual Device Node
NVME controller 0
NVME(0:0)
SCSI controller 0
VMware Paravirtual
Network adapter 1
VM Network
Connected
CD/DVD drive 1
Client Device
Connected
Video card
Specify custom settings
SATA controller 0
NVME controller 0
VMCI device
New device:
------- Select -------
Add
Compatibility: ESXi 6.5 and later (VM version 13)
OK
Cancel

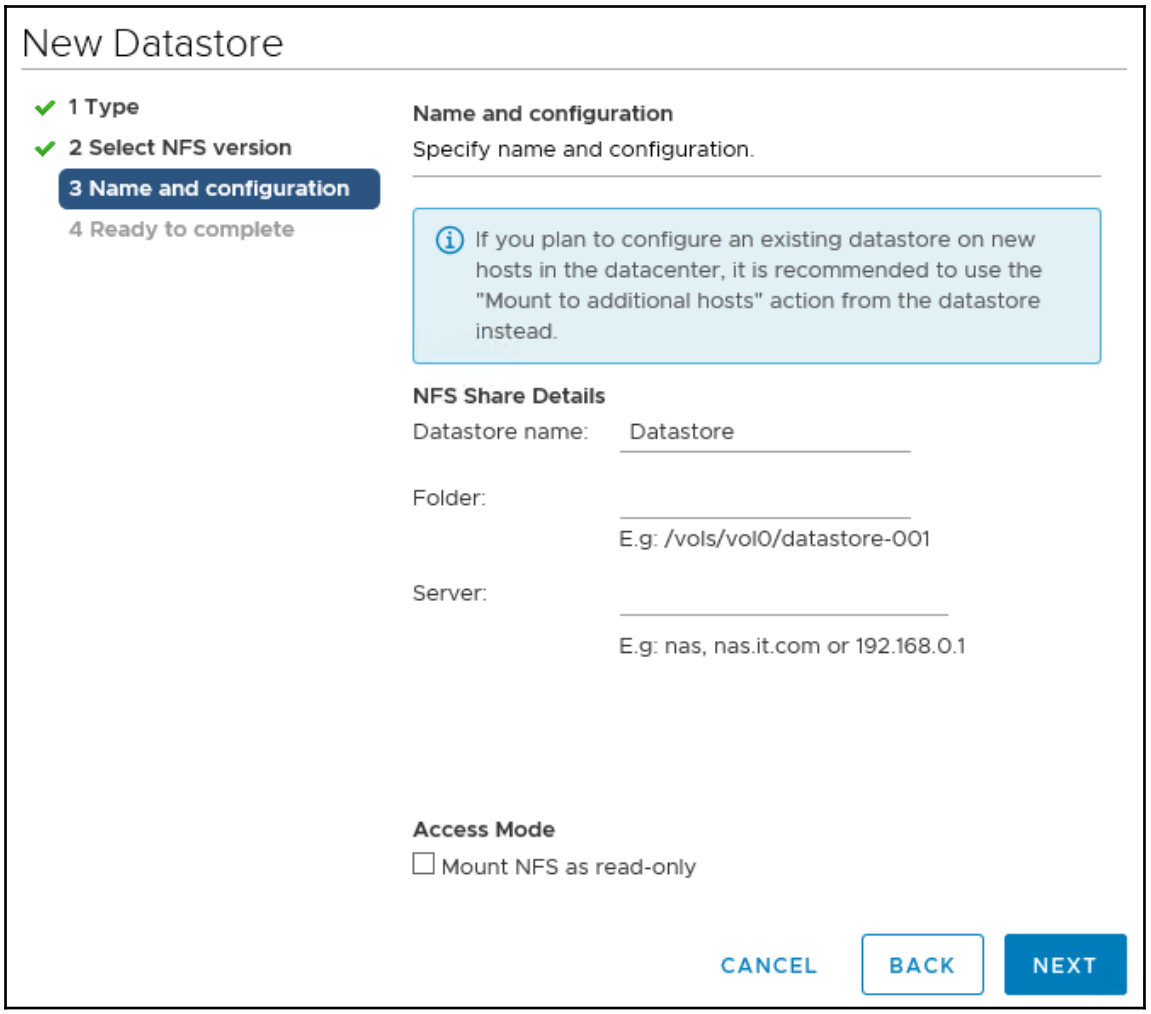

New Datastore
1 Type
2 Name and device selection
3 VMFS version
4 Partition configuration
5 Ready to complete
Type
Specify datastore type.
VMFS
Create a VMFS datastore on a disk/LUN.
NFS
Create an NFS datastore on an NFS share over the network.
VVol
Create a Virtual Volumes datastore on a storage container connected to a storage provider.
CANCEL
BACK
NEXT

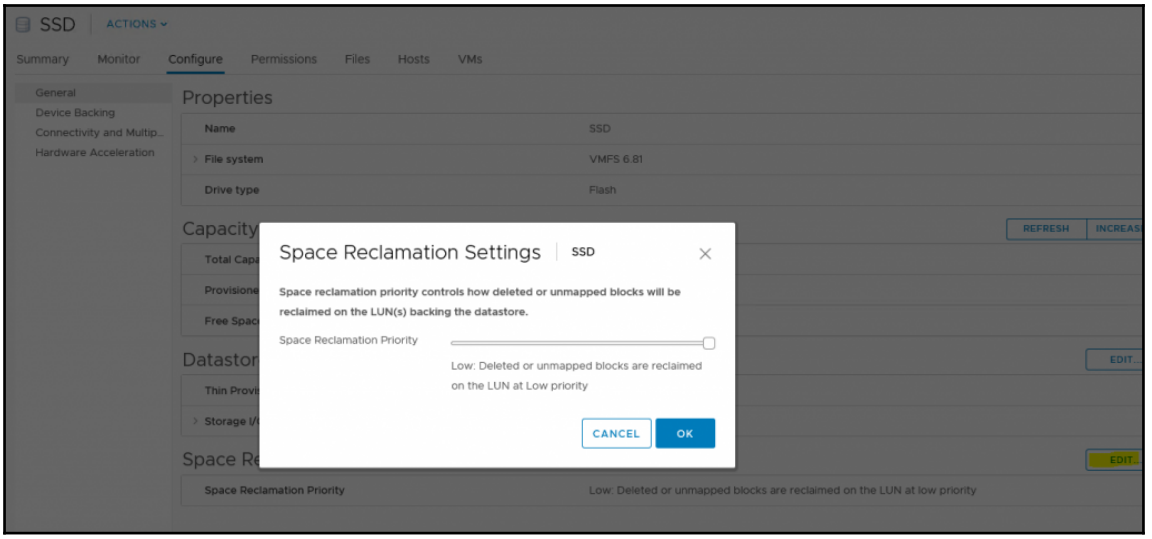

esx01.lab.local
ACTIONS
Summary
Monitor
Configure
Permissions
VMs
Datastores
Networks
Filter
Name
Status
Type
Capacity
EQL-vVols
Normal
VVol
5 TB
ISO
Normal
NFS 3
5.35 TB
Local01
Normal
VMFS 5
1.64 TB

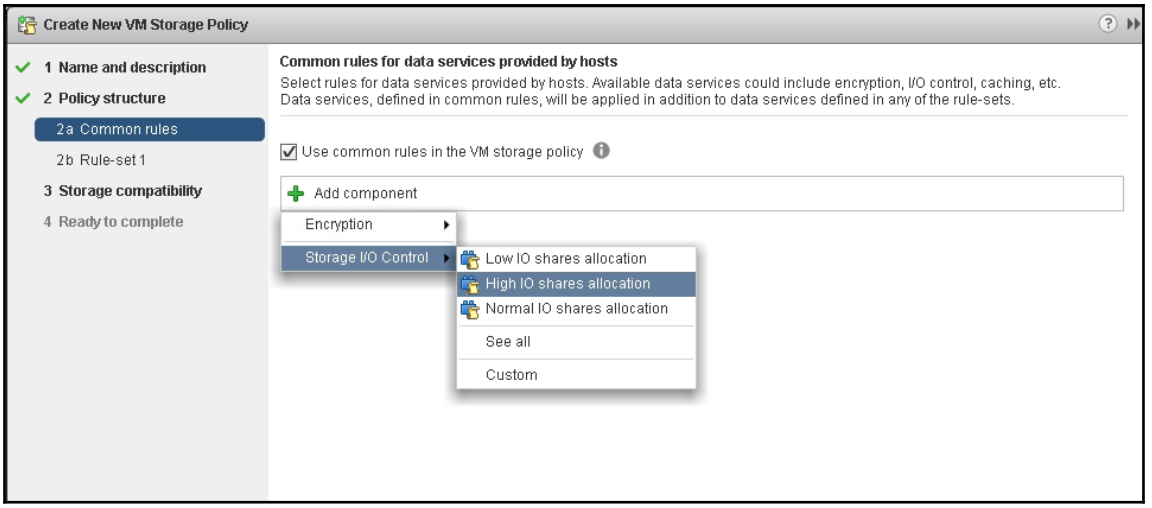

ESXi Host
HBA0
HBA1
Fibre Channel Switch 1
Fibre Channel Switch 2
Port0
Port1
Port0
Port1
Storage Processor A
Storage Processor B
Storage Array

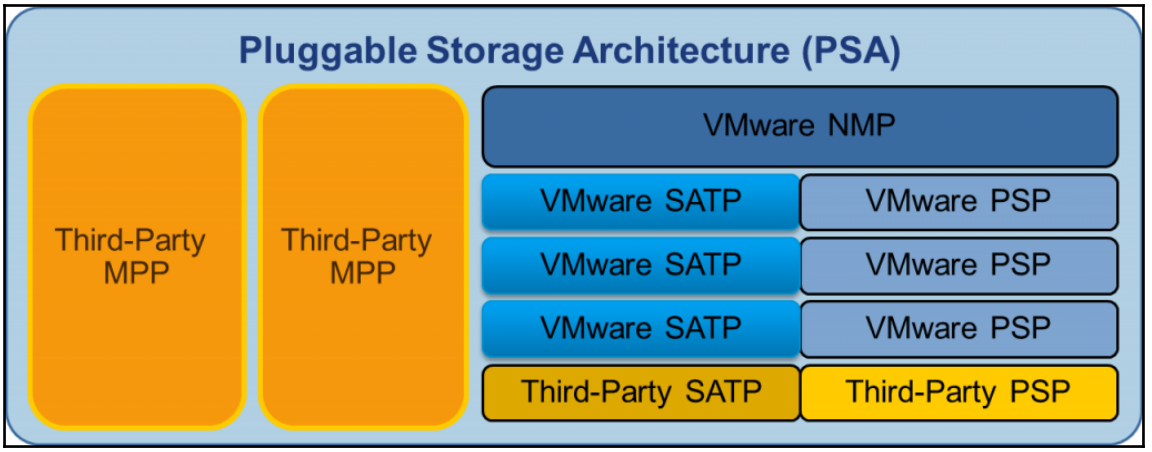

esx01.lab.local
ACTIONS
Summary
Monitor
Configure
Permissions
VMs
Datastores
Networks
Storage
Storage Adapters
Storage Devices
Host Cache Configur...
Protocol Endpoints
Networking
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration
Virtual Machines
VM Startup/Shutdo...
Agent VM Settings
Default VM Compati...
Swap File Location
System
Host Profile
Time Configuration
Authentication Servi...
Certificate
Power Management
Storage Adapters
Add Software Adapter
Refresh
Rescan Storage...
Rescan Adapter
Adapter
Type
Status
Identifier
Targets
Devices
Paths
Model: iSCSI Software Adapter
vmhba39
iSCSI
Online
iqn.1998-01.com.vmware:esx01-789fac05
3
3
12
Model: Patsburg 6 Port SATA AHCI Controller
vmhba0
Block SCSI
Unknown
--
0
0
0
vmhba33
Block SCSI
Unknown
--
0
0
0
Copy All
10
Properties
Devices
Paths
Dynamic Discovery Targets
Static Discovery Targets
Network Port Binding
Advanced Options
Add...
Remove
View Details
Port Group
VMkernel Adapter
Port Group Policy
Path Status
Physical Network Adapter
iSCSI1 (vSwitch1)
vmk1
Compliant
Active
vmnic2 (1 Gbit/s, Full)
iSCSI2 (vSwitch1)
vmk2
Compliant
Active
vmnic3 (1 Gbit/s, Full)
iSCSI3 (vSwitch1)
vmk3
Compliant
Active
vmnic6 (1 Gbit/s, Full)
iSCSI4 (vSwitch1)
vmk4
Compliant
Active
vmnic7 (1 Gbit/s, Full)

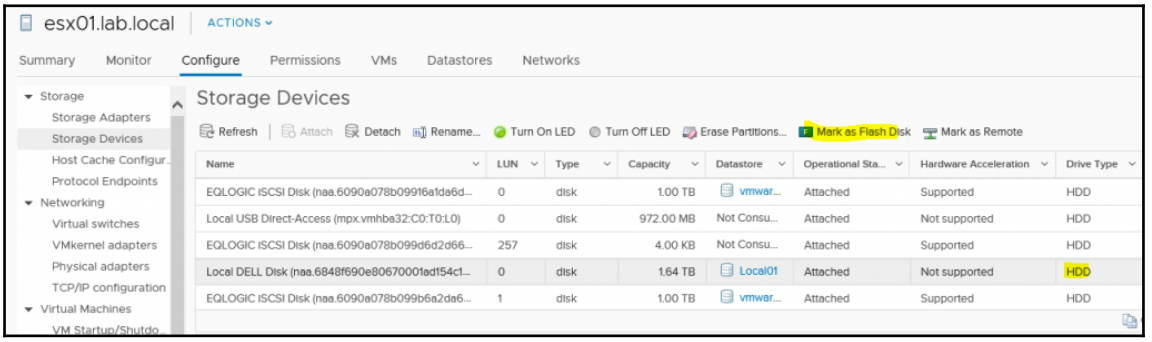

New Datastore
1 Type
2 Select NFS version
3 Name and configuration
4 Ready to complete
Select NFS version
NFS Version
NFS 3
NFS 3
NFS 4.1
NFS 4.1
CANCEL
BACK
NEXT

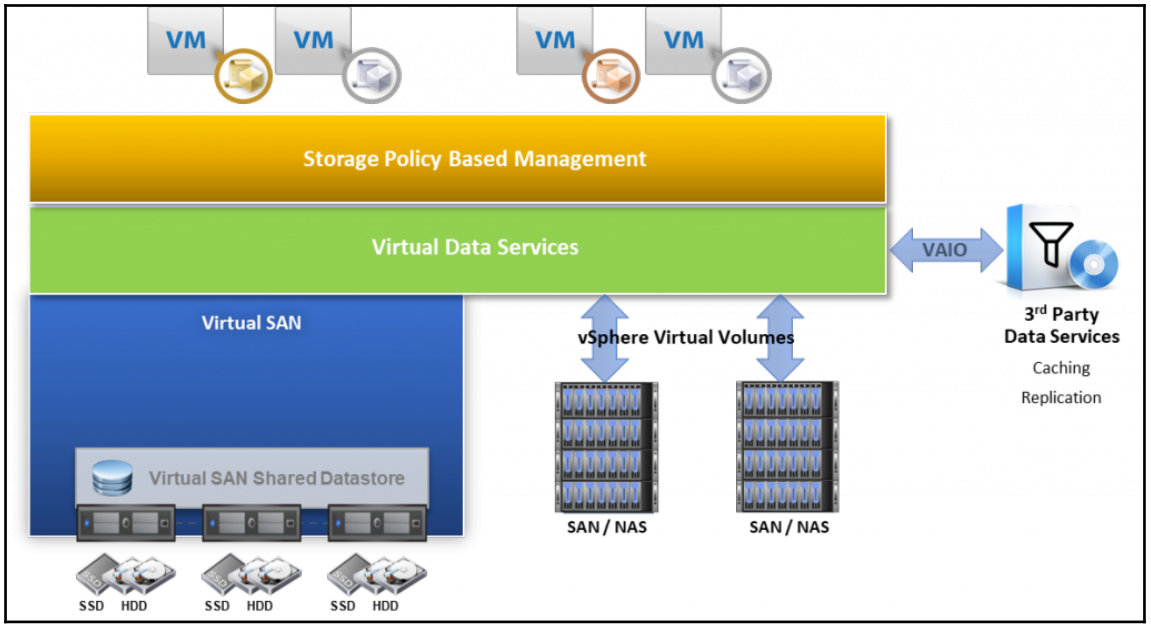

New Datastore
1 Type
2 Select NFS version
3 Name and configuration
4 Ready to complete
Name and configuration
Specify name and configuration.
If you plan to configure an existing datastore on new hosts in the datacenter, it is recommended to use the "Mount to additional hosts" action from the datastore instead.
NFS Share Details
Datastore name:
Datastore
Folder:
E.g: /vols/vol0/datastore-001
Server:
E.g: nas, nas.it.com or 192.168.0.1
Access Mode
Mount NFS as read-only
CANCEL
BACK
NEXT

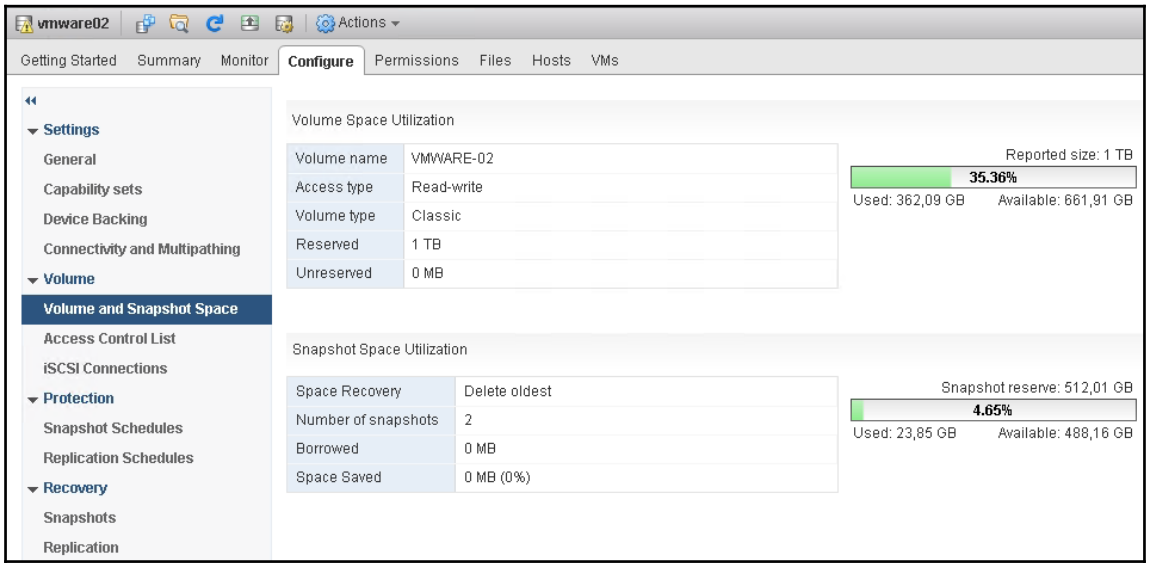

SSD
ACTIONS
Summary
Monitor
Configure
Permissions
Files
Hosts
VMs
General
Device Backing
Connectivity and Multip..
Hardware Acceleration
Properties
Name
SSD
File system
VMFS 6.81
Drive type
Flash
Capacity
REFRESH
Space Reclamation Settings
SSD
Space reclamation priority controls how deleted or unmapped blocks will be reclaimed on the LUN(s) backing the datastore.
Space Reclamation Priority
Low: Deleted or unmapped blocks are reclaimed on the LUN at Low priority
CANCEL
OK
EDIT...
Space Reclamation Priority
Low: Deleted or unmapped blocks are reclaimed on the LUN at low priority

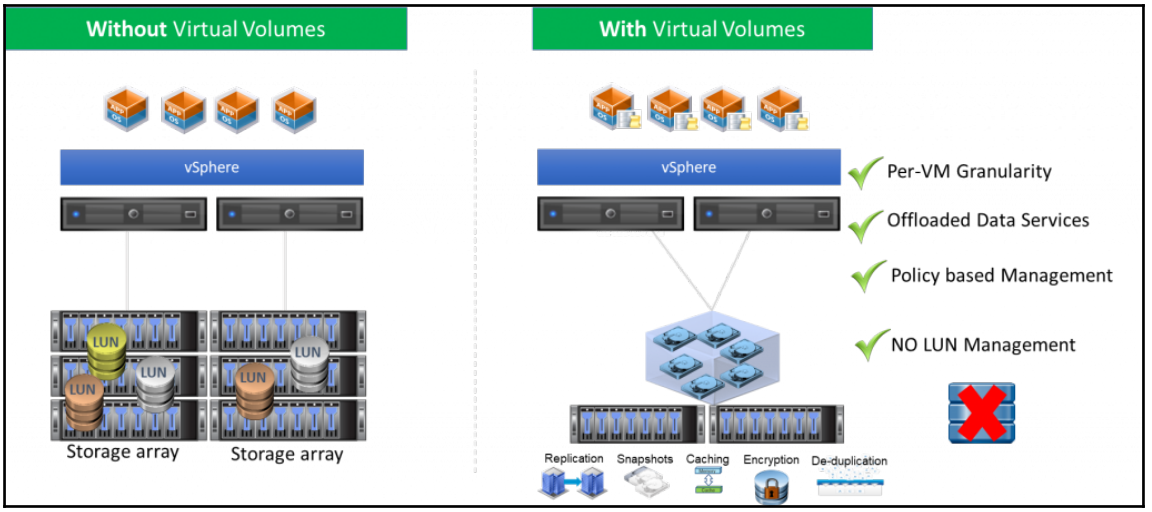

Create New VM Storage Policy
1 Name and description
2 Policy structure
2a Common rules
2b Rule-set 1
3 Storage compatibility
4 Ready to complete
Common rules for data services provided by hosts
Select rules for data services provided by hosts. Available data services could include encryption, I/O control, caching, etc.
Data services, defined in common rules, will be applied in addition to data services defined in any of the rule-sets.
Use common rules in the VM storage policy
Add component
Encryption
Storage I/O Control
Low IO shares allocation
High IO shares allocation
Normal IO shares allocation
See all
Custom


Pluggable Storage Architecture (PSA)
Third-Party MPP
Third-Party MPP
VMware NMP
VMware SATP
VMware PSP
VMware SATP
VMware PSP
VMware SATP
VMware PSP
Third-Party SATP
Third-Party PSP


esx01.lab.local
ACTIONS
Summary
Monitor
Configure
Permissions
VMs
Datastores
Networks
Storage
Storage Adapters
Storage Devices
Host Cache Configur...
Protocol Endpoints
Networking
Virtual switches
VMkernel adapters
Physical adapters
TCP/IP configuration
Virtual Machines
VM Startup/Shutdo...
Storage Devices
Refresh
Attach
Detach
Rename...
Turn On LED
Turn Off LED
Erase Partitions...
Mark as Flash Disk
Mark as Remote
Name
LUN
Type
Capacity
Datastore
Operational Sta...
Hardware Acceleration
Drive Type
EQLOGIC iSCSI Disk (naa.6090a078b09916a1da6d... 0 disk 1.00 TB vmwar... Attached Supported HDD
Local USB Direct-Access (mpx.vmhba32:C0:T0:L0) 0 disk 972.00 MB Not Consu... Attached Not supported HDD
EQLOGIC iSCSI Disk (naa.6090a078b099d6d2d66... 257 disk 4.00 KB Not Consu... Attached Supported HDD
Local DELL Disk (naa.6848f690e80670001ad154c1... 0 disk 1.64 TB Local01 Attached Not supported HDD
EQLOGIC iSCSI Disk (naa.6090a078b099b6a2da6... 1 disk 1.00 TB vmwar... Attached Supported HDD


VM
VM
VM
VM
Storage Policy Based Management
Virtual Data Services
VAIO
3rd Party
Data Services
Caching
Replication
Virtual SAN
vSphere Virtual Volumes
Virtual SAN Shared Datastore
SAN / NAS
SAN / NAS
SSD
HDD
SSD
HDD
SSD
HDD


vmware02
Actions
Getting Started
Summary
Monitor
Configure
Permissions
Files
Hosts
VMs
Settings
General
Capability sets
Device Backing
Connectivity and Multipathing
Volume
Volume and Snapshot Space
Access Control List
iSCSI Connections
Protection
Snapshot Schedules
Replication Schedules
Recovery
Snapshots
Replication
Volume Space Utilization
Volume name
VMWARE-02
Access type
Read-write
Volume type
Classic
Reserved
1 TB
Unreserved
0 MB
Reported size: 1 TB
35.36%
Used: 362,09 GB
Available: 661,91 GB
Snapshot Space Utilization
Space Recovery
Delete oldest
Number of snapshots
2
Borrowed
0 MB
Space Saved
0 MB (0%)
Snapshot reserve: 512,01 GB
4.65%
Used: 23,85 GB
Available: 488,16 GB



Cluster - Edit Cluster Settings

- **Failures and responses**
- Admission Control
- Heartbeat Datastores
- Advanced Options

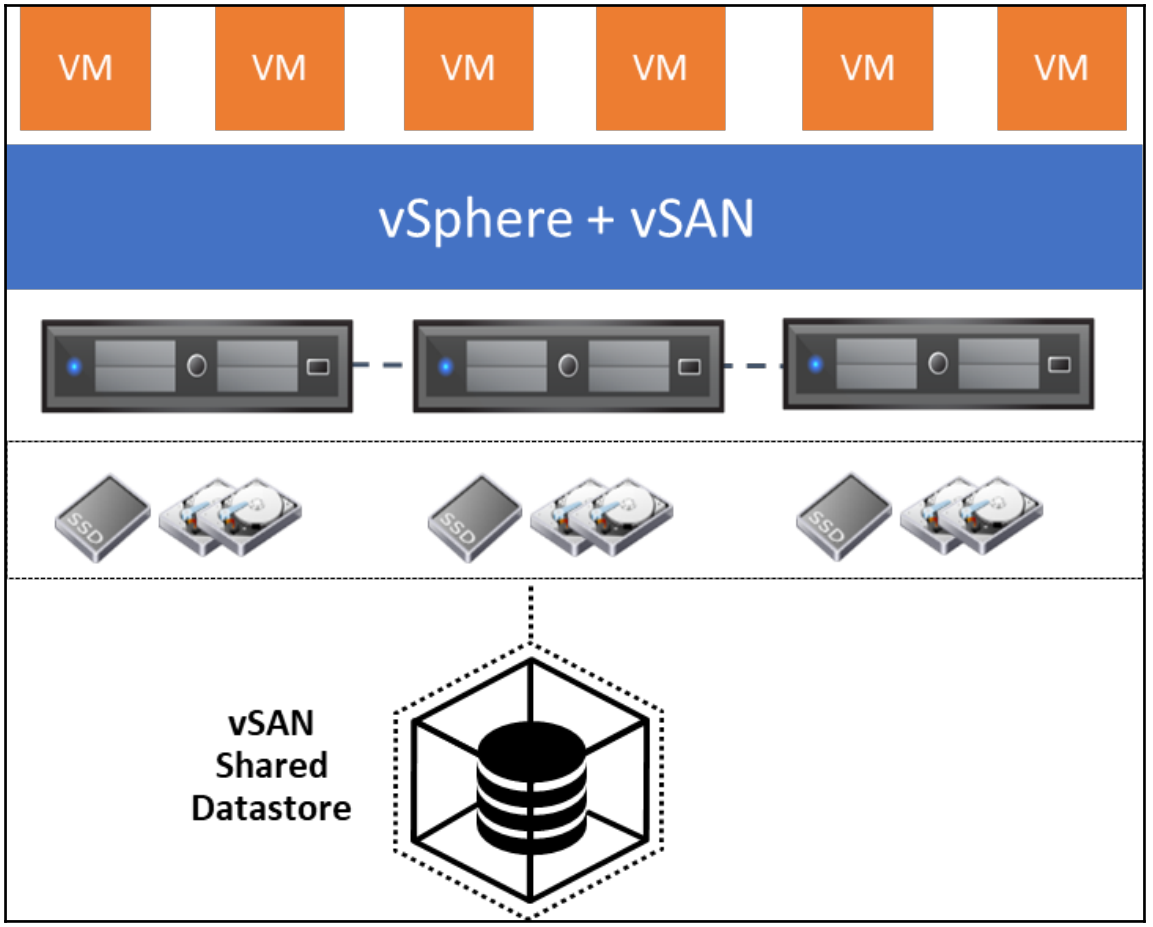
☑ Turn ON vSphere HA

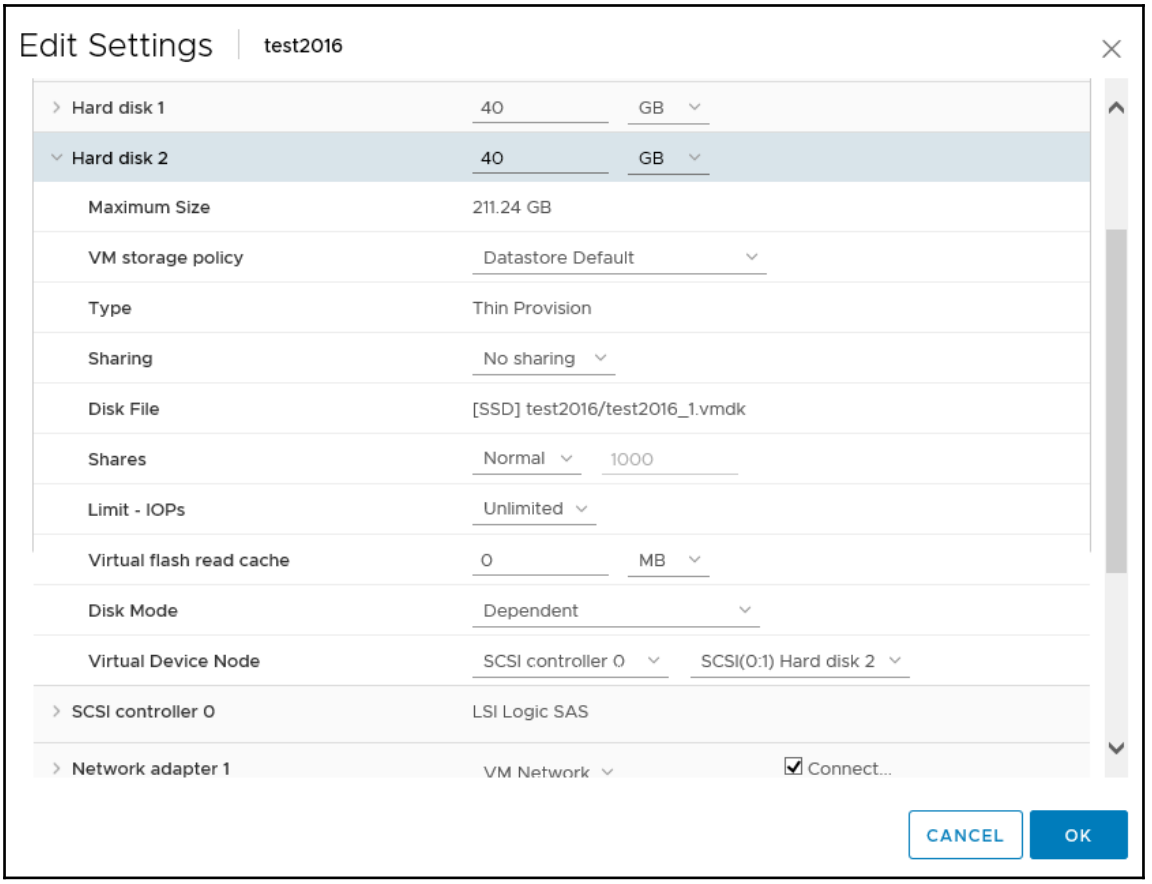
You can configure how vSphere HA responds to the failure conditions on this cluster. The following failure conditions are supported: host, host isolation, VM component protection (datastore with PDL and APD), VM and application.

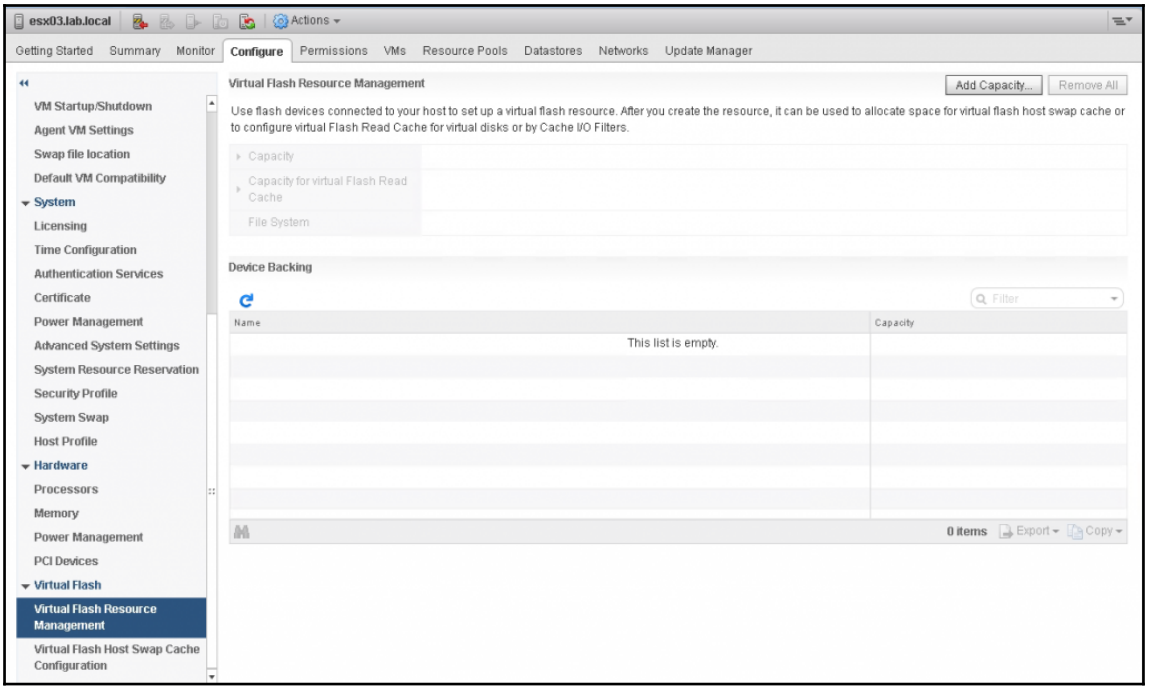
☑ Enable Host Monitoring

Host Failure Response	Restart VMs
Response for Host Isolation	Disabled
Datastore with PDL	Issue events
Datastore with APD	Issue events
VM Monitoring	VM Monitoring Only

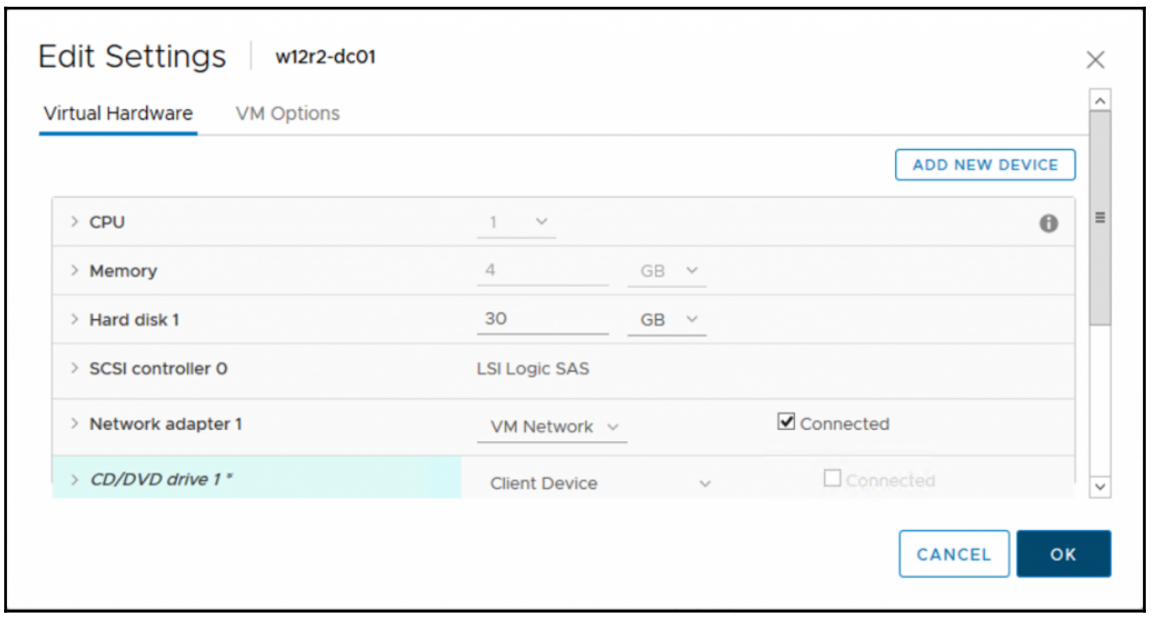
CANCEL OK

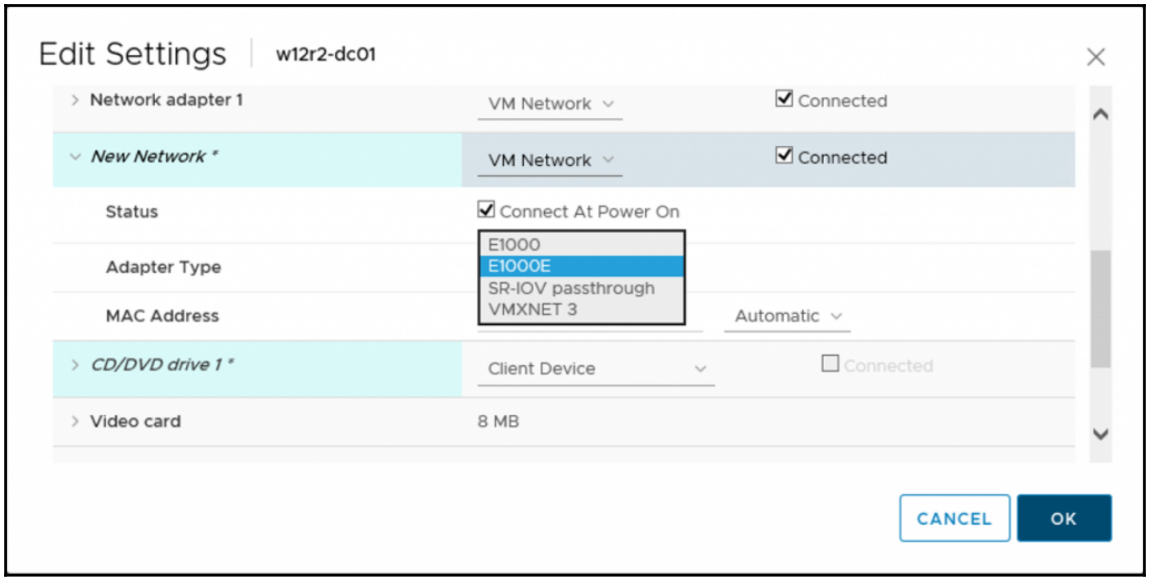

VM
VM
VM
VM
VM
VM
vSphere + vSAN
SSD
SSD
SSD
vSAN
Shared
Datastore

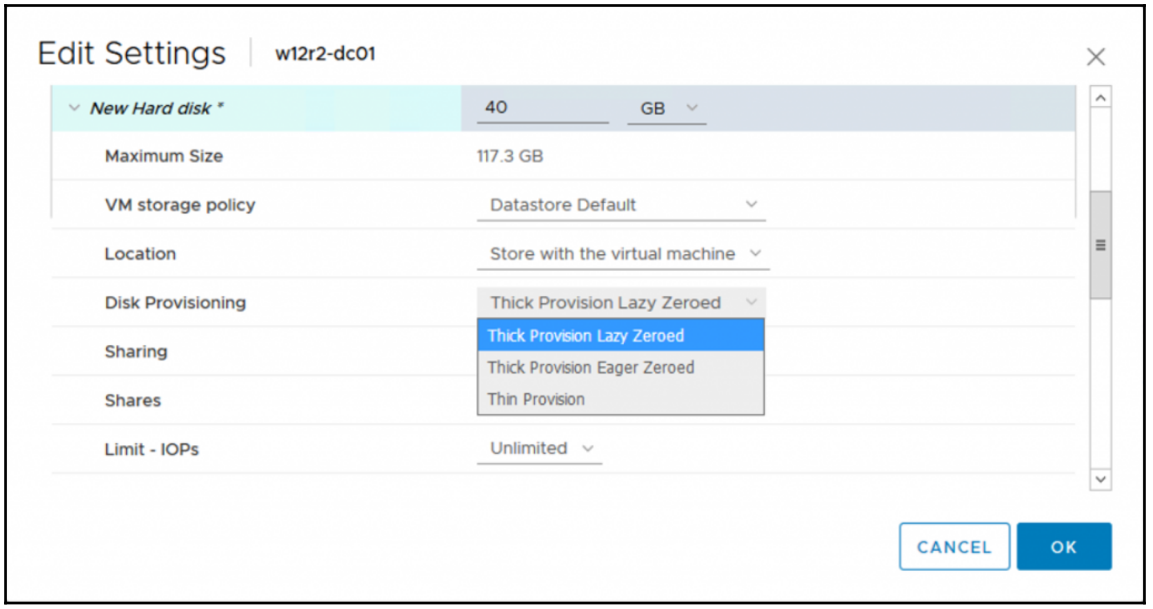

Edit Settings
test2016
Hard disk 1
40
GB
Hard disk 2
40
GB
Maximum Size
211.24 GB
VM storage policy
Datastore Default
Type
Thin Provision
Sharing
No sharing
Disk File
[SSD] test2016/test2016_1.vmdk
Shares
Normal
1000
Limit - IOPs
Unlimited
Virtual flash read cache
0
MB
Disk Mode
Dependent
Virtual Device Node
SCSI controller 0
SCSI(0:1) Hard disk 2
SCSI controller 0
LSI Logic SAS
Network adapter 1
VM Network
Connect...
CANCEL
OK

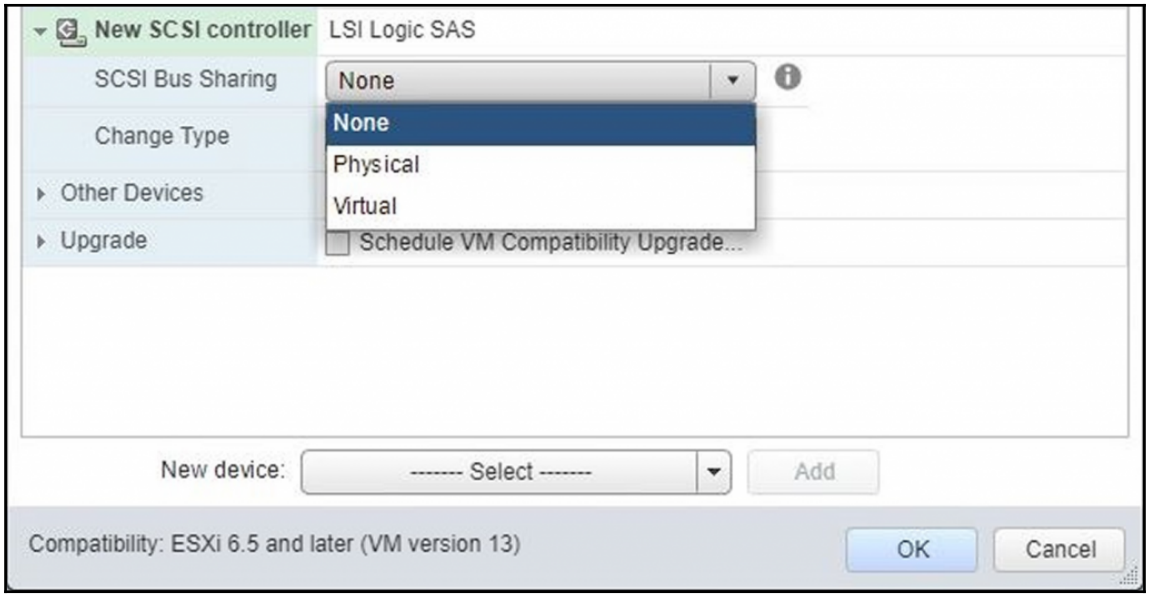

esx03.lab.local
Actions
Getting Started
Summary
Monitor
Configure
Permissions
VMs
Resource Pools
Datastores
Networks
Update Manager
VM Startup/Shutdown
Agent VM Settings
Swap file location
Default VM Compatibility
System
Licensing
Time Configuration
Authentication Services
Certificate
Power Management
Advanced System Settings
System Resource Reservation
Security Profile
System Swap
Host Profile
Hardware
Processors
Memory
Power Management
PCI Devices
Virtual Flash
Virtual Flash Resource Management
Virtual Flash Host Swap Cache Configuration
Virtual Flash Resource Management
Add Capacity...
Remove All
Use flash devices connected to your host to set up a virtual flash resource. After you create the resource, it can be used to allocate space for virtual flash host swap cache or to configure virtual Flash Read Cache for virtual disks or by Cache I/O Filters.
Capacity
Capacity for virtual Flash Read Cache
File System
Device Backing
Filter
Name
Capacity
This list is empty.
0 items
Export
Copy

Chapter 8: Advanced VM and Resource Management





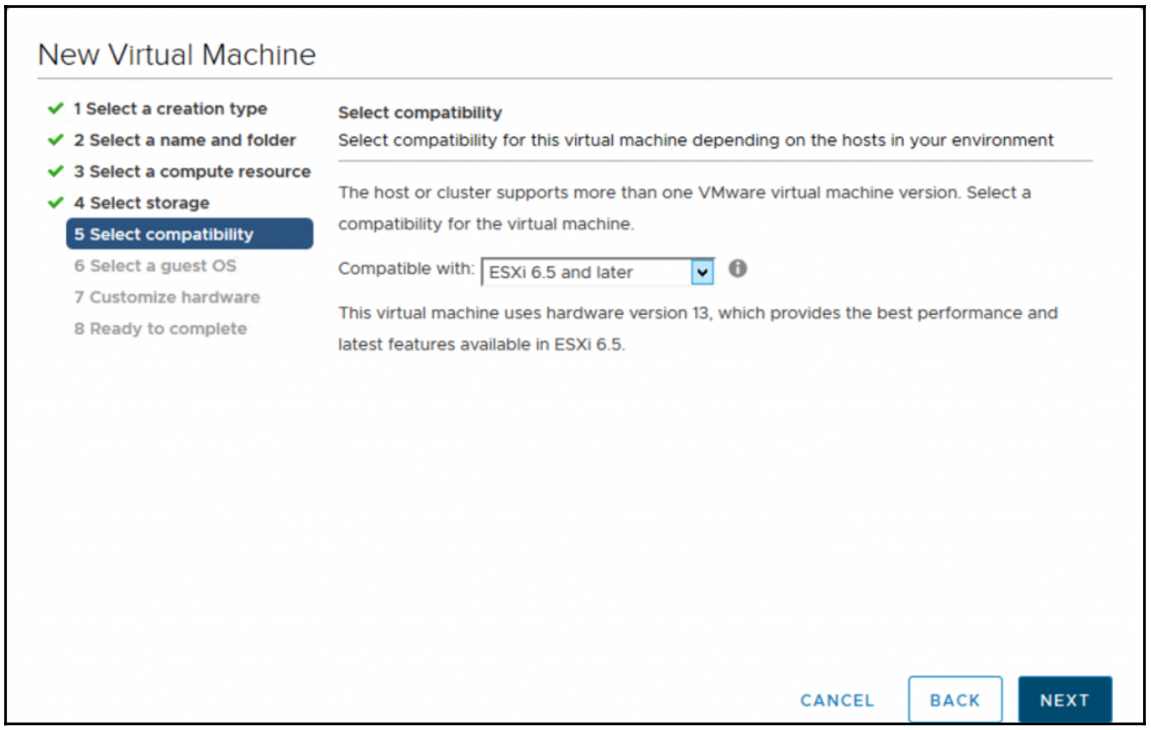

Edit Settings
w12r2-dc01
New Hard disk *
40
GB
Maximum Size
117.3 GB
VM storage policy
Datastore Default
Location
Store with the virtual machine
Disk Provisioning
Thick Provision Lazy Zeroed
Thick Provision Lazy Zeroed
Thick Provision Eager Zeroed
Thin Provision
Sharing
Shares
Limit - IOPs
Unlimited
CANCEL
OK

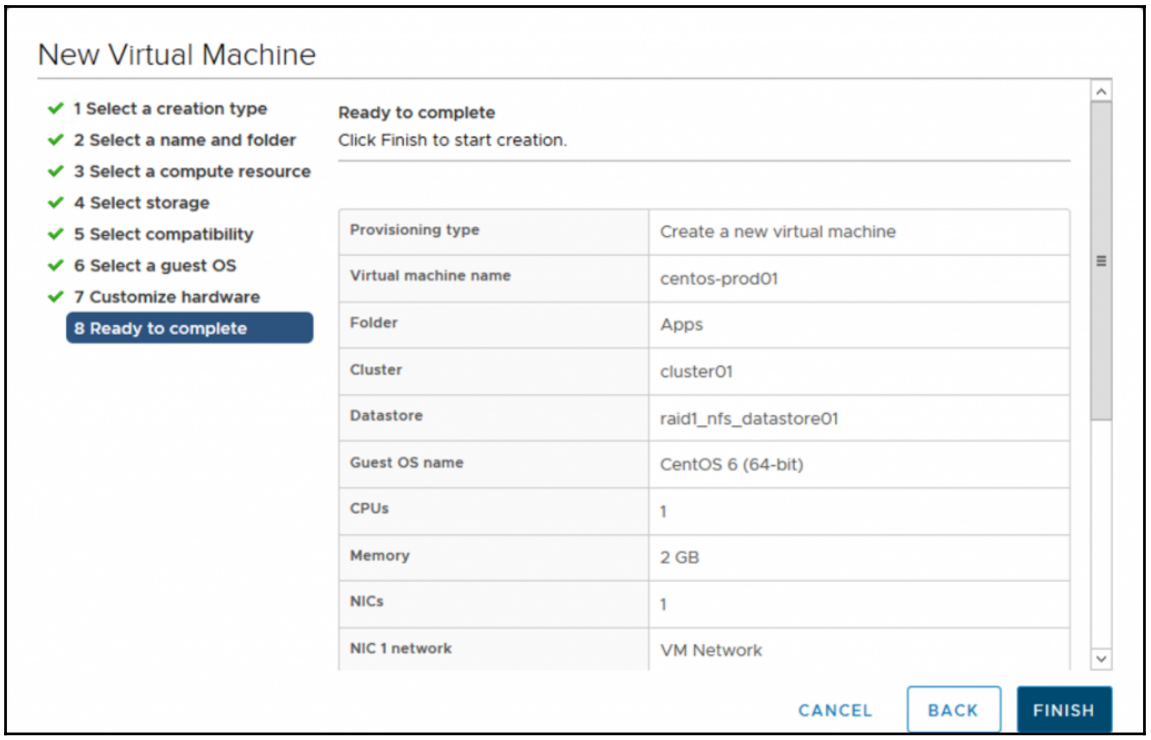

New SCSI controller
LSI Logic SAS
SCSI Bus Sharing
None
Change Type
None
Physical
Virtual
Other Devices
Upgrade
Schedule VM Compatibility Upgrade...
New device:
------- Select -------
Add
Compatibility: ESXi 6.5 and later (VM version 13)
OK
Cancel

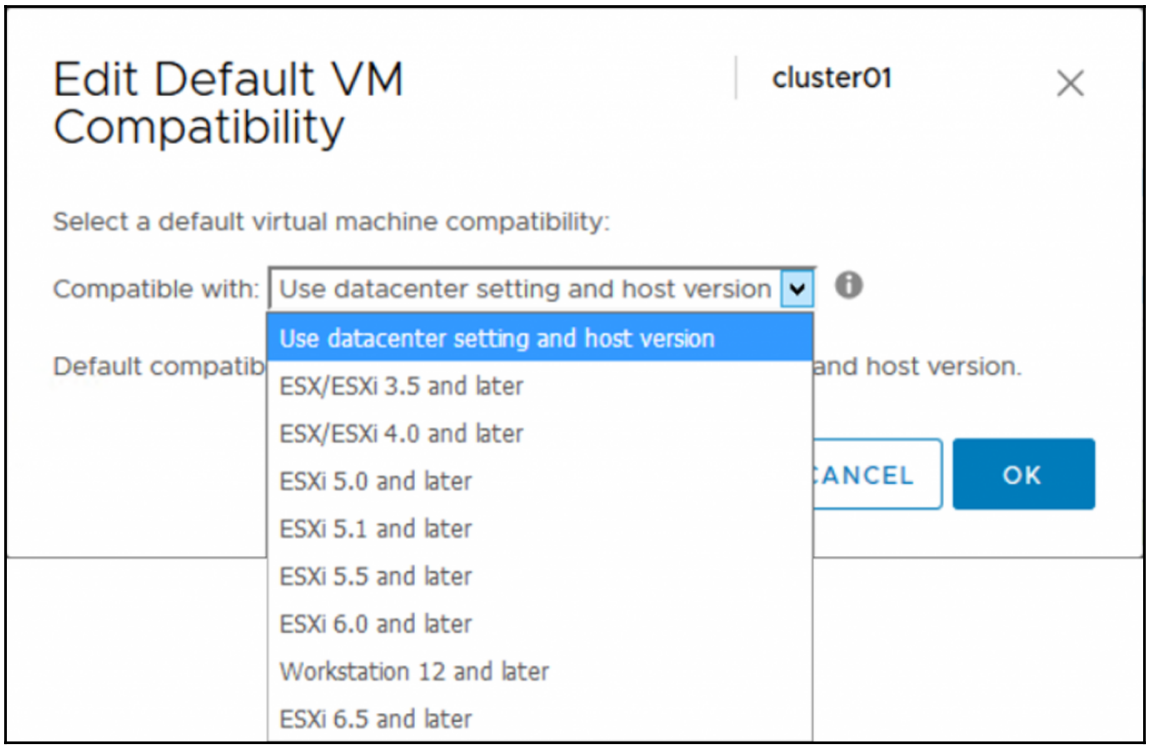
```
pciBridge4.present = "TRUE"
pciBridge4.virtualDev = "pcieRootPort"
pciBridge4.functions = "8"
pciBridge5.present = "TRUE"
pciBridge5.virtualDev = "pcieRootPort"
pciBridge5.functions = "8"
pciBridge6.present = "TRUE"
pciBridge6.virtualDev = "pcieRootPort"
pciBridge6.functions = "8"
pciBridge7.present = "TRUE"
pciBridge7.virtualDev = "pcieRootPort"
pciBridge7.functions = "8"
vmci0.present = "TRUE"
hpet0.present = "TRUE"
floppy0.present = "FALSE"
svga.vramSize = "8388608"
memSize = "4096"
tools.upgrade.policy = "manual"
scsi0.virtualDev = "lsisas1068"
scsi0.pciSlotNumber = "160"
scsi0.present = "TRUE"
sata0.pciSlotNumber = "33"
sata0.present = "TRUE"
scsi0:0.deviceType = "scsi-hardDisk"
scsi0:0.fileName = "w12r2-dc01.vmdk"
scsi0:0.present = "TRUE"
sata0:0.startConnected = "FALSE"
sata0:0.deviceType = "atapi-cdrom"
sata0:0.clientDevice = "TRUE"
sata0:0.fileName = "CD/DVD drive 0"
sata0:0.present = "TRUE"
vmci0.pciSlotNumber = "32"
ethernet0.virtualDev = "vmxnet3"
ethernet0.networkName = "VM Network"
ethernet0.addressType = "generated"
ethernet0.pciSlotNumber = "192"
ethernet0.uptCompatibility = "TRUE"
ethernet0.present = "TRUE"
displayName = "w12r2-dc01"
guestOS = "windows8srv-64"
disk.EnableUUID = "TRUE"
toolScripts.afterPowerOn = "TRUE"
```

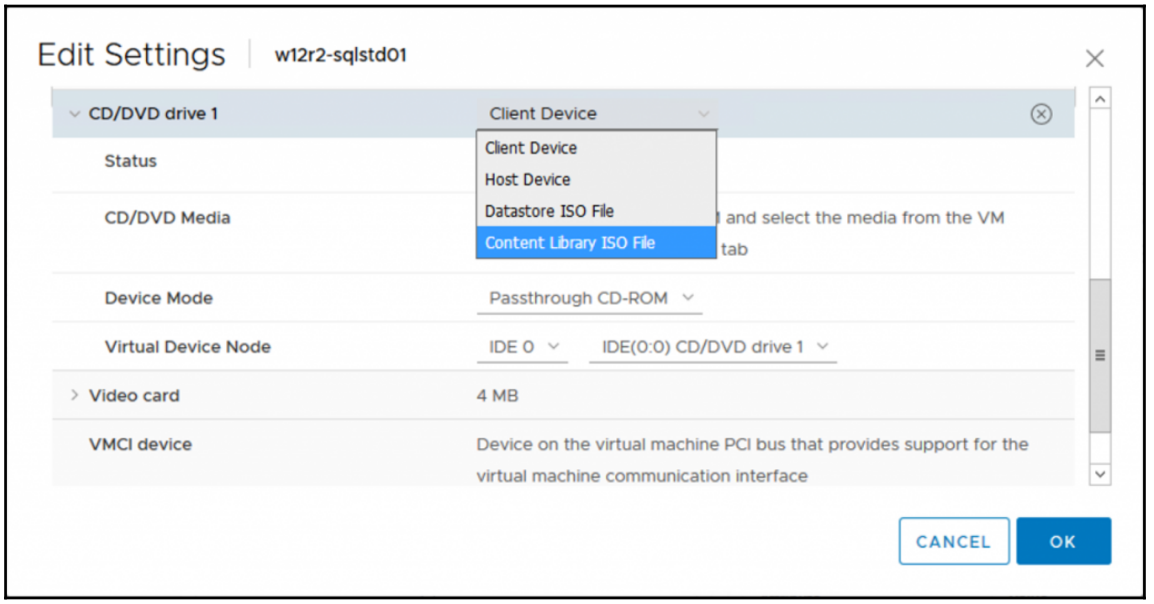
```
[root@esxi01:/vmfs/volumes/599ecc3b-a52c195f-15b4-000c296a6341/w12r2-dc01] ls -lh
total 17376320
-rw-r--r--    1 root     root      383.5K Aug 24 17:21 vmware-1.log
-rw-r--r--    1 root     root      680.3K Aug 30 06:45 vmware-2.log
-rw-r--r--    1 root     root      259.2K Sep  2 12:48 vmware-3.log
-rw-r--r--    1 root     root      251.7K Sep  2 20:58 vmware.log
-rw-------    1 root     root      110.0M Sep  2 16:21 vmx-w12r2-dc01-2701646168-1.vswp
-rw-------    1 root     root        4.0G Sep  2 21:18 w12r2-dc01-a107d958.vswp
-rw-------    1 root     root       30.0G Sep  2 21:23 w12r2-dc01-flat.vmdk
-rw-------    1 root     root        8.5K Sep  2 16:06 w12r2-dc01.nvram
-rw-------    1 root     root         552 Sep  2 16:06 w12r2-dc01.vmdk
-rw-r--r--    1 root     root           0 Aug 24 16:56 w12r2-dc01.vmsd
-rwxr-xr-x    1 root     root        2.6K Sep  2 16:06 w12r2-dc01.vmx
-rw-------    1 root     root           0 Aug 24 20:29 w12r2-dc01.vmx.lck
-rw-------    1 root     root        3.1K Aug 24 20:36 w12r2-dc01.vmxf
-rwxr-xr-x    1 root     root        2.6K Sep  2 16:06 w12r2-dc01.vmx~
[root@esxi01:/vmfs/volumes/599ecc3b-a52c195f-15b4-000c296a6341/w12r2-dc01]
```

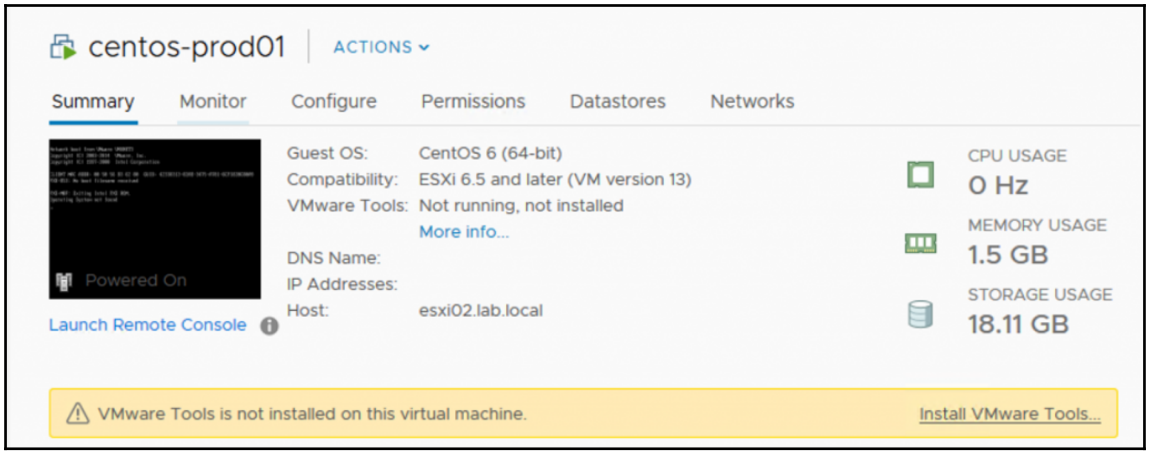
```
[root@lx6-vsftp01 /]# yum install open-vm-tools
Loaded plugins: fastestmirror, presto
Setting up Install Process
Loading mirror speeds from cached hostfile
 * base: it.centos.contactlab.it
 * epel: mirror.daniel-jost.net
 * extras: centos.mirror.iphh.net
 * rpmforge: mirror.chpc.utah.edu
 * updates: it.centos.contactlab.it
Resolving Dependencies
--> Running transaction check
---> Package open-vm-tools.x86_64 0:10.1.5-6.el6 will be installed
--> Processing Dependency: xmlsec1-openssl for package: open-vm-tools-10.1.5-6.e
l6.x86_64
--> Processing Dependency: libfuse.so.2(FUSE_2.6)(64bit) for package: open-vm-to
ols-10.1.5-6.el6.x86_64
```

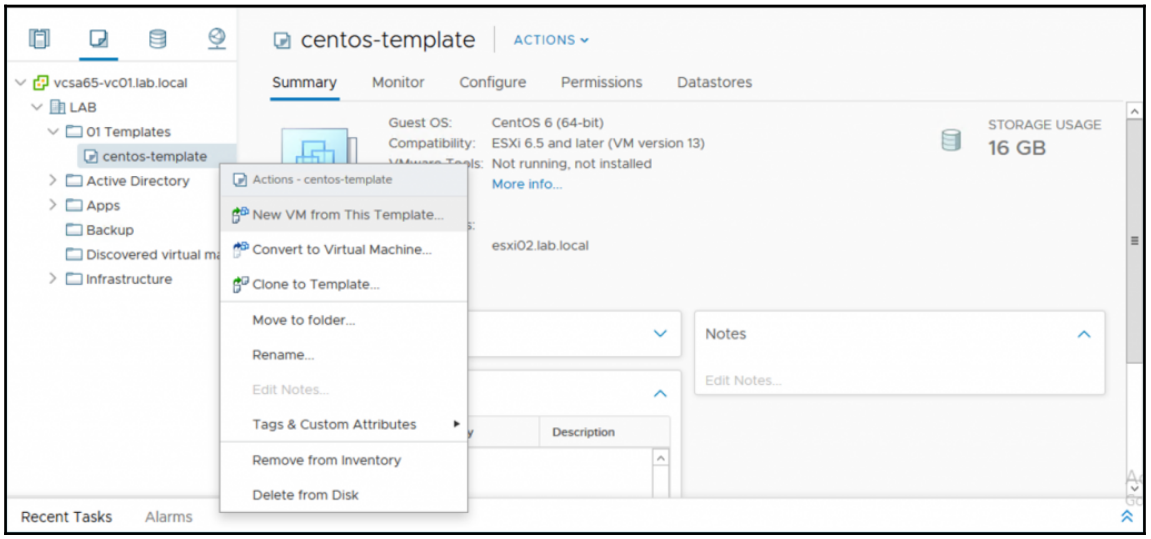

New Virtual Machine
1 Select a creation type
2 Select a name and folder
3 Select a compute resource
4 Select storage
5 Select compatibility
6 Select a guest OS
7 Customize hardware
8 Ready to complete
Select compatibility
Select compatibility for this virtual machine depending on the hosts in your environment
The host or cluster supports more than one VMware virtual machine version. Select a compatibility for the virtual machine.
Compatible with: ESXi 6.5 and later
This virtual machine uses hardware version 13, which provides the best performance and latest features available in ESXi 6.5.
CANCEL
BACK
NEXT

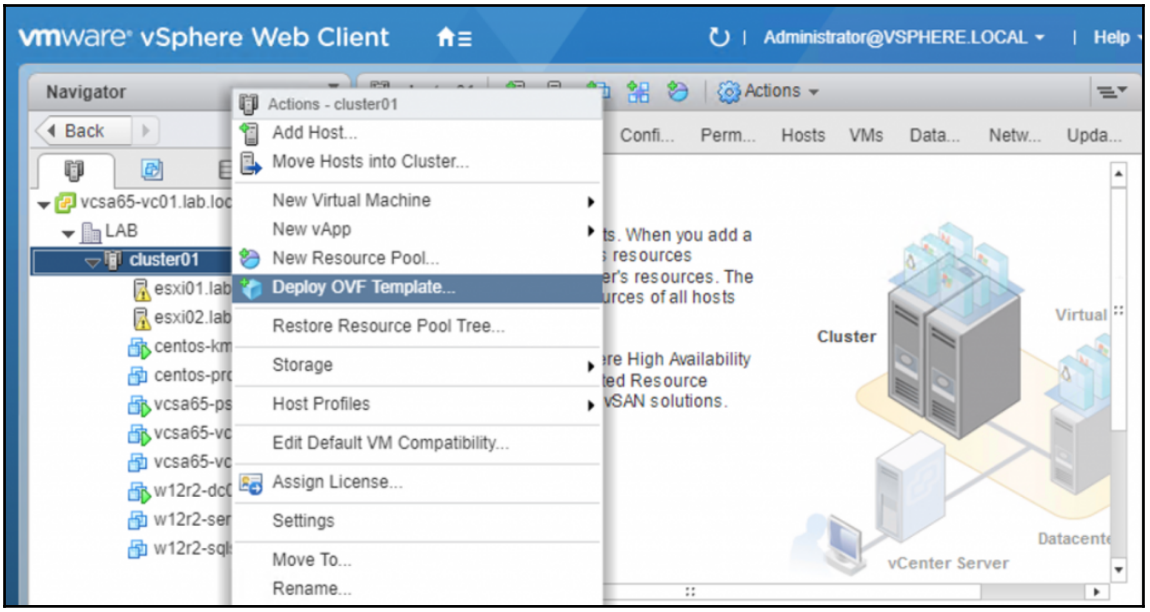

New Virtual Machine
1 Select a creation type
2 Select a name and folder
3 Select a compute resource
4 Select storage
5 Select compatibility
6 Select a guest OS
7 Customize hardware
8 Ready to complete
Ready to complete
Click Finish to start creation.
Provisioning type
Create a new virtual machine
Virtual machine name
centos-prod01
Folder
Apps
Cluster
cluster01
Datastore
raid1_nfs_datastore01
Guest OS name
CentOS 6 (64-bit)
CPUs
1
Memory
2 GB
NICs
1
NIC 1 network
VM Network
CANCEL
BACK
FINISH

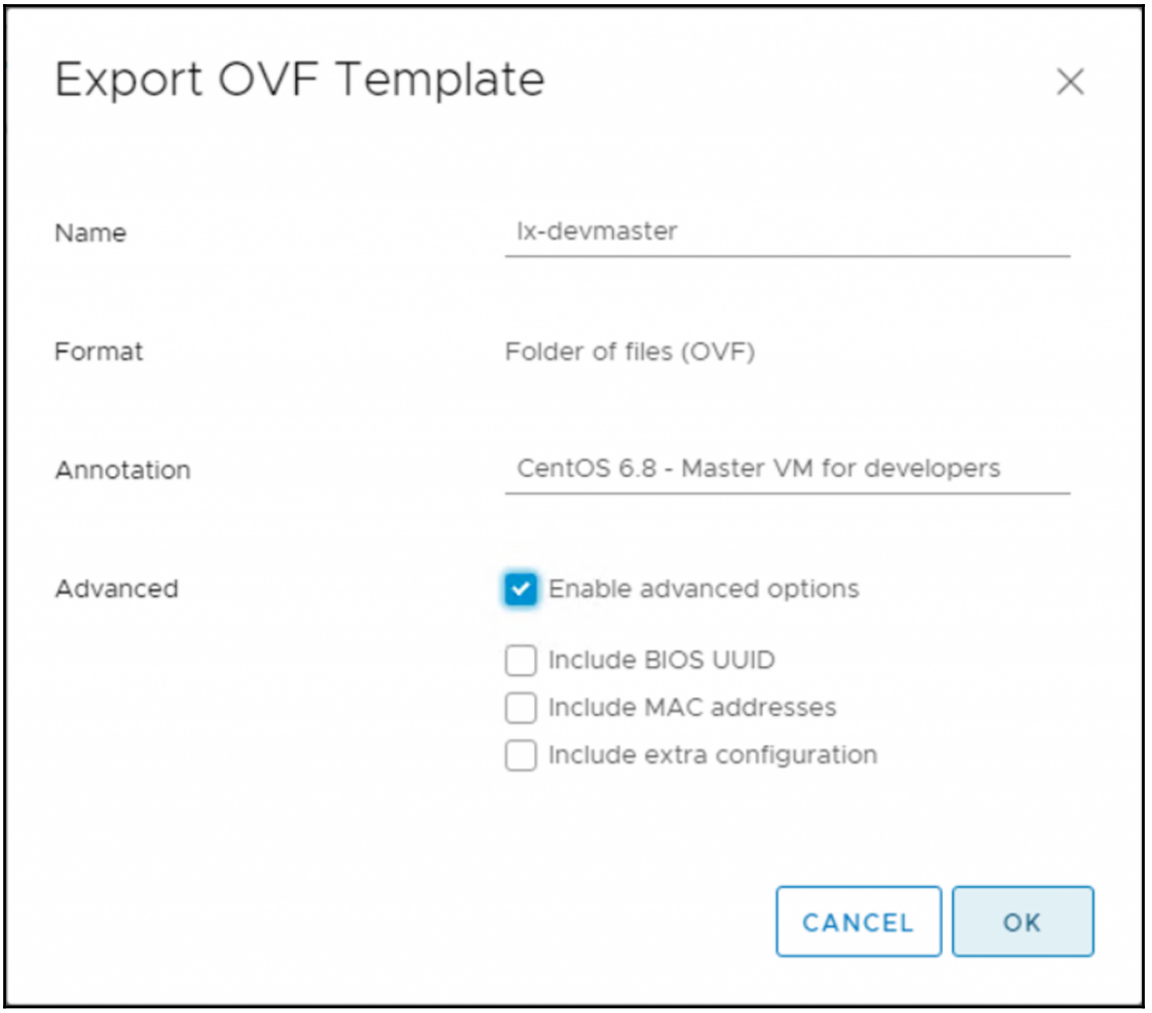

Edit Default VM Compatibility
cluster01
Select a default virtual machine compatibility:
Compatible with:
Use datacenter setting and host version
Use datacenter setting and host version
ESX/ESXi 3.5 and later
ESX/ESXi 4.0 and later
ESXi 5.0 and later
ESXi 5.1 and later
ESXi 5.5 and later
ESXi 6.0 and later
Workstation 12 and later
ESXi 6.5 and later
Default compatib
and host version.
CANCEL
OK

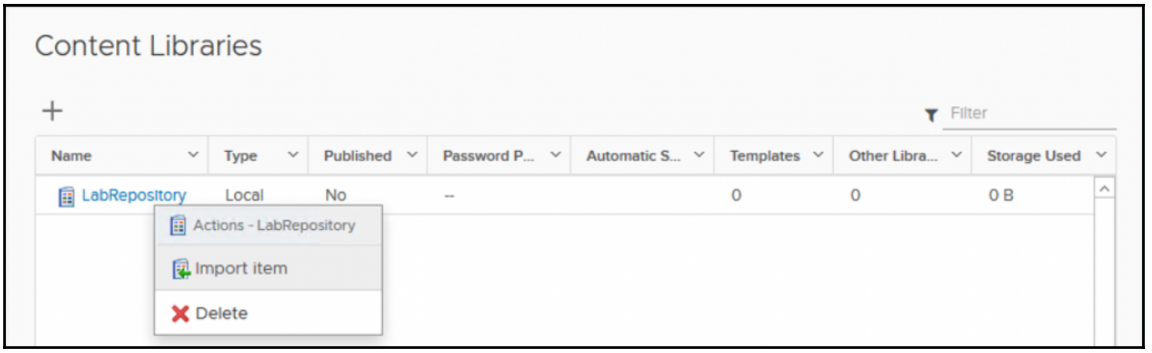

Edit Settings
w12r2-sqlstd01
CD/DVD drive 1
Client Device
Client Device
Host Device
Datastore ISO File
Content Library ISO File
Status
CD/DVD Media
and select the media from the VM
tab
Device Mode
Passthrough CD-ROM
Virtual Device Node
IDE 0
IDE(0:0) CD/DVD drive 1
Video card
4 MB
VMCI device
Device on the virtual machine PCI bus that provides support for the virtual machine communication interface
CANCEL
OK

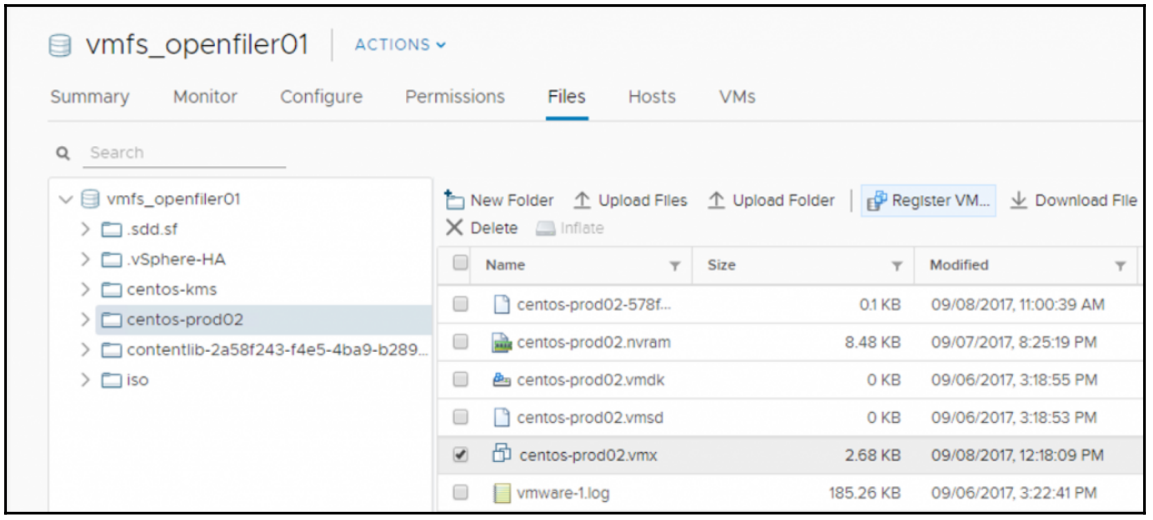

centos-prod01
ACTIONS
Summary
Monitor
Configure
Permissions
Datastores
Networks
Powered On
Launch Remote Console
Guest OS: CentOS 6 (64-bit)
Compatibility: ESXi 6.5 and later (VM version 13)
VMware Tools: Not running, not installed
More info...
DNS Name:
IP Addresses:
Host: esxi02.lab.local
CPU USAGE
0 Hz
MEMORY USAGE
1.5 GB
STORAGE USAGE
18.11 GB
VMware Tools is not installed on this virtual machine.
Install VMware Tools...

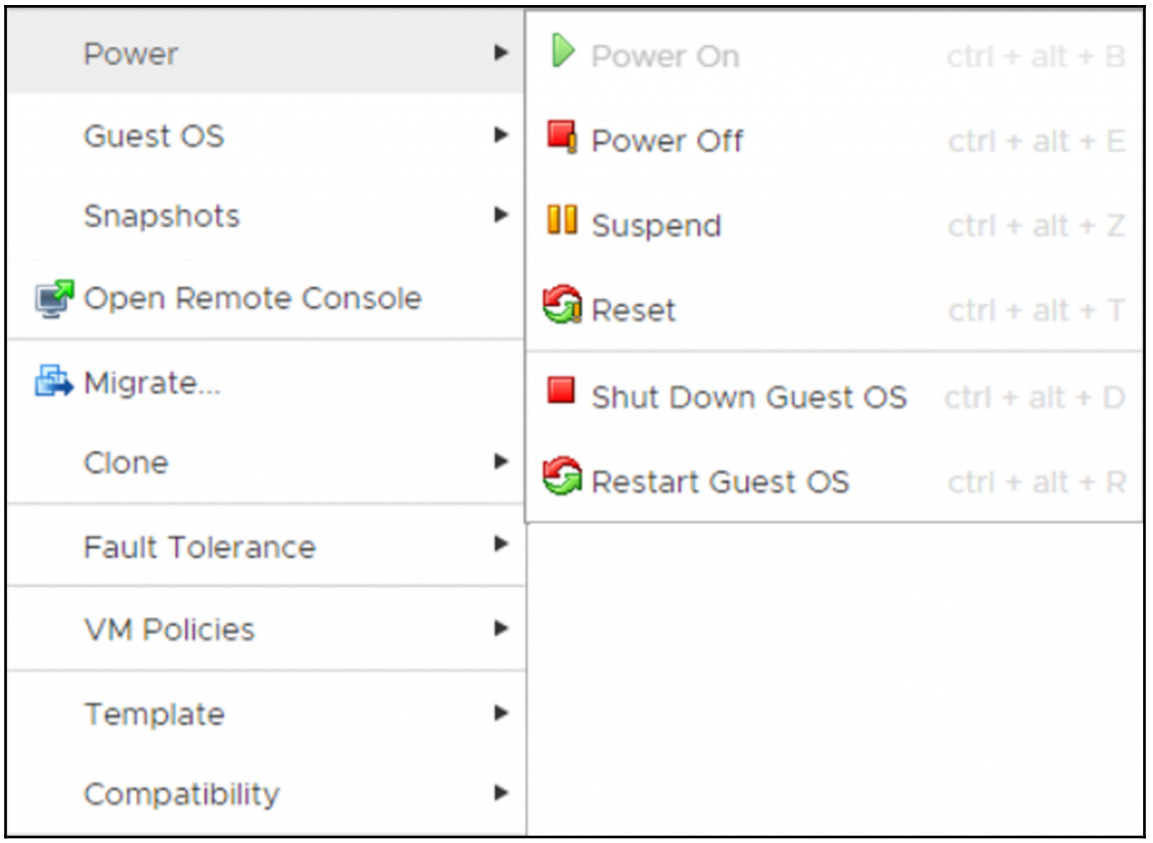

centos-template
ACTIONS
Summary
Monitor
Configure
Permissions
Datastores
vcsa65-vc01.lab.local
LAB
01 Templates
centos-template
Active Directory
Apps
Backup
Infrastructure
Guest OS: CentOS 6 (64-bit)
Compatibility: ESXi 6.5 and later (VM version 13)
Not running, not installed
More info...
esxi02.lab.local
STORAGE USAGE
16 GB
Actions - centos-template
New VM from This Template...
Convert to Virtual Machine...
Clone to Template...
Move to folder...
Rename...
Edit Notes...
Tags & Custom Attributes
Remove from Inventory
Delete from Disk
Notes
Edit Notes...
Description
Recent Tasks
Alarms

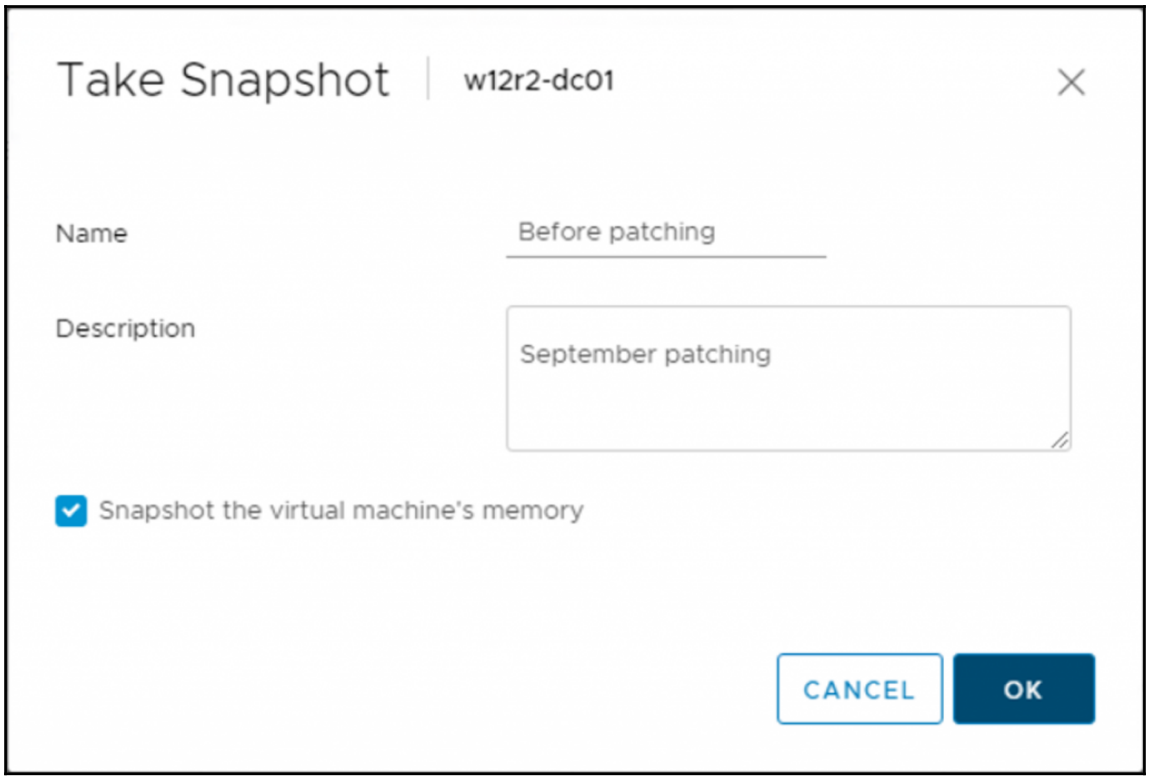

vmware vSphere Web Client
Administrator@VSPHERE.LOCAL
Help
Navigator
Actions
Back
Actions - cluster01
Add Host...
Move Hosts into Cluster...
New Virtual Machine
New vApp
New Resource Pool...
Deploy OVF Template...
Restore Resource Pool Tree...
Storage
Host Profiles
Edit Default VM Compatibility...
Assign License...
Settings
Move To...
Rename...
Confi...
Perm...
Hosts
VMs
Data...
Netw...
Upda...
vcsa65-vc01.lab.loc
LAB
cluster01
esxi01.lab
esxi02.lab
centos-km
centos-pr
vcsa65-ps
vcsa65-vc
vcsa65-vc
w12r2-dc0
w12r2-ser
w12r2-sql
ts. When you add a
resources
er's resources. The
urces of all hosts
re High Availability
ted Resource
vSAN solutions.
Cluster
Virtual
Datacente
vCenter Server


Export OVF Template
Name
lx-devmaster
Format
Folder of files (OVF)
Annotation
CentOS 6.8 - Master VM for developers
Advanced
Enable advanced options
Include BIOS UUID
Include MAC addresses
Include extra configuration
CANCEL
OK

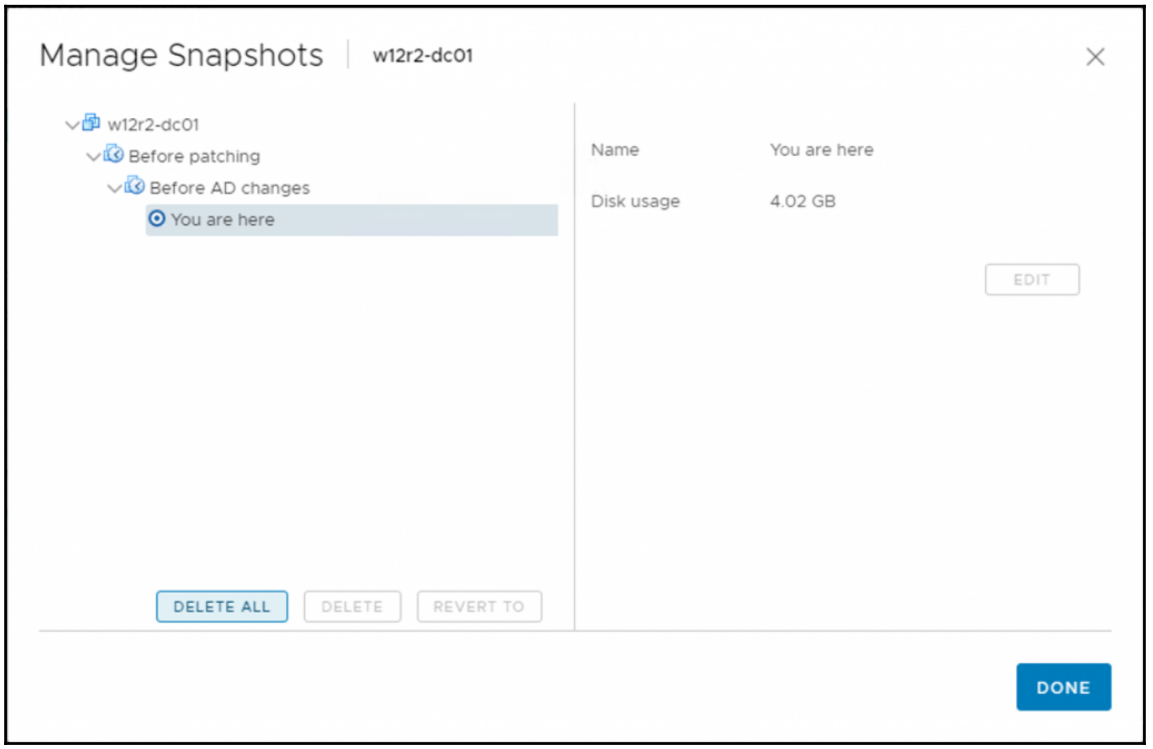

Content Libraries
Filter
Name
Type
Published
Password P...
Automatic S...
Templates
Other Libra...
Storage Used
LabRepository
Local
No
--
0
0
0 B
Actions - LabRepository
Import item
Delete

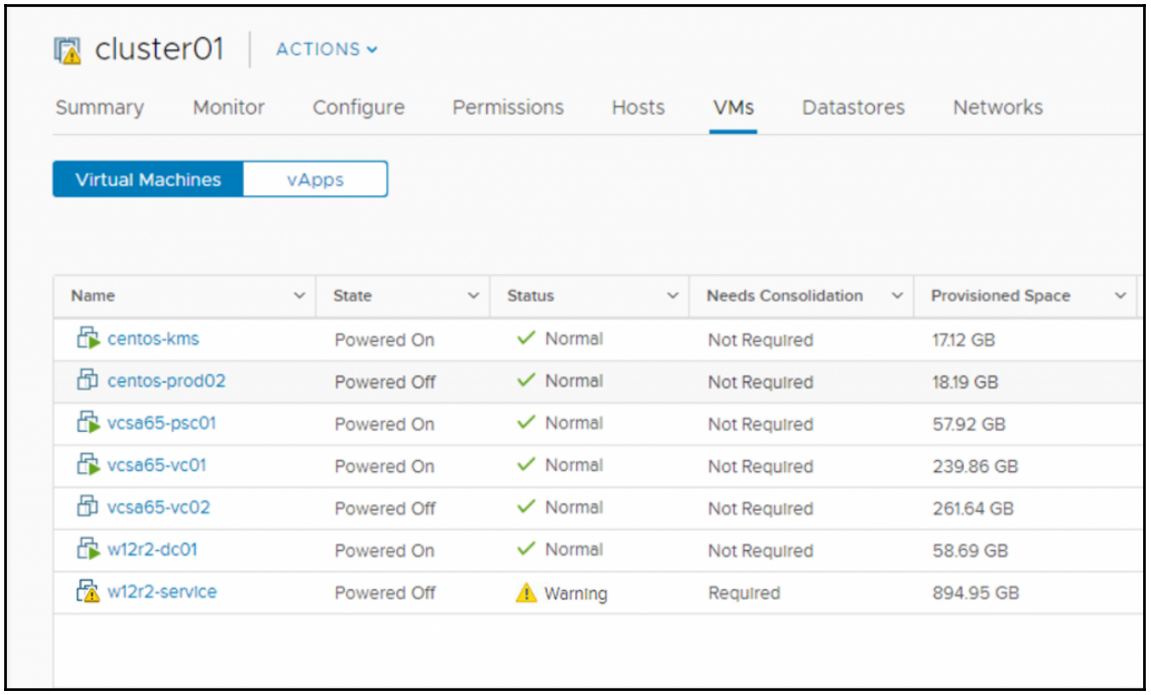

vmfs_openfiler01
ACTIONS
Summary
Monitor
Configure
Permissions
Files
Hosts
VMs
Search
vmfs_openfiler01
.sdd.sf
.vSphere-HA
centos-kms
centos-prod02
contentlib-2a58f243-f4e5-4ba9-b289...
iso
New Folder
Upload Files
Upload Folder
Register VM...
Download File
Delete
Inflate
Name
Size
Modified
centos-prod02-578f...
0.1 KB
09/08/2017, 11:00:39 AM
centos-prod02.nvram
8.48 KB
09/07/2017, 8:25:19 PM
centos-prod02.vmdk
0 KB
09/06/2017, 3:18:55 PM
centos-prod02.vmsd
0 KB
09/06/2017, 3:18:53 PM
centos-prod02.vmx
2.68 KB
09/08/2017, 12:18:09 PM
vmware-1.log
185.26 KB
09/06/2017, 3:22:41 PM

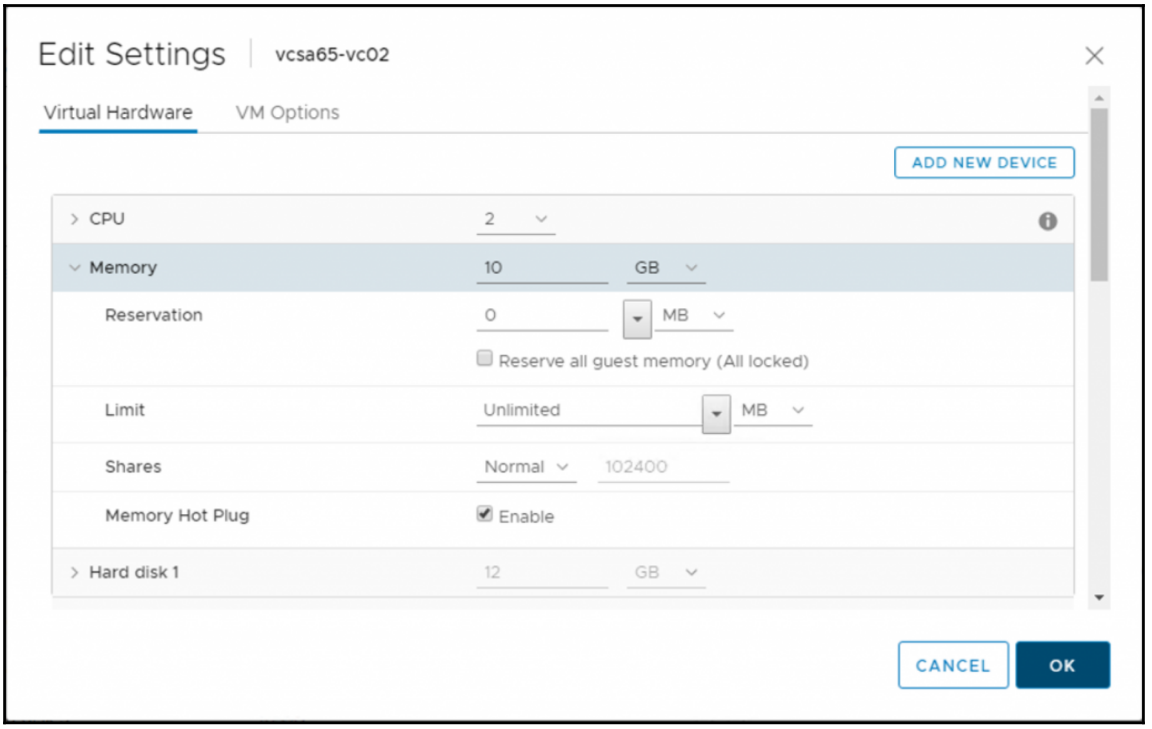

Power
Guest OS
Snapshots
Open Remote Console
Migrate...
Clone
Fault Tolerance
VM Policies
Template
Compatibility
Power On
ctrl + alt + B
Power Off
ctrl + alt + E
Suspend
ctrl + alt + Z
Reset
ctrl + alt + T
Shut Down Guest OS
ctrl + alt + D
Restart Guest OS
ctrl + alt + R

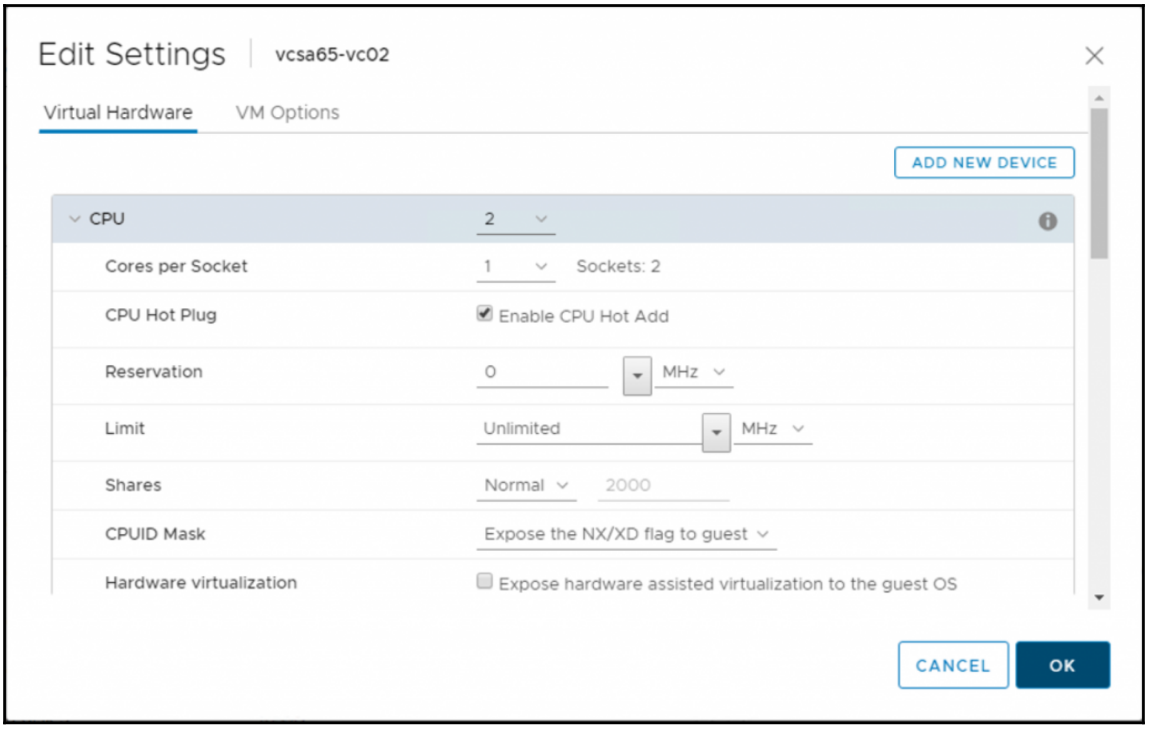

Take Snapshot
w12r2-dc01
Name
Before patching
Description
September patching
Snapshot the virtual machine's memory
CANCEL
OK

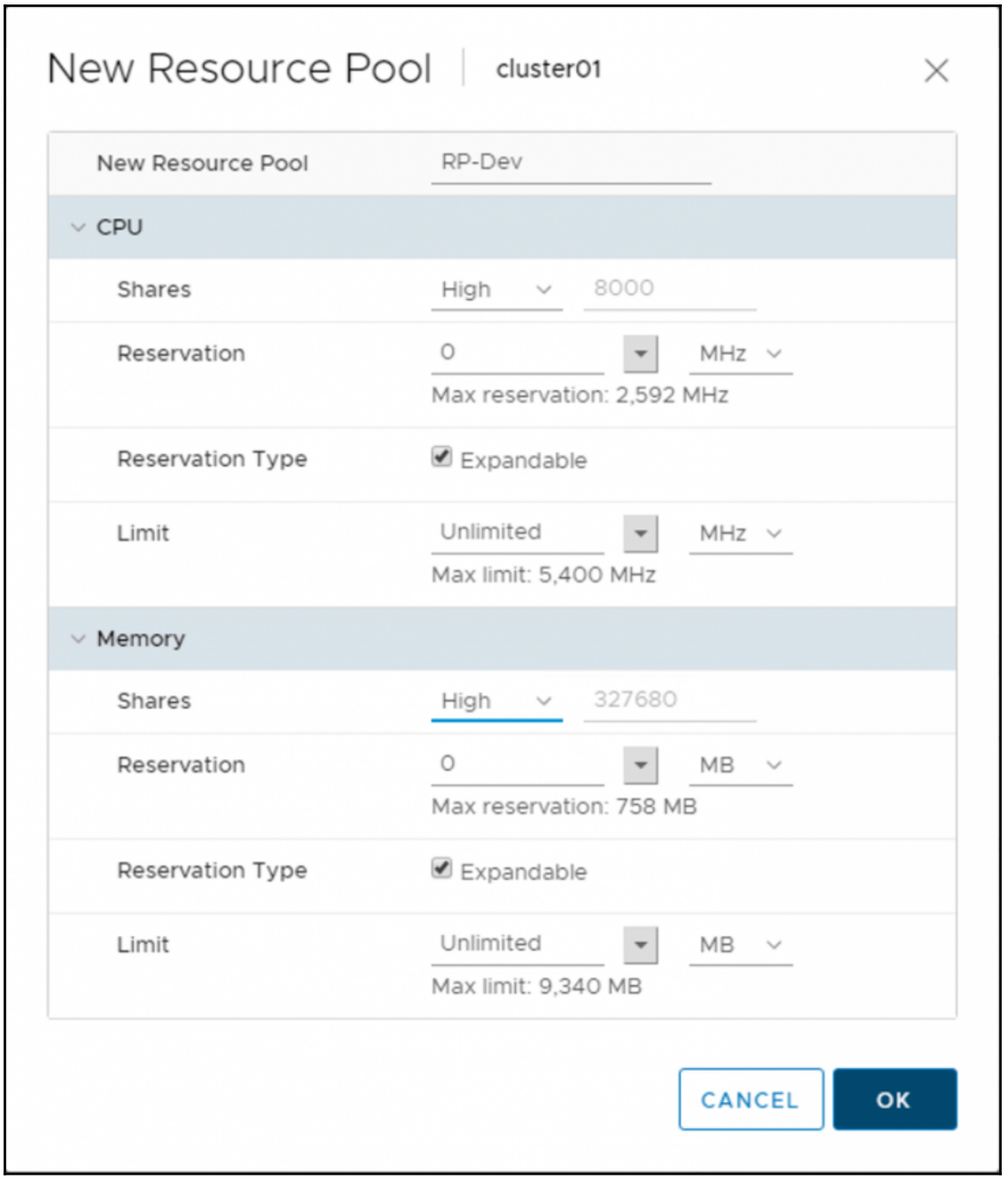
```
[root@esxi01:/vmfs/volumes/599ecc3b-a52c195f-15b4-000c296a6341/w12r2-dc01] ls -lh
total 30221376
-rw-r--r--    1 root     root      286.5K Sep 21 06:34 vmware.log
-rw-------    1 root     root      110.0M Sep  8 10:13 vmx-w12r2-dc01-2701646168-1.vswp
-rw-------    1 root     root      110.0M Sep 21 06:37 vmx-w12r2-dc01-2701646168-2.vswp
-rw-------    1 root     root        1.9G Sep 21 06:33 w12r2-dc01-000001-sesparse.vmdk
-rw-------    1 root     root         338 Sep 20 14:37 w12r2-dc01-000001.vmdk
-rw-------    1 root     root      140.0M Sep 21 06:44 w12r2-dc01-000002-sesparse.vmdk
-rw-------    1 root     root         345 Sep 21 06:33 w12r2-dc01-000002.vmdk
-rw-------    1 root     root        4.0G Sep 20 14:38 w12r2-dc01-Snapshot1.vmem
-rw-------    1 root     root        1.2M Sep 20 14:38 w12r2-dc01-Snapshot1.vmsn
-rw-------    1 root     root        4.0G Sep 21 06:34 w12r2-dc01-Snapshot2.vmem
-rw-------    1 root     root        1.2M Sep 21 06:34 w12r2-dc01-Snapshot2.vmsn
-rw-------    1 root     root        4.0G Sep 21 06:33 w12r2-dc01-a107d958.vswp
-rw-------    1 root     root       30.0G Sep 20 14:37 w12r2-dc01-flat.vmdk
-rw-------    1 root     root        8.5K Sep 21 06:34 w12r2-dc01.nvram
-rw-------    1 root     root         552 Sep 20 11:01 w12r2-dc01.vmdk
-rw-r--r--    1 root     root         834 Sep 21 06:35 w12r2-dc01.vmsd
-rwxr-xr-x    1 root     root        2.7K Sep 21 06:33 w12r2-dc01.vmx
-rw-------    1 root     root           0 Sep 20 11:01 w12r2-dc01.vmx.lck
-rw-------    1 root     root        3.1K Aug 24 20:36 w12r2-dc01.vmxf
-rwxr-xr-x    1 root     root        2.7K Sep 21 06:33 w12r2-dc01.vmx~
[root@esxi01:/vmfs/volumes/599ecc3b-a52c195f-15b4-000c296a6341/w12r2-dc01]
```

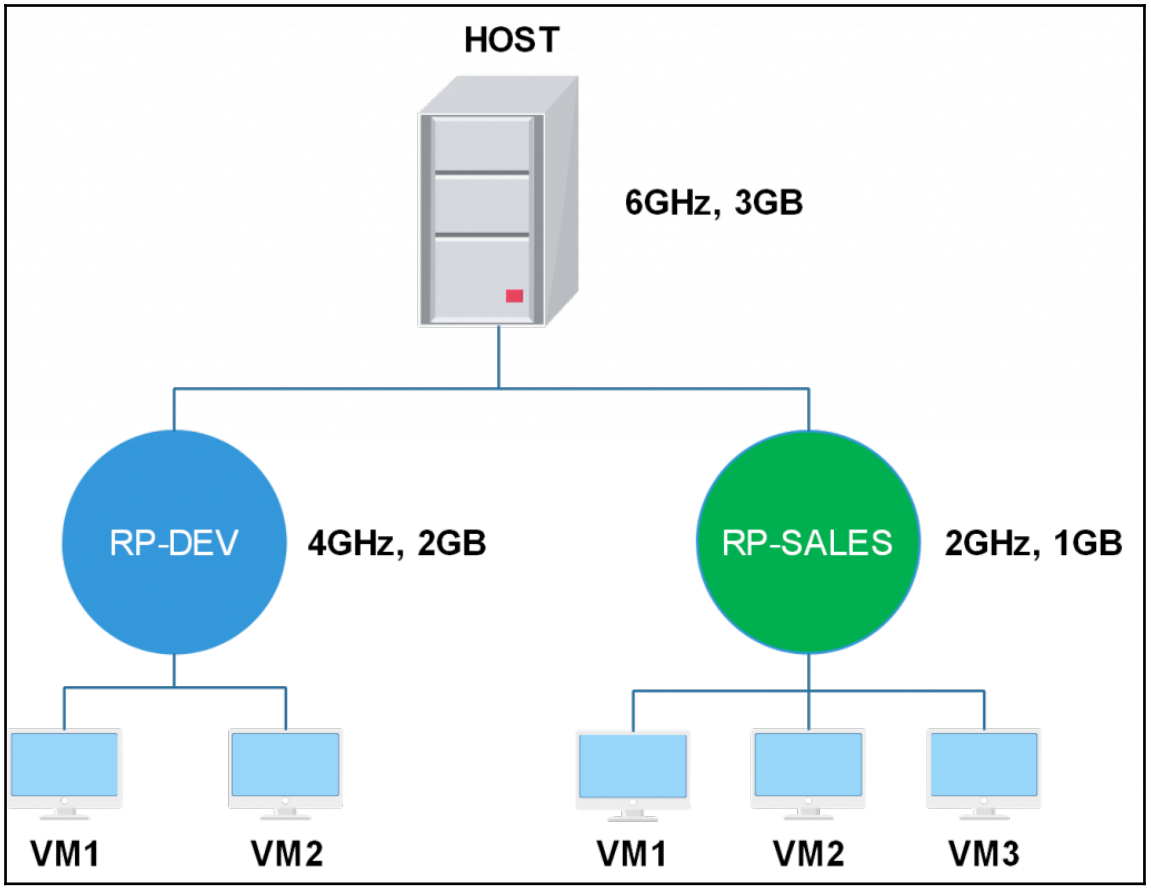


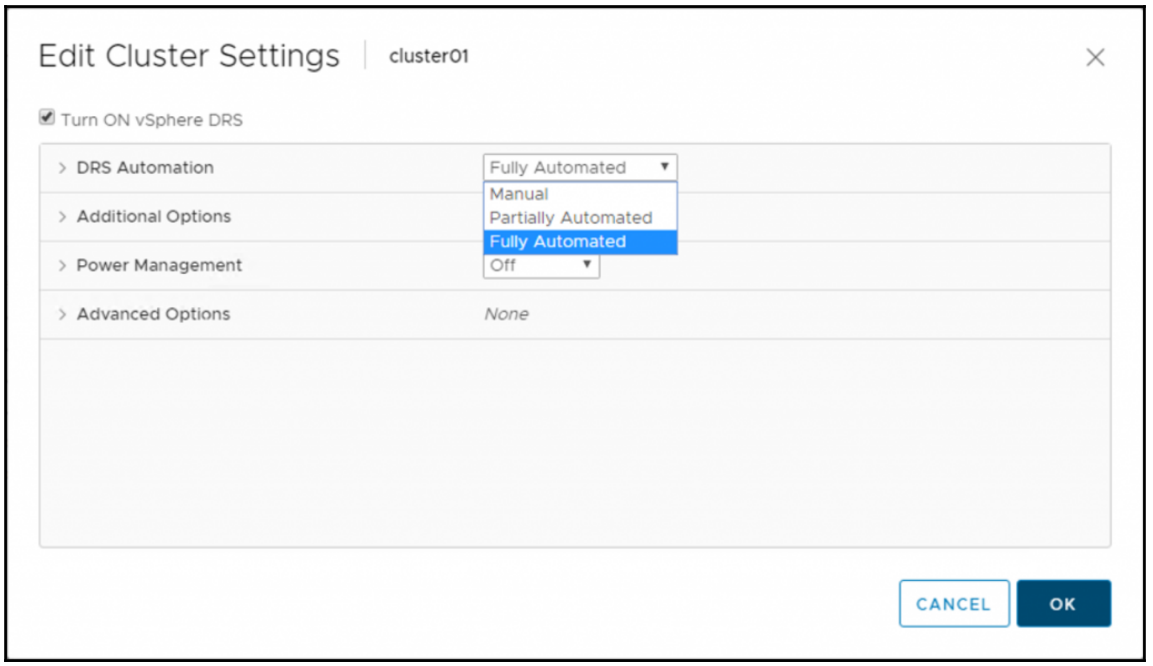

cluster01
ACTIONS
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Virtual Machines
vApps
Name
State
Status
Needs Consolidation
Provisioned Space
centos-kms
Powered On
Normal
Not Required
17.12 GB
centos-prod02
Powered Off
Normal
Not Required
18.19 GB
vcsa65-psc01
Powered On
Normal
Not Required
57.92 GB
vcsa65-vc01
Powered On
Normal
Not Required
239.86 GB
vcsa65-vc02
Powered Off
Normal
Not Required
261.64 GB
w12r2-dc01
Powered On
Normal
Not Required
58.69 GB
w12r2-service
Powered Off
Warning
Required
894.95 GB

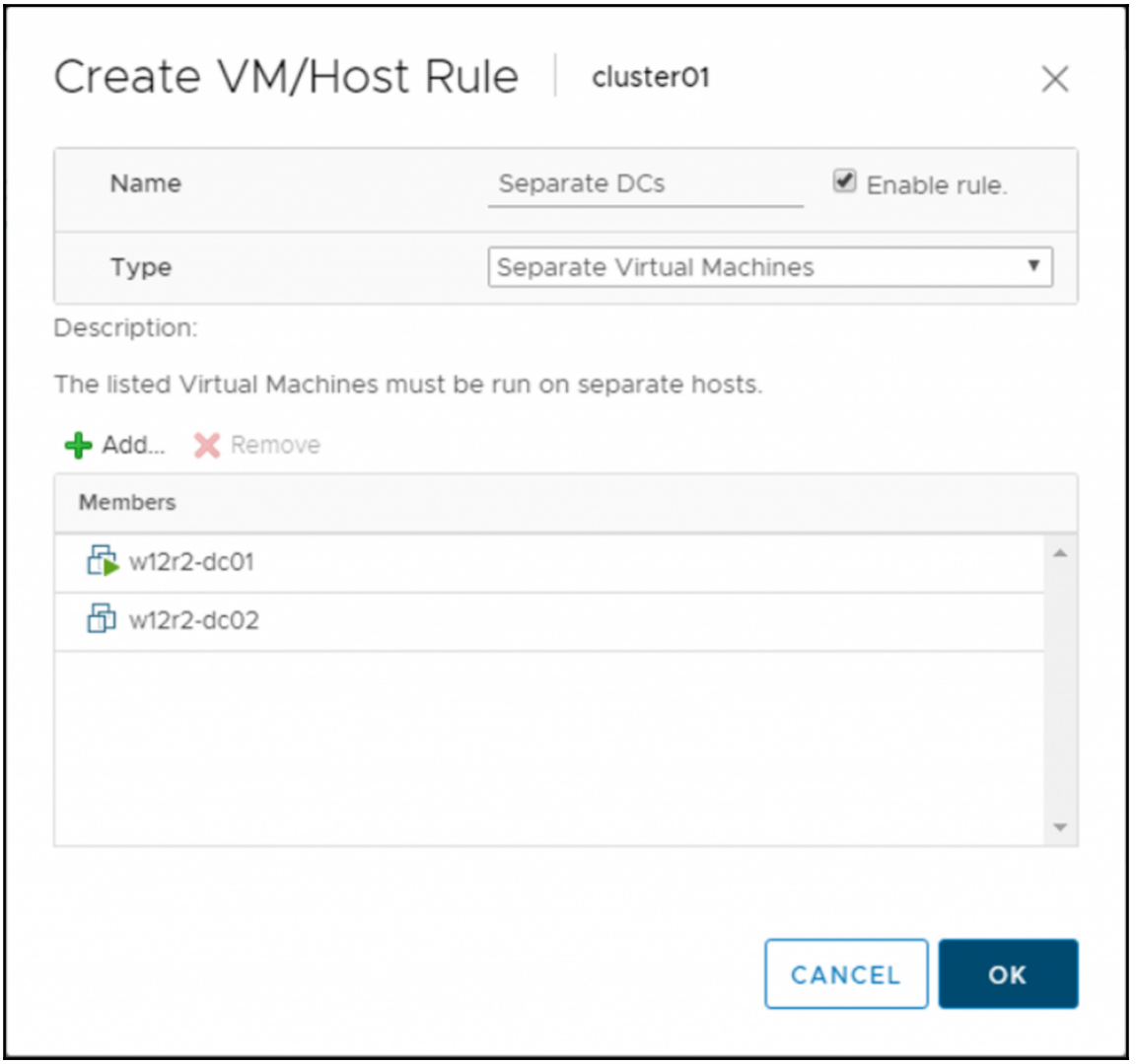

Edit Settings
vcsa65-vc02
Virtual Hardware
VM Options
ADD NEW DEVICE
CPU
2
Memory
10
GB
Reservation
0
MB
Reserve all guest memory (All locked)
Limit
Unlimited
MB
Shares
Normal
102400
Memory Hot Plug
Enable
Hard disk 1
12
GB
CANCEL
OK

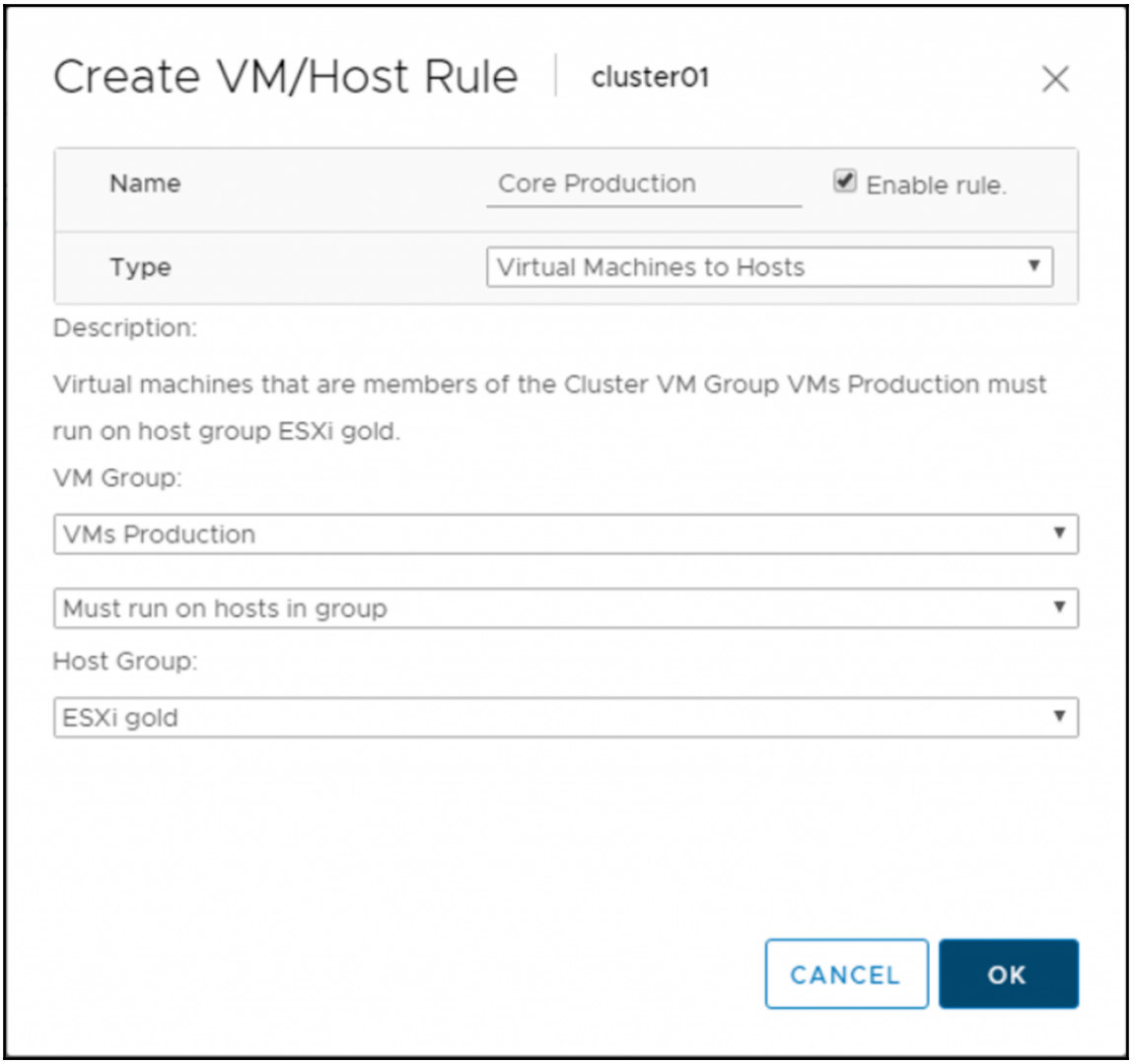

Edit Settings
vcsa65-vc02
Virtual Hardware
VM Options
ADD NEW DEVICE
CPU
2
Cores per Socket
1
Sockets: 2
CPU Hot Plug
Enable CPU Hot Add
Reservation
0
MHz
Limit
Unlimited
MHz
Shares
Normal
2000
CPUID Mask
Expose the NX/XD flag to guest
Hardware virtualization
Expose hardware assisted virtualization to the guest OS
CANCEL
OK

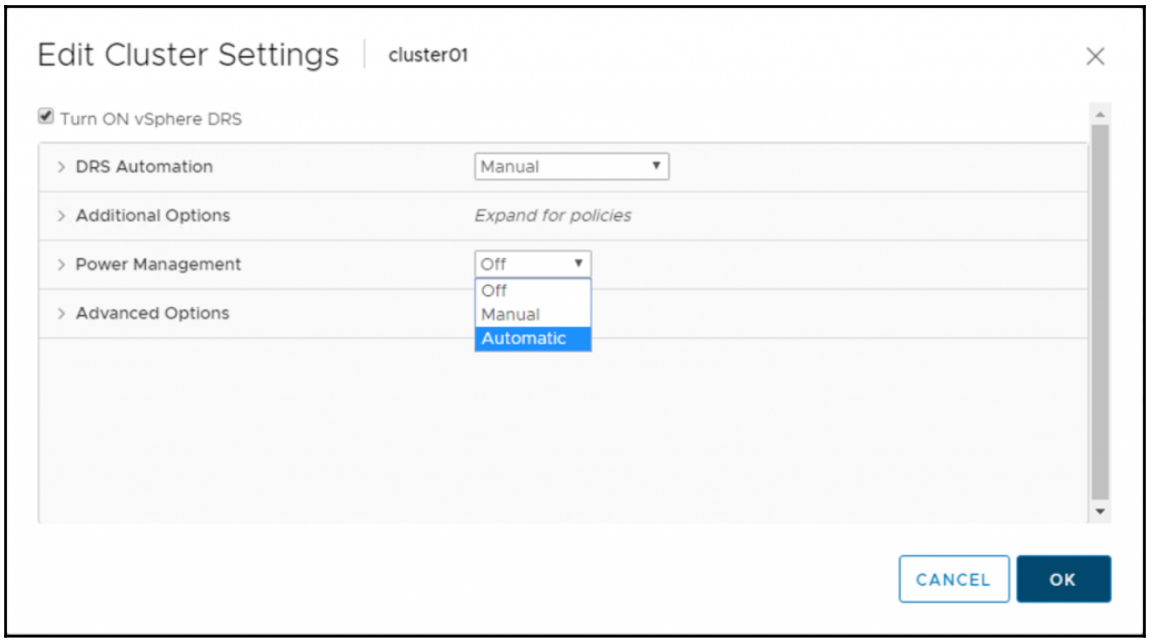

New Resource Pool
cluster01
New Resource Pool
RP-Dev
CPU
Shares
High
8000
Reservation
0
MHz
Max reservation: 2,592 MHz
Reservation Type
Expandable
Limit
Unlimited
MHz
Max limit: 5,400 MHz
Memory
Shares
High
327680
Reservation
0
MB
Max reservation: 758 MB
Reservation Type
Expandable
Limit
Unlimited
MB
Max limit: 9,340 MB
CANCEL
OK

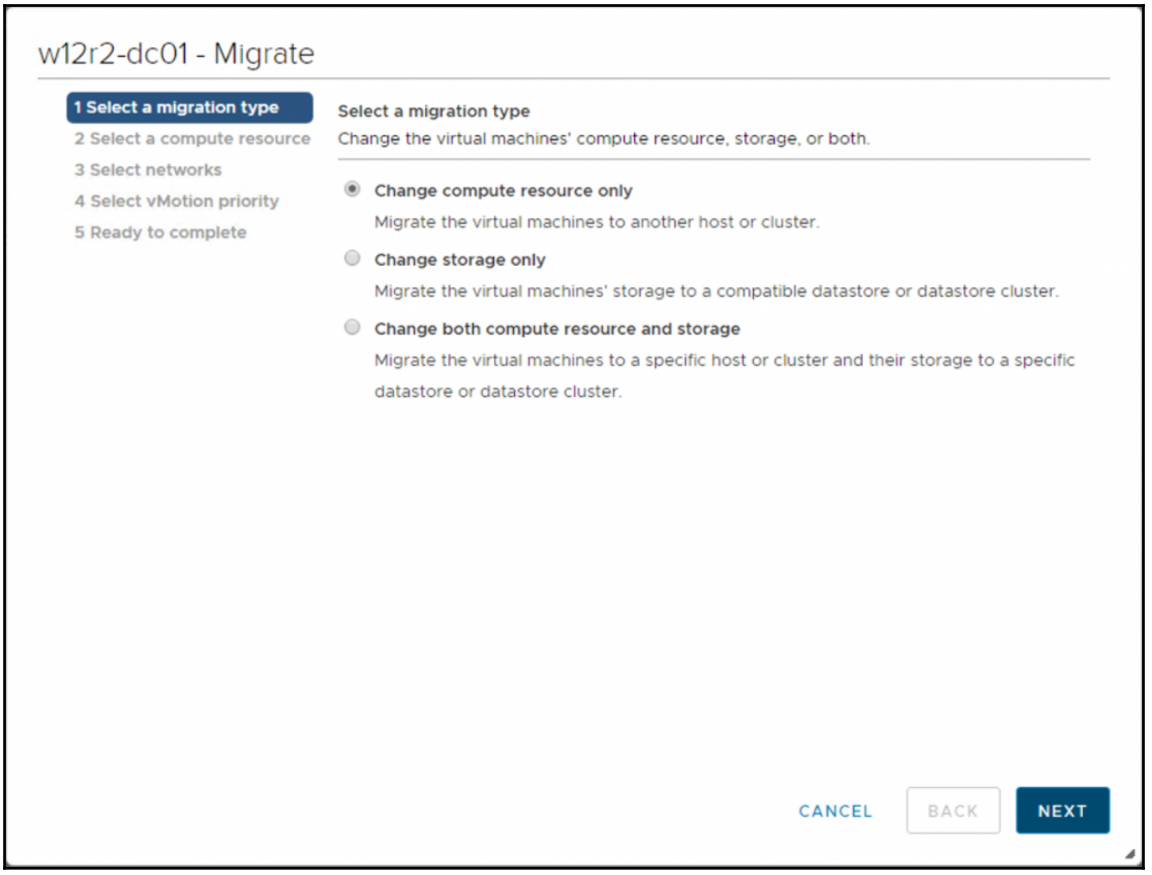

HOST
6GHz, 3GB
RP-DEV
4GHz, 2GB
RP-SALES
2GHz, 1GB
VM1
VM2
VM1
VM2
VM3


Edit Cluster Settings
cluster01
Turn ON vSphere DRS
DRS Automation
Fully Automated
Manual
Partially Automated
Fully Automated
Additional Options
Power Management
Off
Advanced Options
None
CANCEL
OK

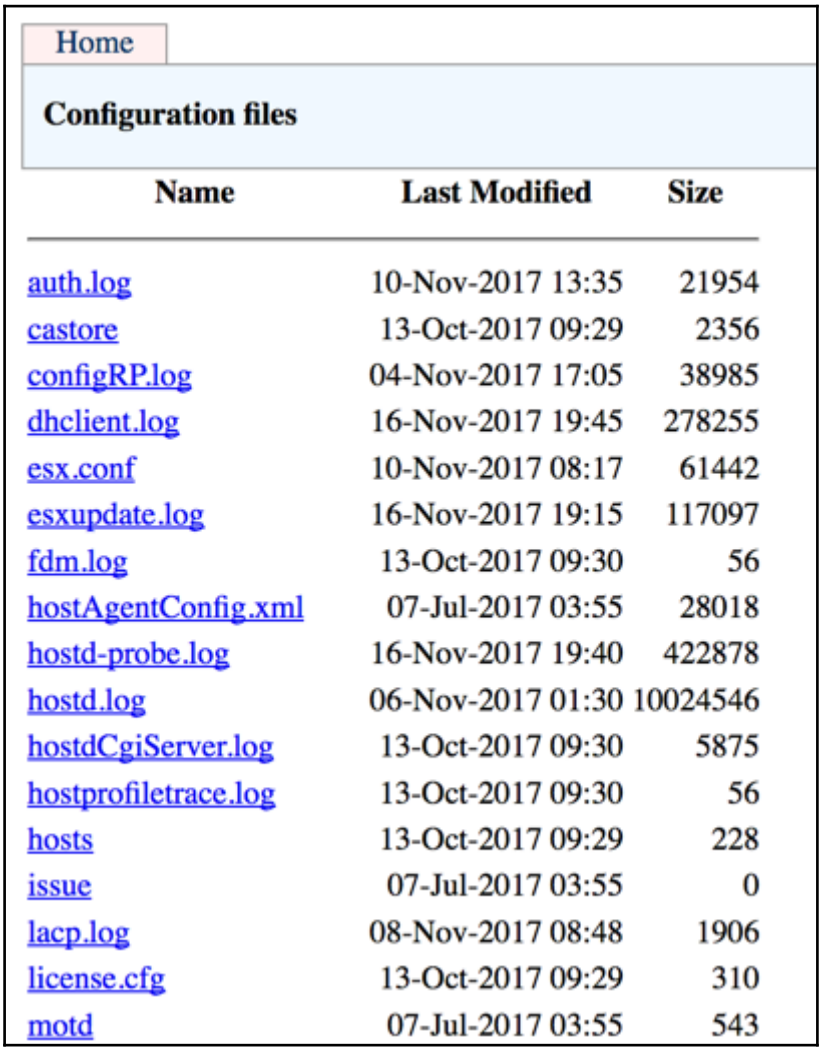

Create VM/Host Rule
cluster01
Name
Separate DCs
Enable rule.
Type
Separate Virtual Machines
Description:
The listed Virtual Machines must be run on separate hosts.
Add...
Remove
Members
w12r2-dc01
w12r2-dc02
CANCEL
OK


Create VM/Host Rule
cluster01
Name
Core Production
Enable rule.
Type
Virtual Machines to Hosts
Description:
Virtual machines that are members of the Cluster VM Group VMs Production must run on host group ESXi gold.
VM Group:
VMs Production
Must run on hosts in group
Host Group:
ESXi gold
CANCEL
OK


Edit Cluster Settings
cluster01
Turn ON vSphere DRS
DRS Automation
Manual
Additional Options
Expand for policies
Power Management
Off
Off
Manual
Automatic
Advanced Options
CANCEL
OK


w12r2-dc01 - Migrate
1 Select a migration type
2 Select a compute resource
3 Select networks
4 Select vMotion priority
5 Ready to complete
Select a migration type
Change the virtual machines' compute resource, storage, or both.
Change compute resource only
Migrate the virtual machines to another host or cluster.
Change storage only
Migrate the virtual machines' storage to a compatible datastore or datastore cluster.
Change both compute resource and storage
Migrate the virtual machines to a specific host or cluster and their storage to a specific datastore or datastore cluster.
CANCEL
BACK
NEXT

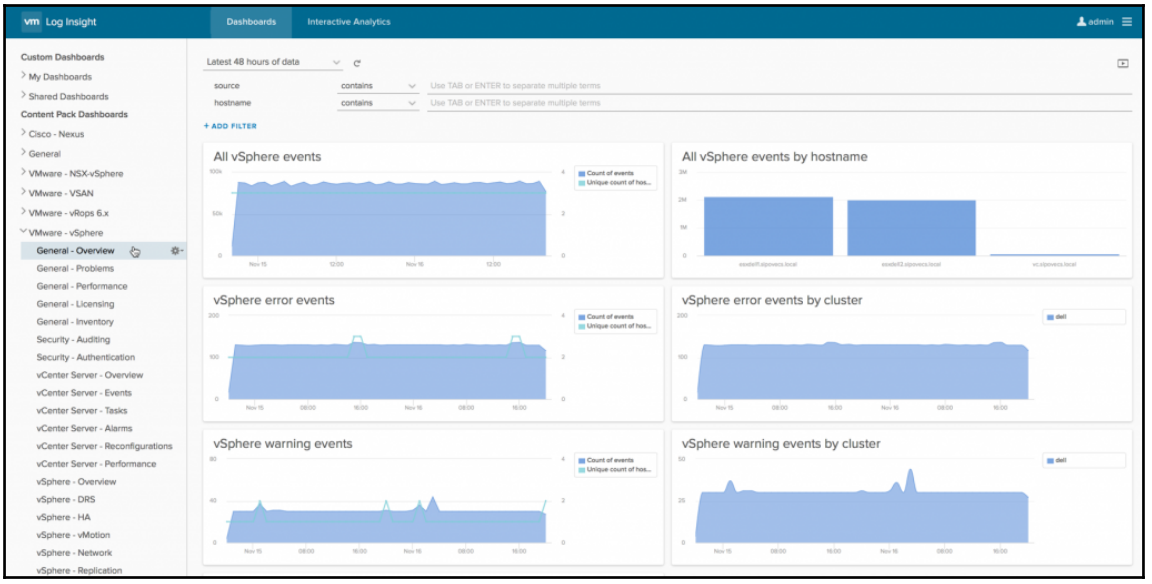
Chapter 9: Monitoring, Optimizing, and Troubleshooting

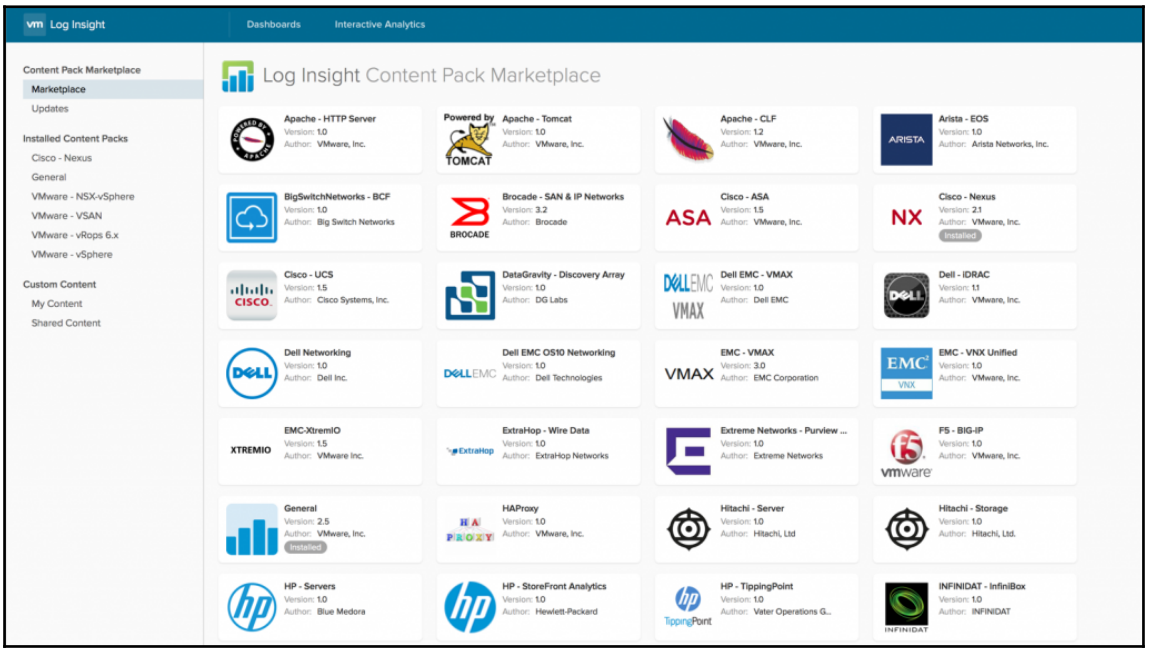


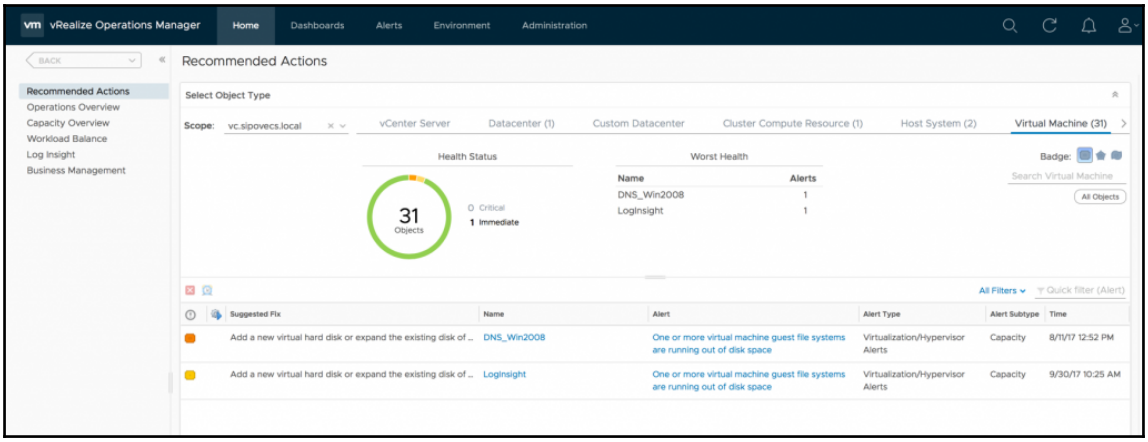
Home

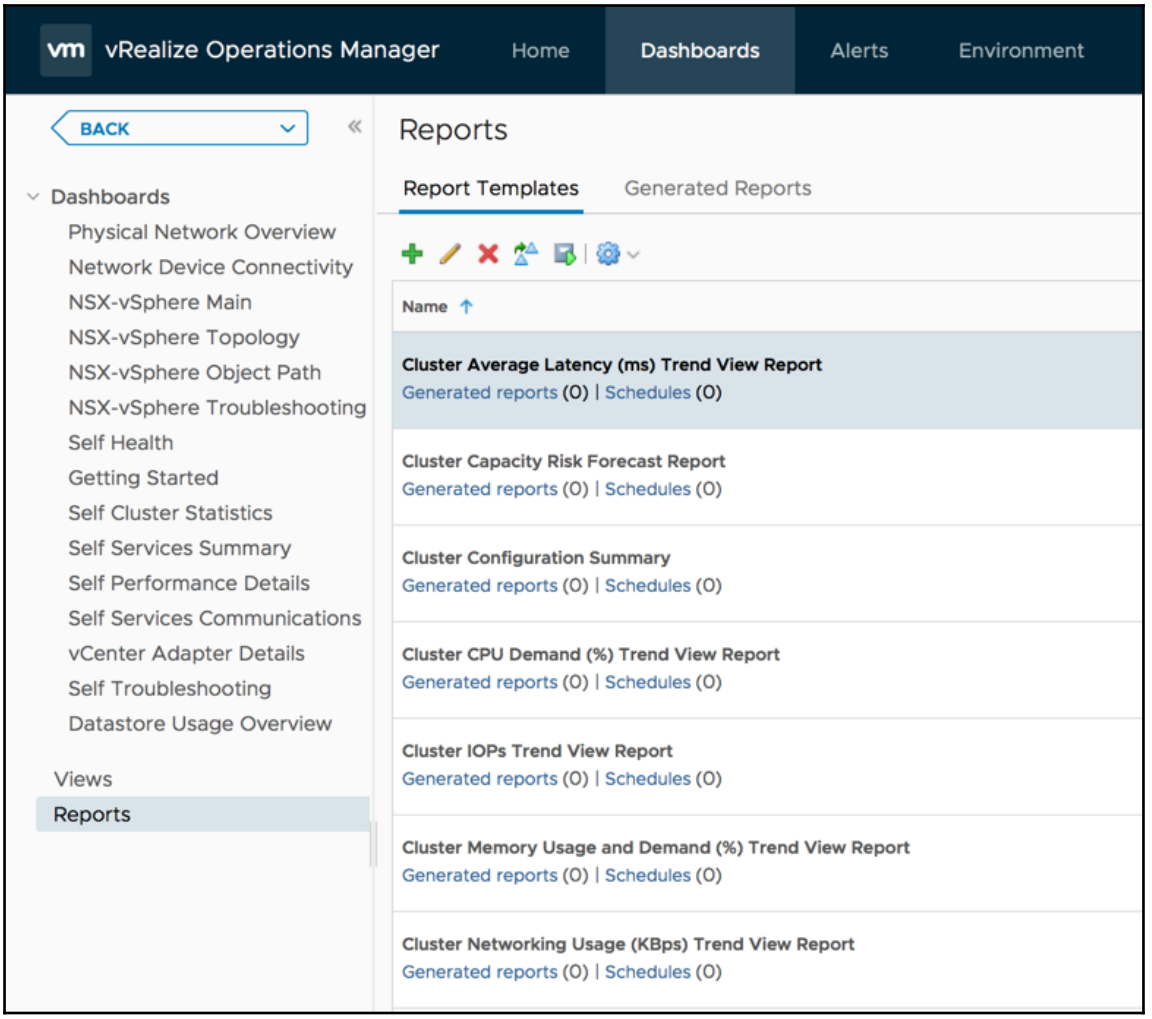
Configuration files

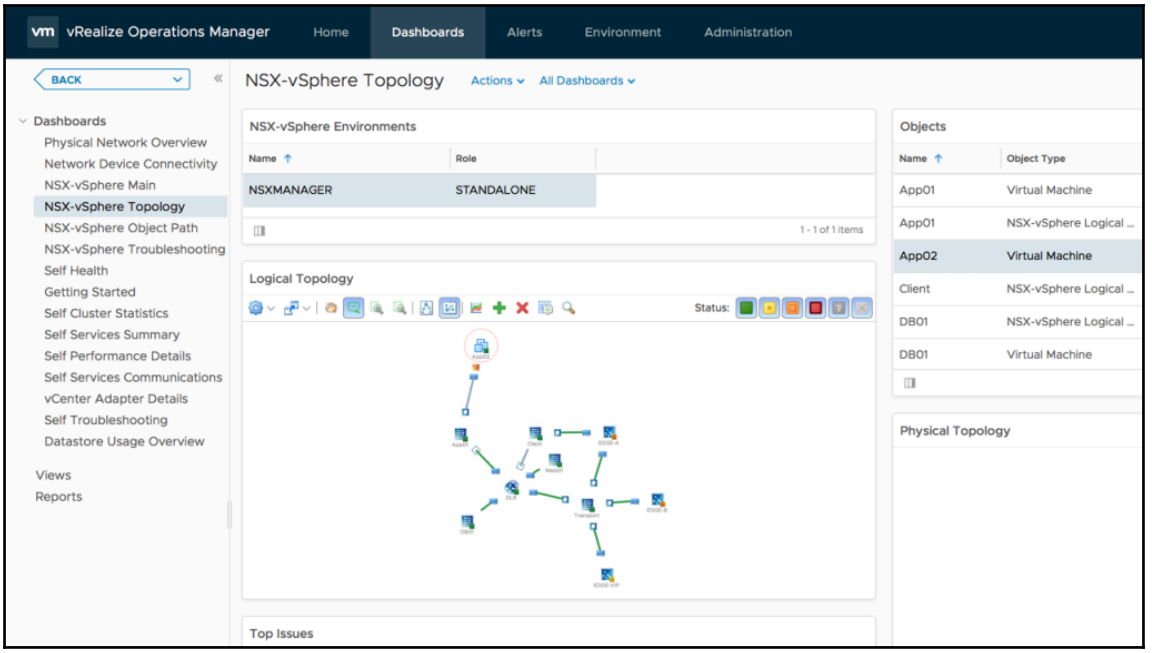
Name	Last Modified	Size
auth.log	10-Nov-2017 13:35	21954
castore	13-Oct-2017 09:29	2356
configRP.log	04-Nov-2017 17:05	38985
dhclient.log	16-Nov-2017 19:45	278255
esx.conf	10-Nov-2017 08:17	61442
esxupdate.log	16-Nov-2017 19:15	117097
fdm.log	13-Oct-2017 09:30	56
hostAgentConfig.xml	07-Jul-2017 03:55	28018
hostd-probe.log	16-Nov-2017 19:40	422878
hostd.log	06-Nov-2017 01:30	10024546
hostdCgiServer.log	13-Oct-2017 09:30	5875
hostprofiletrace.log	13-Oct-2017 09:30	56
hosts	13-Oct-2017 09:29	228
issue	07-Jul-2017 03:55	0
lacp.log	08-Nov-2017 08:48	1906
license.cfg	13-Oct-2017 09:29	310
motd	07-Jul-2017 03:55	543

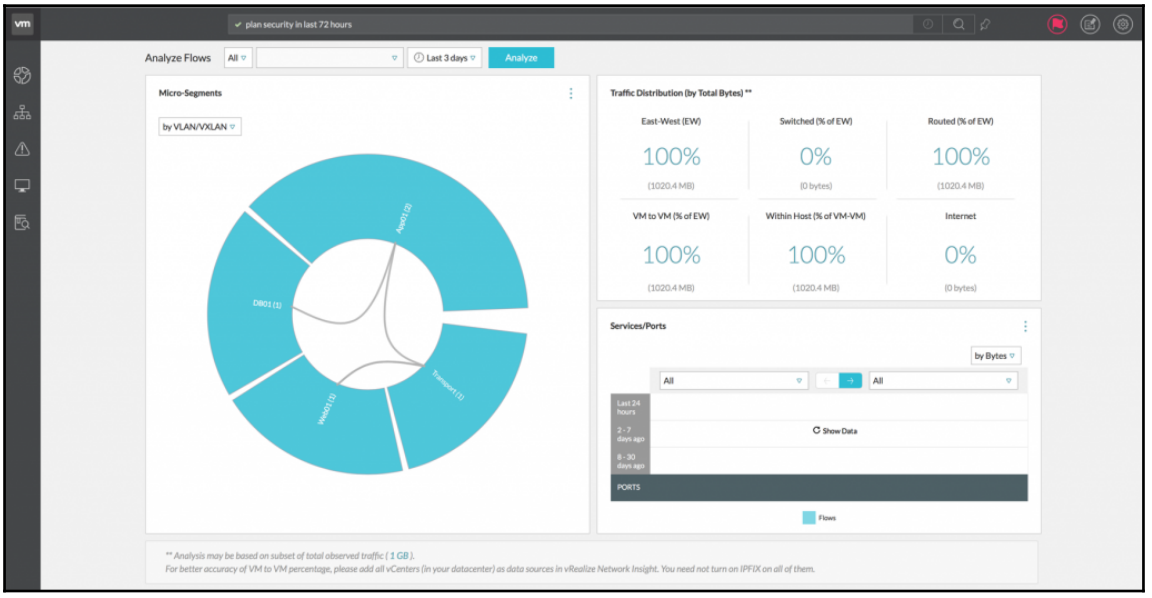

Log Insight
Dashboards
Interactive Analytics
admin
Custom Dashboards
My Dashboards
Shared Dashboards
Content Pack Dashboards
Cisco - Nexus
General
VMware - NSX-vSphere
VMware - VSAN
VMware - vRops 6.x
VMware - vSphere
General - Overview
General - Problems
General - Performance
General - Licensing
General - Inventory
Security - Auditing
Security - Authentication
vCenter Server - Overview
vCenter Server - Events
vCenter Server - Tasks
vCenter Server - Alarms
vCenter Server - Reconfigurations
vCenter Server - Performance
vSphere - Overview
vSphere - DRS
vSphere - HA
vSphere - vMotion
vSphere - Network
vSphere - Replication
Latest 48 hours of data
source
contains
hostname
contains
Use TAB or ENTER to separate multiple terms
+ ADD FILTER
All vSphere events
All vSphere events by hostname
vSphere error events
vSphere error events by cluster
vSphere warning events
vSphere warning events by cluster

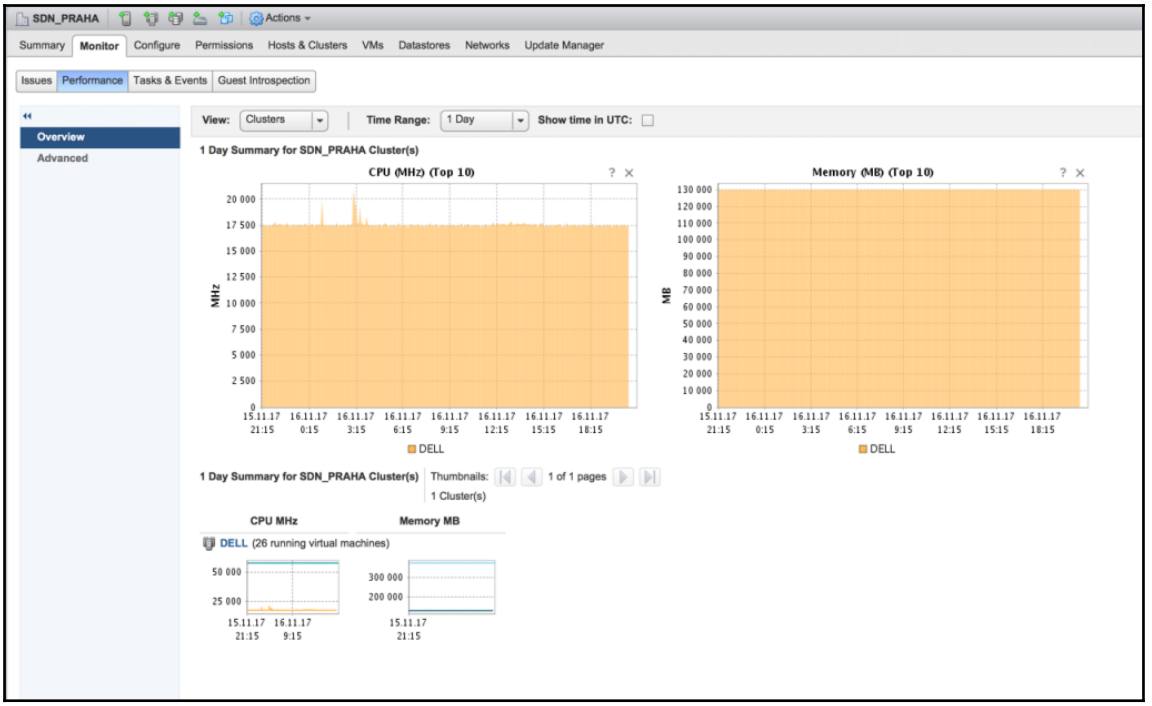

Log Insight
Dashboards
Interactive Analytics
Content Pack Marketplace
Marketplace
Updates
Installed Content Packs
Cisco - Nexus
General
VMware - NSX-vSphere
VMware - VSAN
VMware - vRops 6.x
VMware - vSphere
Custom Content
My Content
Shared Content
Log Insight Content Pack Marketplace
Apache - HTTP Server
Apache - Tomcat
Apache - CLF
Arista - EOS
BigSwitchNetworks - BCF
Brocade - SAN & IP Networks
Cisco - ASA
Cisco - Nexus
Cisco - UCS
DataGravity - Discovery Array
Dell EMC - VMAX
Dell - iDRAC
Dell Networking
Dell EMC OS10 Networking
EMC - VMAX
EMC - VNX Unified
EMC-XtremIO
ExtraHop - Wire Data
Extreme Networks - Purview ...
F5 - BIG-IP
General
HAProxy
Hitachi - Server
Hitachi - Storage
HP - Servers
HP - StoreFront Analytics
HP - TippingPoint
INFINIDAT - InfiniBox

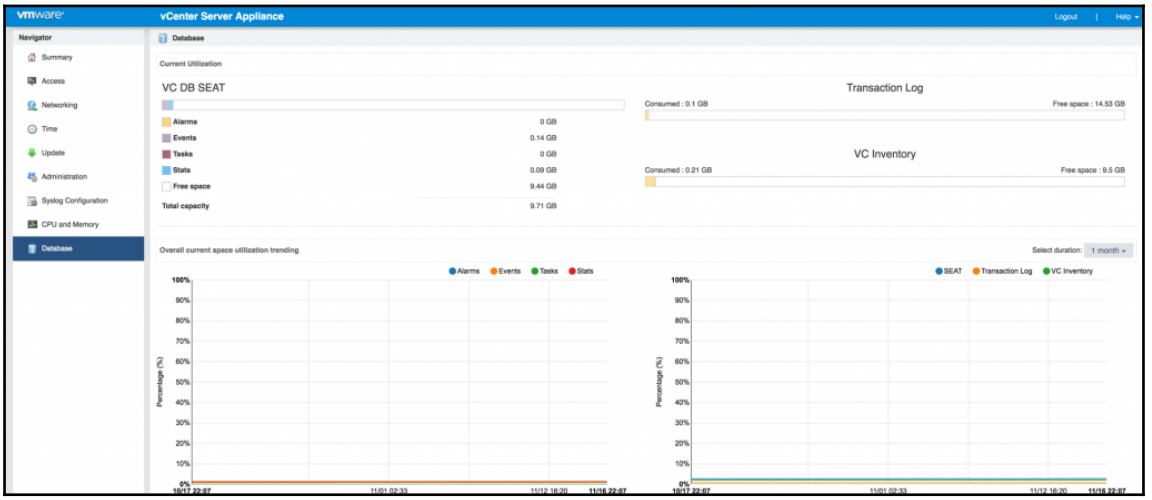

vRealize Operations Manager
Home
Dashboards
Alerts
Environment
Administration
BACK
Recommended Actions
Operations Overview
Capacity Overview
Workload Balance
Log Insight
Business Management
Recommended Actions
Select Object Type
Scope:
vc.sipovecs.local
vCenter Server
Datacenter (1)
Custom Datacenter
Cluster Compute Resource (1)
Host System (2)
Virtual Machine (31)
Health Status
31
Objects
0 Critical
1 Immediate
Worst Health
Name
Alerts
DNS_Win2008
1
LogInsight
1
Badge:
Search Virtual Machine
All Objects
All Filters
Quick filter (Alert)
Suggested Fix
Name
Alert
Alert Type
Alert Subtype
Time
Add a new virtual hard disk or expand the existing disk of ...
DNS_Win2008
One or more virtual machine guest file systems are running out of disk space
Virtualization/Hypervisor Alerts
Capacity
8/11/17 12:52 PM
Add a new virtual hard disk or expand the existing disk of ...
LogInsight
One or more virtual machine guest file systems are running out of disk space
Virtualization/Hypervisor Alerts
Capacity
9/30/17 10:25 AM

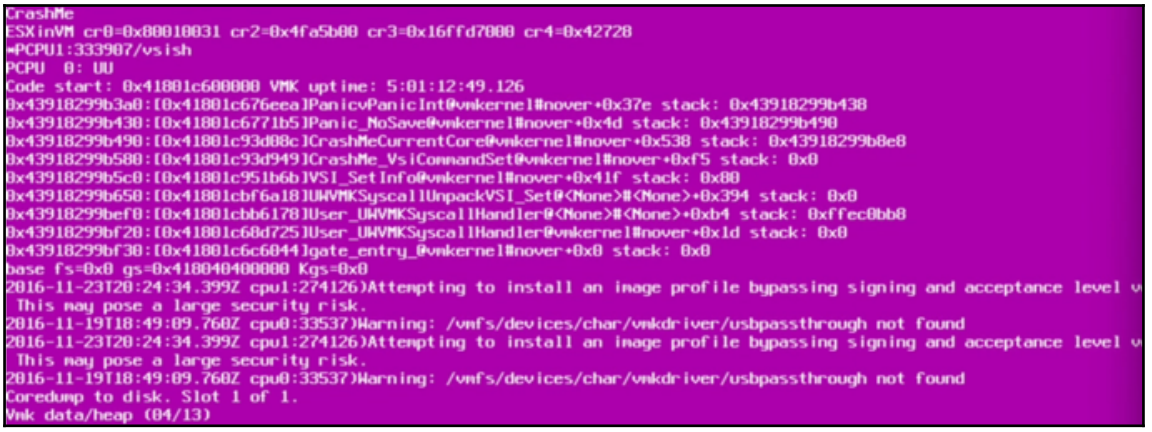

vRealize Operations Manager
Home
Dashboards
Alerts
Environment
BACK
Dashboards
Physical Network Overview
Network Device Connectivity
NSX-vSphere Main
NSX-vSphere Topology
NSX-vSphere Object Path
NSX-vSphere Troubleshooting
Self Health
Getting Started
Self Cluster Statistics
Self Services Summary
Self Performance Details
Self Services Communications
vCenter Adapter Details
Self Troubleshooting
Datastore Usage Overview
Views
Reports
Reports
Report Templates
Generated Reports
Name
Cluster Average Latency (ms) Trend View Report
Generated reports (0) | Schedules (0)
Cluster Capacity Risk Forecast Report
Generated reports (0) | Schedules (0)
Cluster Configuration Summary
Generated reports (0) | Schedules (0)
Cluster CPU Demand (%) Trend View Report
Generated reports (0) | Schedules (0)
Cluster IOPs Trend View Report
Generated reports (0) | Schedules (0)
Cluster Memory Usage and Demand (%) Trend View Report
Generated reports (0) | Schedules (0)
Cluster Networking Usage (KBps) Trend View Report
Generated reports (0) | Schedules (0)

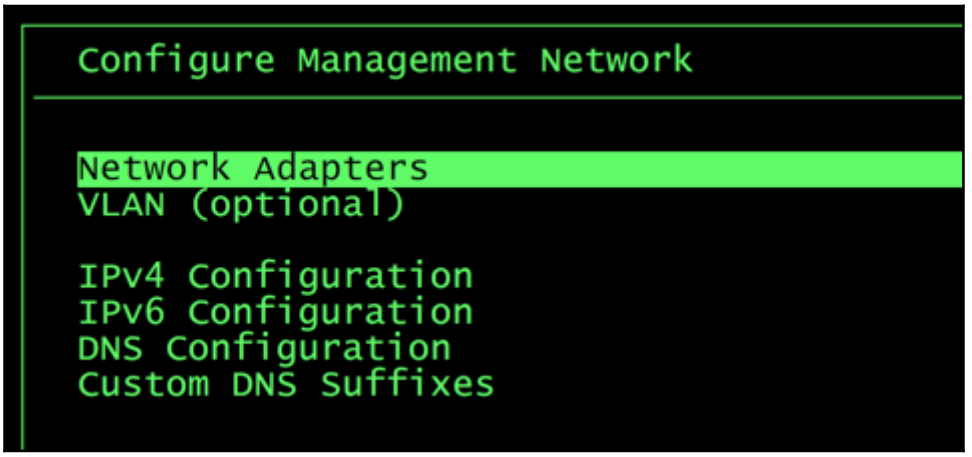

vRealize Operations Manager
Home
Dashboards
Alerts
Environment
Administration
BACK
Dashboards
Physical Network Overview
Network Device Connectivity
NSX-vSphere Main
NSX-vSphere Topology
NSX-vSphere Object Path
NSX-vSphere Troubleshooting
Self Health
Getting Started
Self Cluster Statistics
Self Services Summary
Self Performance Details
Self Services Communications
vCenter Adapter Details
Self Troubleshooting
Datastore Usage Overview
Views
Reports
NSX-vSphere Topology
Actions
All Dashboards
NSX-vSphere Environments
Name
Role
NSXMANAGER
STANDALONE
1 - 1 of 1 items
Logical Topology
Status:
Top Issues
Objects
Name
Object Type
App01
Virtual Machine
App01
NSX-vSphere Logical ...
App02
Virtual Machine
Client
NSX-vSphere Logical ...
DB01
NSX-vSphere Logical ...
DB01
Virtual Machine
Physical Topology


plan security in last 72 hours
Analyze Flows
All
Last 3 days
Analyze
Micro-Segments
by VLAN/VXLAN
App01 (2)
DB01 (1)
Web01 (1)
Transport (1)
Traffic Distribution (by Total Bytes) **
East-West (EW)
100%
(1020.4 MB)
Switched (% of EW)
0%
(0 bytes)
Routed (% of EW)
100%
(1020.4 MB)
VM to VM (% of EW)
100%
(1020.4 MB)
Within Host (% of VM-VM)
100%
(1020.4 MB)
Internet
0%
(0 bytes)
Services/Ports
by Bytes
All
All
Last 24 hours
2 - 7 days ago
8 - 30 days ago
Show Data
PORTS
Flows
** Analysis may be based on subset of total observed traffic (1 GB).
For better accuracy of VM to VM percentage, please add all vCenters (in your datacenter) as data sources in vRealize Network Insight. You need not turn on IPFIX on all of them.

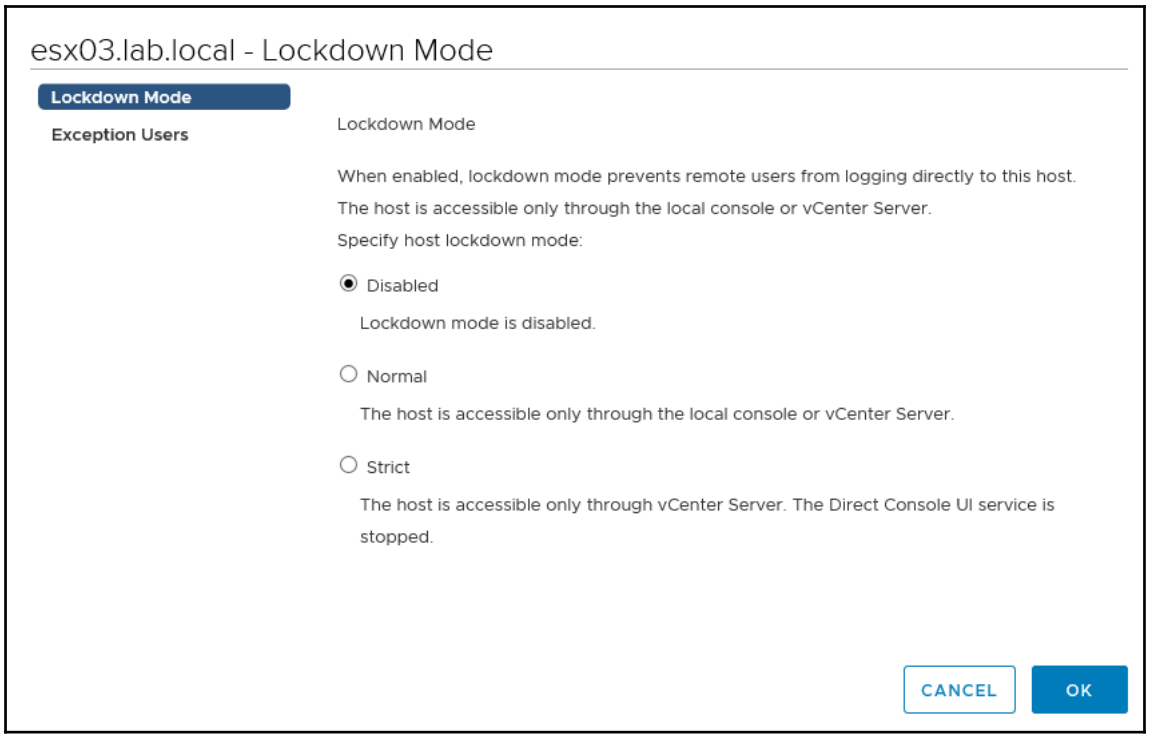

SDN_PRAHA
Actions
Summary
Monitor
Configure
Permissions
Hosts & Clusters
VMs
Datastores
Networks
Update Manager
Issues
Performance
Tasks & Events
Guest Introspection
Overview
Advanced
View:
Clusters
Time Range:
1 Day
Show time in UTC:
1 Day Summary for SDN_PRAHA Cluster(s)
CPU (MHz) (Top 10)
MHz
Memory (MB) (Top 10)
MB
DELL
1 Day Summary for SDN_PRAHA Cluster(s)
Thumbnails:
1 of 1 pages
1 Cluster(s)
CPU MHz
Memory MB
DELL (26 running virtual machines)

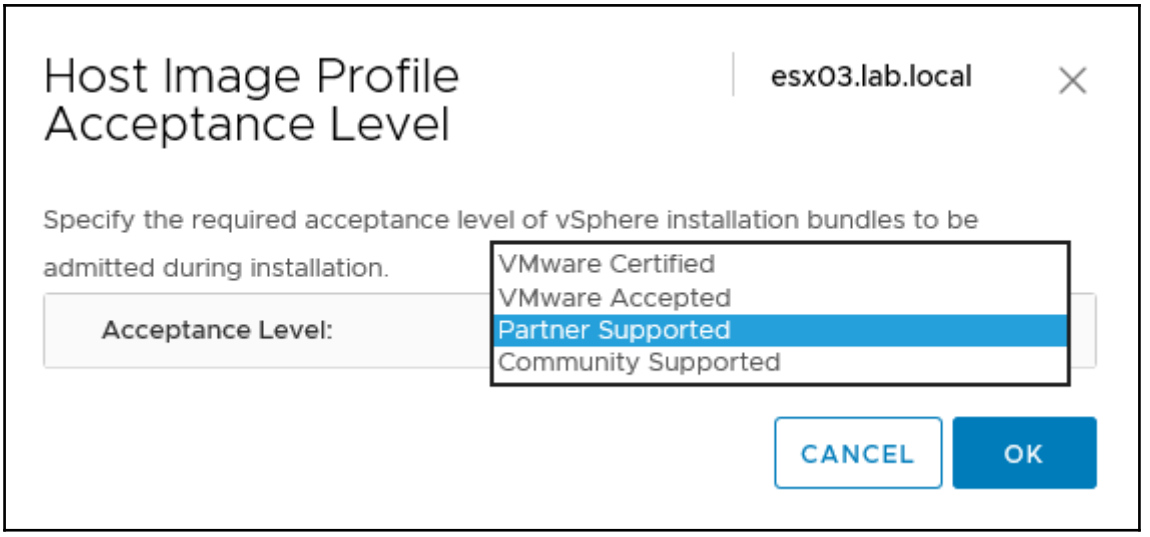

vmware
vCenter Server Appliance
Logout
Help
Navigator
Summary
Access
Networking
Time
Update
Administration
Syslog Configuration
CPU and Memory
Database
Database
Current Utilization
VC DB SEAT
Alarms 0 GB
Events 0.14 GB
Tasks 0 GB
Stats 0.09 GB
Free space 9.44 GB
Total capacity 9.71 GB
Transaction Log
Consumed : 0.1 GB
Free space : 14.53 GB
VC Inventory
Consumed : 0.21 GB
Free space : 9.5 GB
Overall current space utilization trending
Select duration: 1 month
Alarms
Events
Tasks
Stats
SEAT
Transaction Log
VC Inventory
Percentage (%)

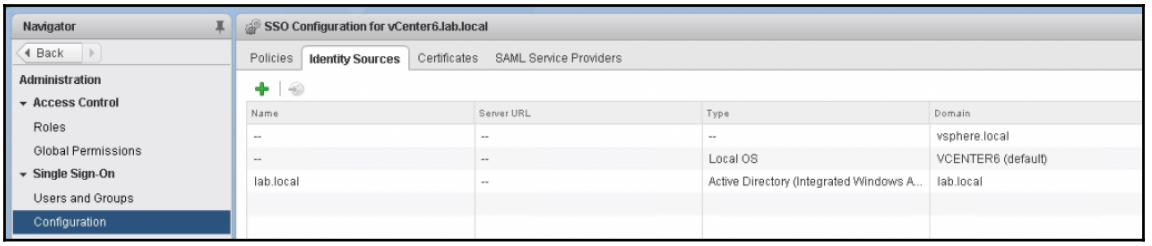


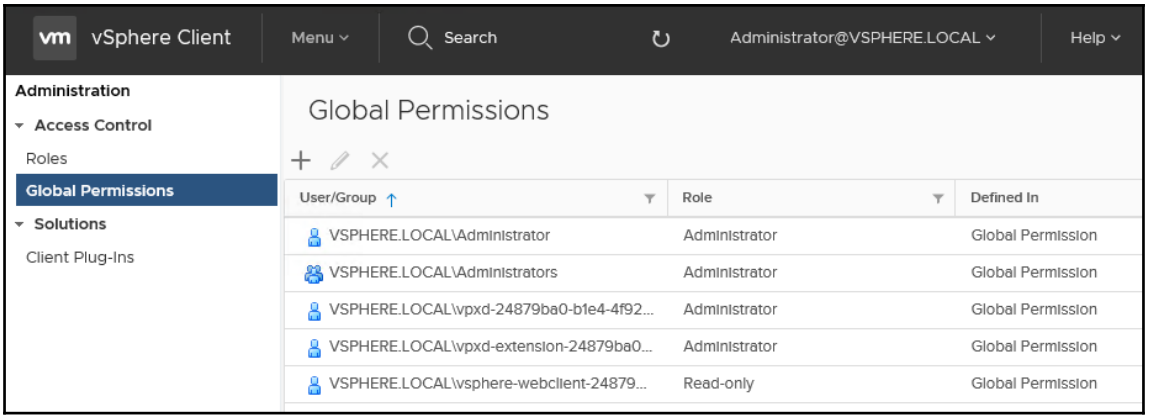


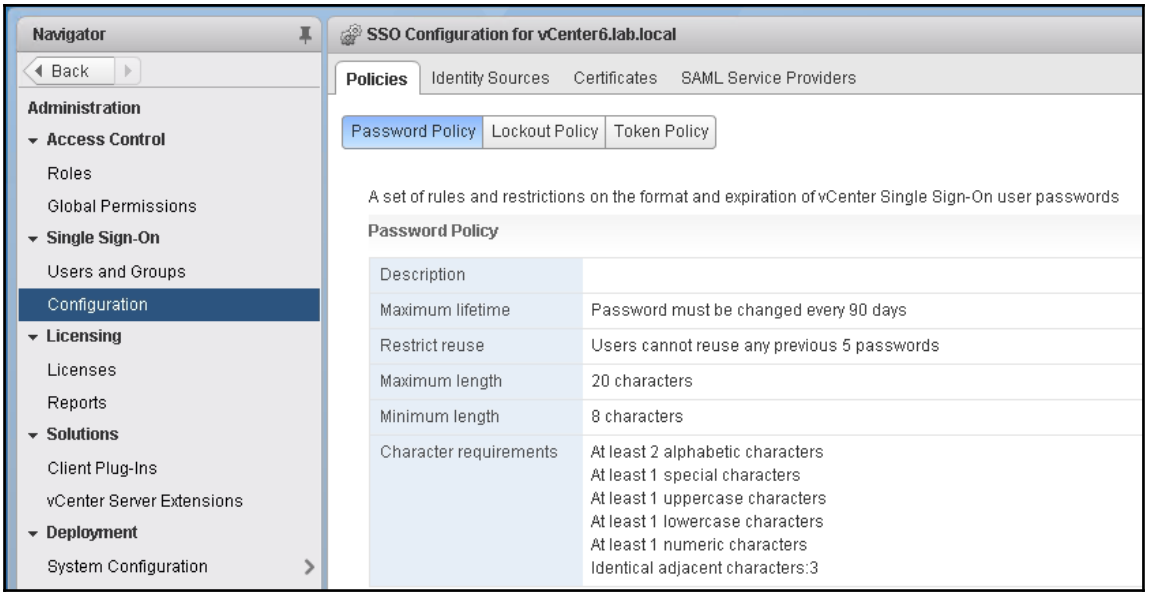
Chapter 10: Securing and Protecting Your Environment

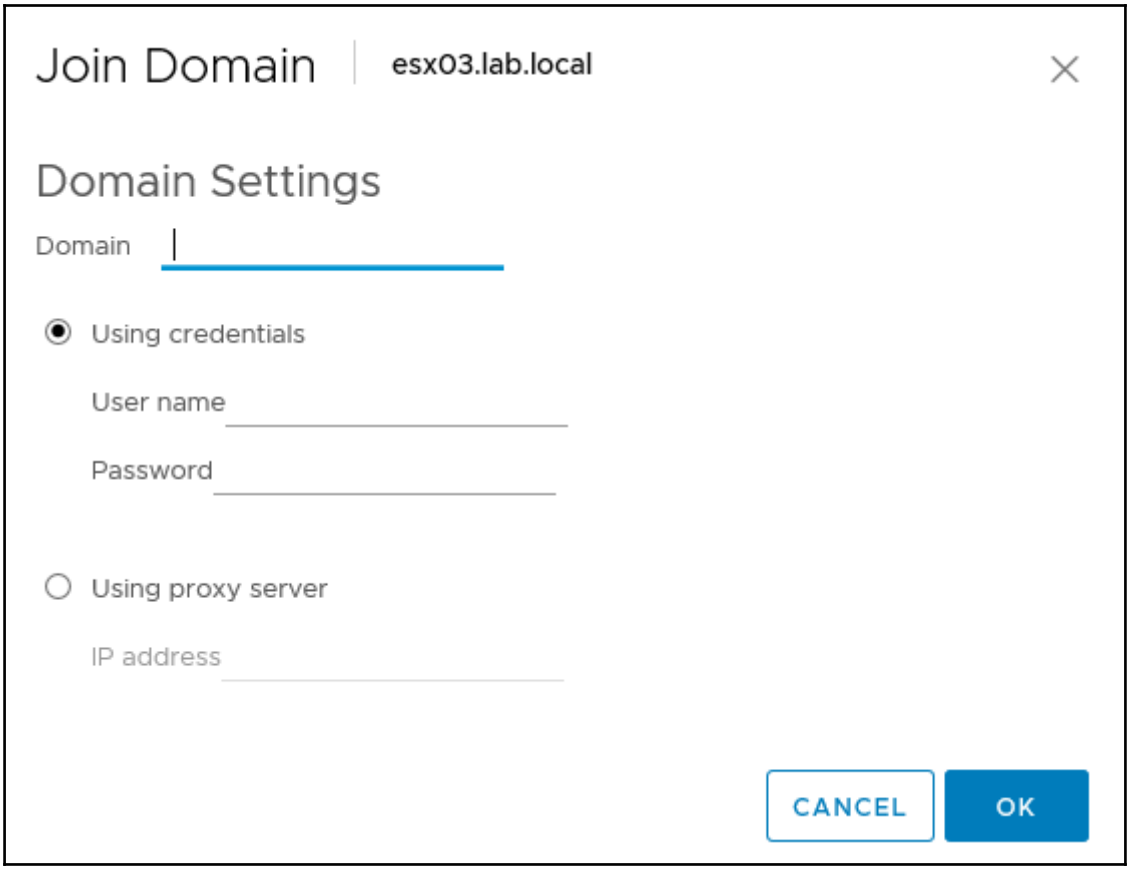

esx03.lab.local - Lockdown Mode
Lockdown Mode
Exception Users
Lockdown Mode
When enabled, lockdown mode prevents remote users from logging directly to this host.
The host is accessible only through the local console or vCenter Server.
Specify host lockdown mode:
Disabled
Lockdown mode is disabled.
Normal
The host is accessible only through the local console or vCenter Server.
Strict
The host is accessible only through vCenter Server. The Direct Console UI service is stopped.
CANCEL
OK


Host Image Profile Acceptance Level
esx03.lab.local
Specify the required acceptance level of vSphere installation bundles to be admitted during installation.
Acceptance Level:
VMware Certified
VMware Accepted
Partner Supported
Community Supported
CANCEL
OK


Navigator
Back
Administration
Access Control
Roles
Global Permissions
Single Sign-On
Users and Groups
Configuration
SSO Configuration for vCenter6.lab.local
Policies
Identity Sources
Certificates
SAML Service Providers
Name
Server URL
Type
Domain
--
--
--
vsphere.local
--
--
Local OS
VCENTER6 (default)
lab.local
--
Active Directory (Integrated Windows A...
lab.local


vSphere Client
Menu
Search
Administrator@VSPHERE.LOCAL
Help
Administration
Access Control
Roles
Global Permissions
Solutions
Client Plug-Ins
Global Permissions
User/Group
Role
Defined In
VSPHERE.LOCAL\Administrator
Administrator
Global Permission
VSPHERE.LOCAL\Administrators
Administrator
Global Permission
VSPHERE.LOCAL\vpxd-24879ba0-b1e4-4f92...
Administrator
Global Permission
VSPHERE.LOCAL\vpxd-extension-24879ba0...
Administrator
Global Permission
VSPHERE.LOCAL\vsphere-webclient-24879...
Read-only
Global Permission


Navigator
Back
Administration
Access Control
Roles
Global Permissions
Single Sign-On
Users and Groups
Configuration
Licensing
Licenses
Reports
Solutions
Client Plug-Ins
vCenter Server Extensions
Deployment
System Configuration
SSO Configuration for vCenter6.lab.local
Policies
Identity Sources
Certificates
SAML Service Providers
Password Policy
Lockout Policy
Token Policy
A set of rules and restrictions on the format and expiration of vCenter Single Sign-On user passwords
Password Policy
Description
Maximum lifetime
Password must be changed every 90 days
Restrict reuse
Users cannot reuse any previous 5 passwords
Maximum length
20 characters
Minimum length
8 characters
Character requirements
At least 2 alphabetic characters
At least 1 special characters
At least 1 uppercase characters
At least 1 lowercase characters
At least 1 numeric characters
Identical adjacent characters:3


Join Domain
esx03.lab.local
Domain Settings
Domain
Using credentials
User name
Password
Using proxy server
IP address
CANCEL
OK


User name:
example@domain.local
Passcode:
Use Windows session authentication
Use RSA SecurID
Login
VMware® vCenter™ Single Sign-On
Passcode for soft token users:
Enter only the generated token code from app
Passcode for hard token users:
Enter pin + generated token code

vmware

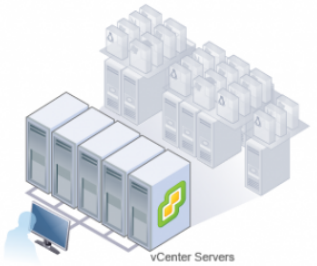
Getting Started

To access vSphere, log in to:

- vSphere Web Client (Flash)
- vSphere Client (HTML5) - partial functionality

For help, see:

- vSphere Documentation
- Supported Functionality in vSphere Client (HTML5)



For Administrators

Web-Based Datastore Browser

Use your web browser to find and download files (for example, virtual machine and virtual disk files).

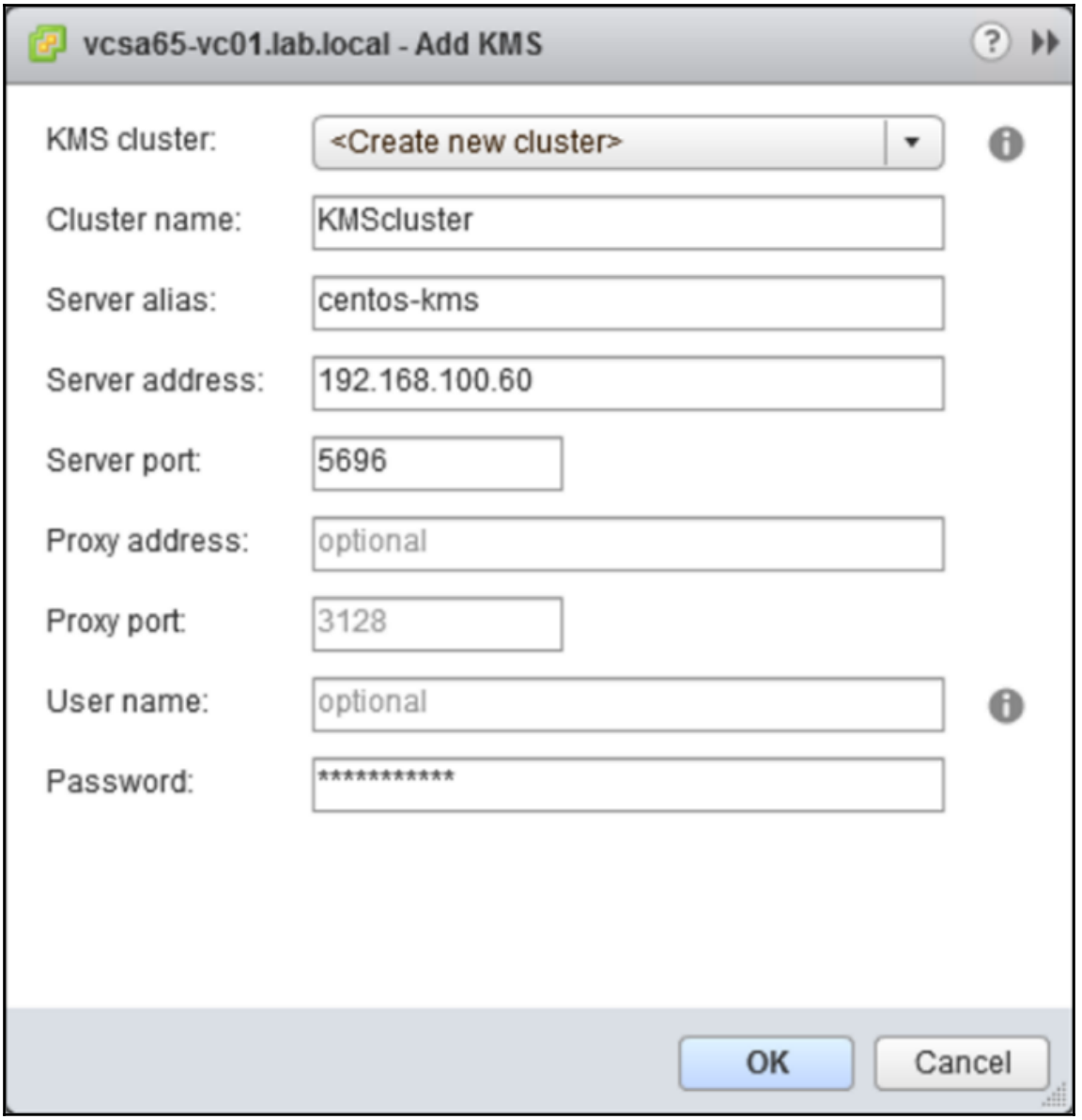
- Browse datastores in the vSphere inventory

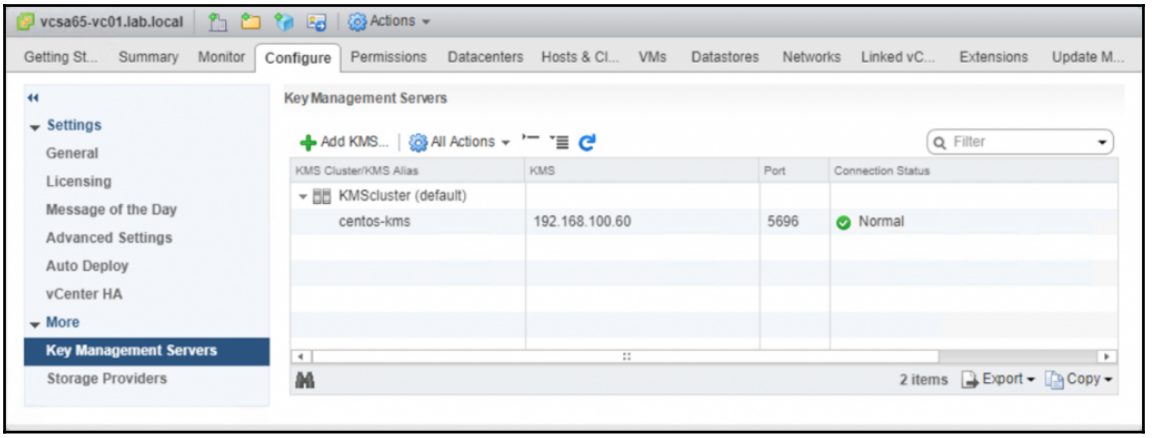
For Developers

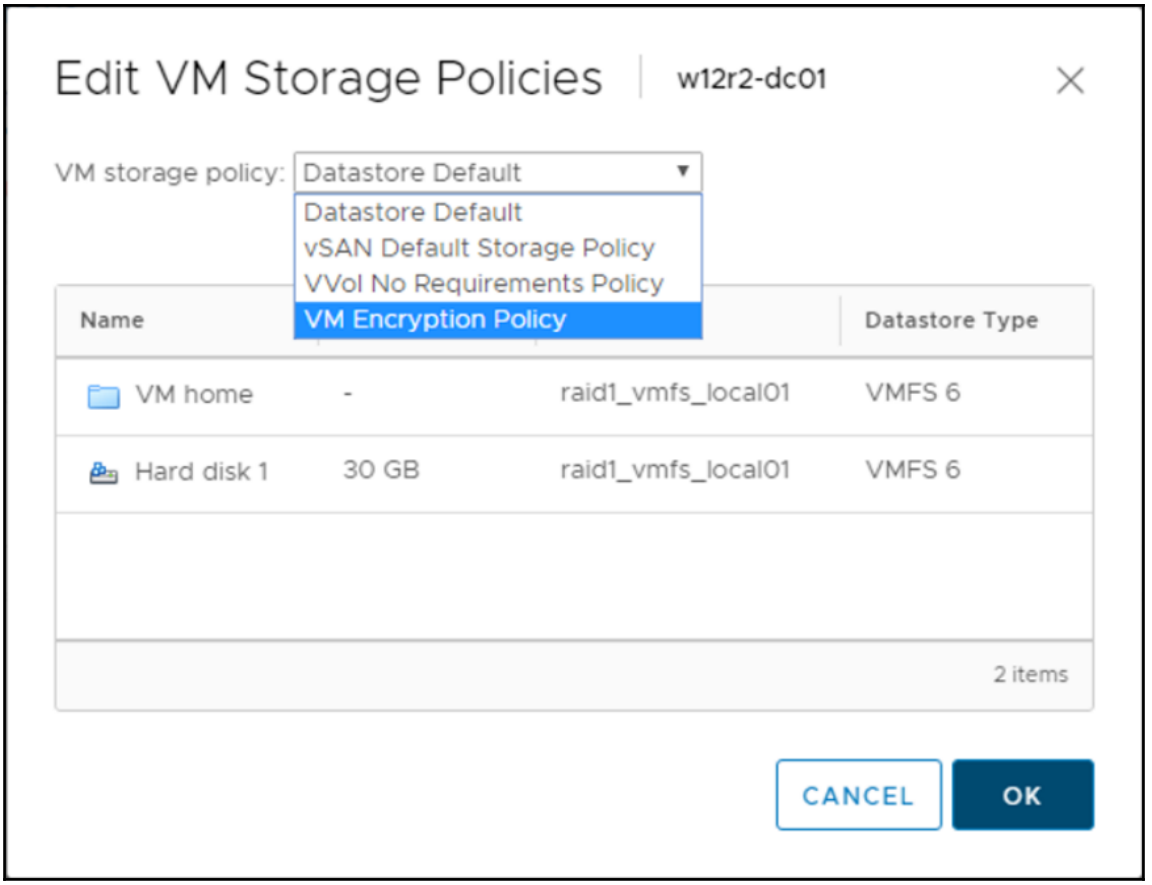
vSphere Web Services SDK

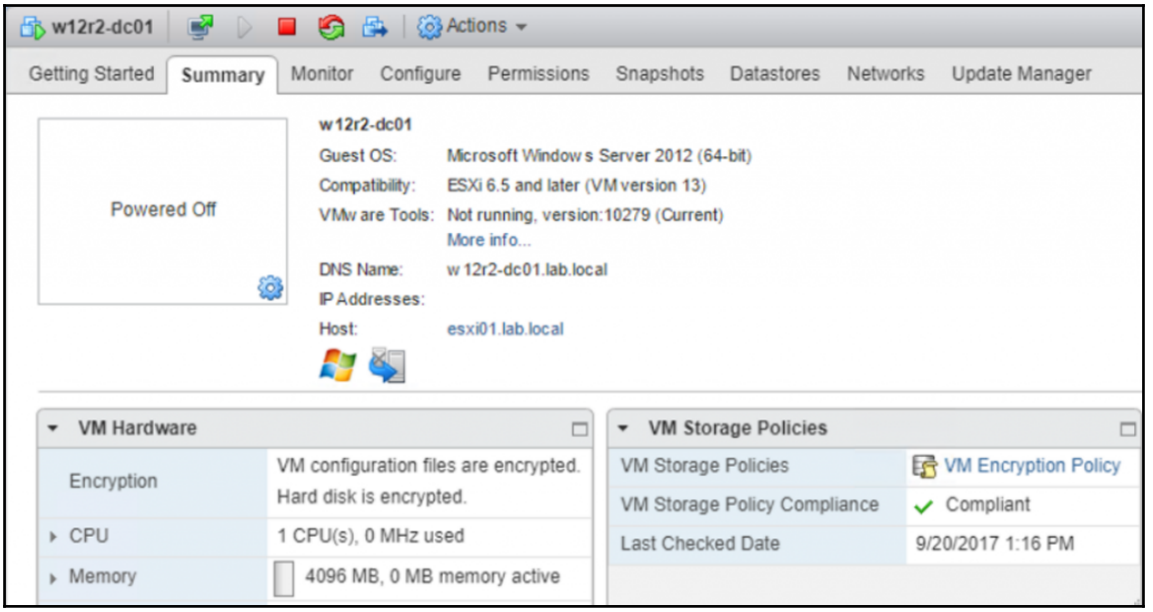
Learn about our latest SDKs, Toolkits, and APIs for managing VMware ESXi and VMware vCenter. Get sample code, reference documentation, participate in our Forum Discussions, and view our latest Sessions and Webinars.

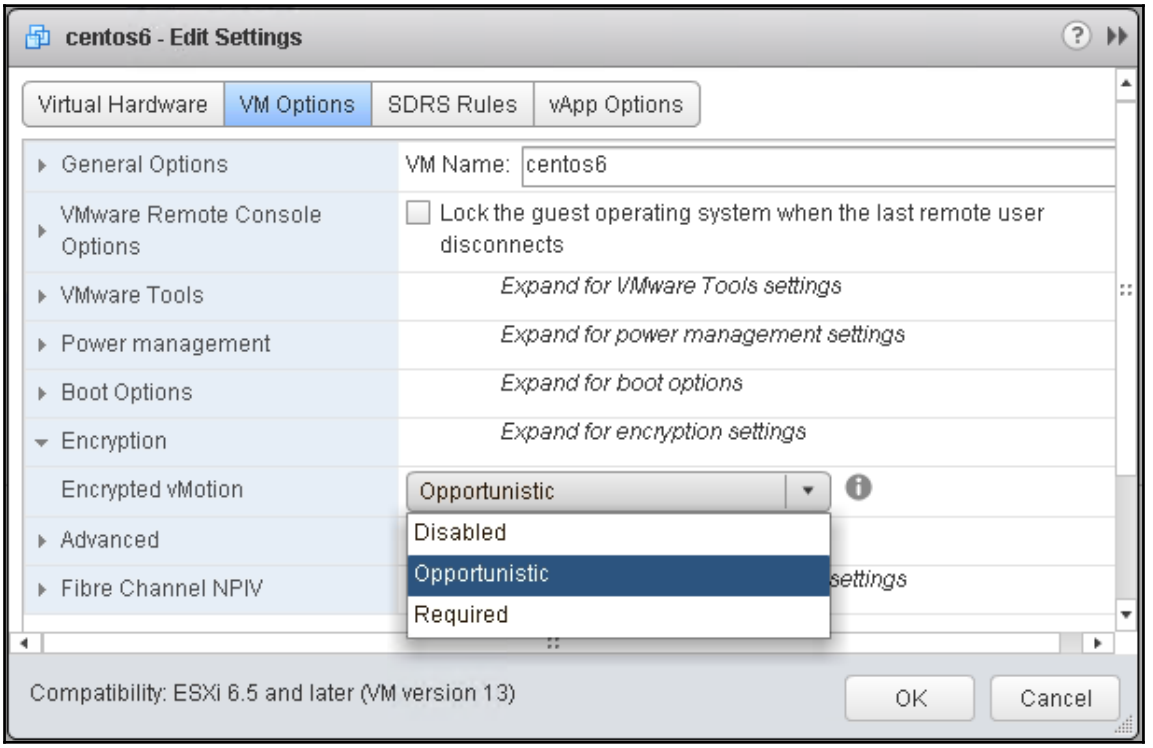
- Learn more about the Web Services SDK
- Browse objects managed by vSphere
- Browse vSphere REST APIs
- Download trusted root CA certificates

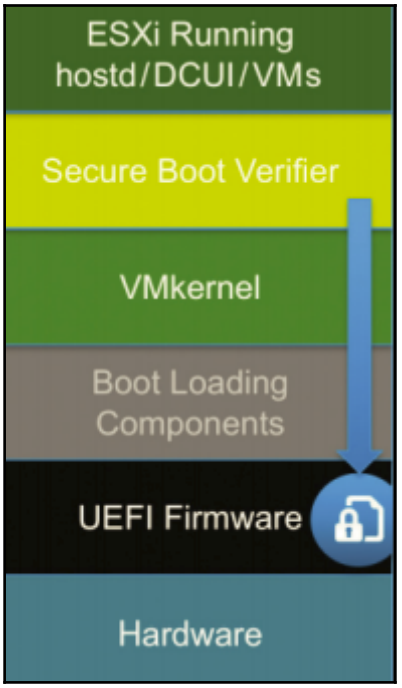

vcsa65-vc01.lab.local - Add KMS
KMS cluster:
<Create new cluster>
Cluster name:
KMScluster
Server alias:
centos-kms
Server address:
192.168.100.60
Server port:
5696
Proxy address:
optional
Proxy port:
3128
User name:
optional
Password:
****
OK
Cancel


vcsa65-vc01.lab.local
Actions
Getting St...
Summary
Monitor
Configure
Permissions
Datacenters
Hosts & Cl...
VMs
Datastores
Networks
Linked vC...
Extensions
Update M...
Settings
General
Licensing
Message of the Day
Advanced Settings
Auto Deploy
vCenter HA
More
Key Management Servers
Storage Providers
Key Management Servers
Add KMS...
All Actions
Filter
KMS Cluster/KMS Alias
KMS
Port
Connection Status
KMScluster (default)
centos-kms
192.168.100.60
5696
Normal
2 items
Export
Copy


Edit VM Storage Policies
w12r2-dc01
VM storage policy:
Datastore Default
Datastore Default
vSAN Default Storage Policy
VVol No Requirements Policy
VM Encryption Policy
Name
Datastore Type
VM home
-
raid1_vmfs_local01
VMFS 6
Hard disk 1
30 GB
raid1_vmfs_local01
VMFS 6
2 items
CANCEL
OK


w12r2-dc01
Actions
Getting Started
Summary
Monitor
Configure
Permissions
Snapshots
Datastores
Networks
Update Manager
Powered Off
w12r2-dc01
Guest OS: Microsoft Windows Server 2012 (64-bit)
Compatibility: ESXi 6.5 and later (VM version 13)
VMware Tools: Not running, version:10279 (Current)
More info...
DNS Name: w12r2-dc01.lab.local
IP Addresses:
Host: esxi01.lab.local
VM Hardware
Encryption
VM configuration files are encrypted.
Hard disk is encrypted.
CPU
1 CPU(s), 0 MHz used
Memory
4096 MB, 0 MB memory active
VM Storage Policies
VM Storage Policies
VM Encryption Policy
VM Storage Policy Compliance
Compliant
Last Checked Date
9/20/2017 1:16 PM


centos6 - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
General Options
VM Name: centos6
VMware Remote Console Options
Lock the guest operating system when the last remote user disconnects
VMware Tools
Expand for VMware Tools settings
Power management
Expand for power management settings
Boot Options
Expand for boot options
Encryption
Expand for encryption settings
Encrypted vMotion
Opportunistic
Disabled
Opportunistic
Required
Advanced
Fibre Channel NPIV
settings
Compatibility: ESXi 6.5 and later (VM version 13)
OK
Cancel

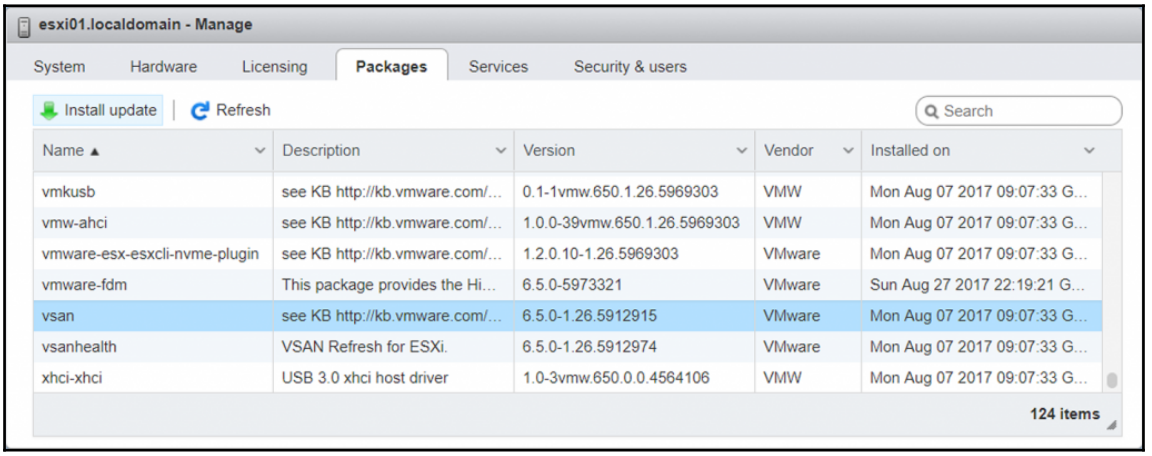


*Boot Options	
Firmware (*)	Choose which firmware should be used to boot the virtual machine: EFI ⚠ Changing firmware might cause the installed guest operating system to become unbootable.
Boot Delay	Whenever the virtual machine is powered on or reset, delay the boot order for: 0 milliseconds
Secure Boot	☐ Secure Boot (EFI boot only)
Force EFI setup	☐ The next time the virtual machine boots, force entry into the EFI setup screen
Failed Boot Recovery	☐ When the virtual machine fails to find a boot device, automatically retry boot after: 10 seconds

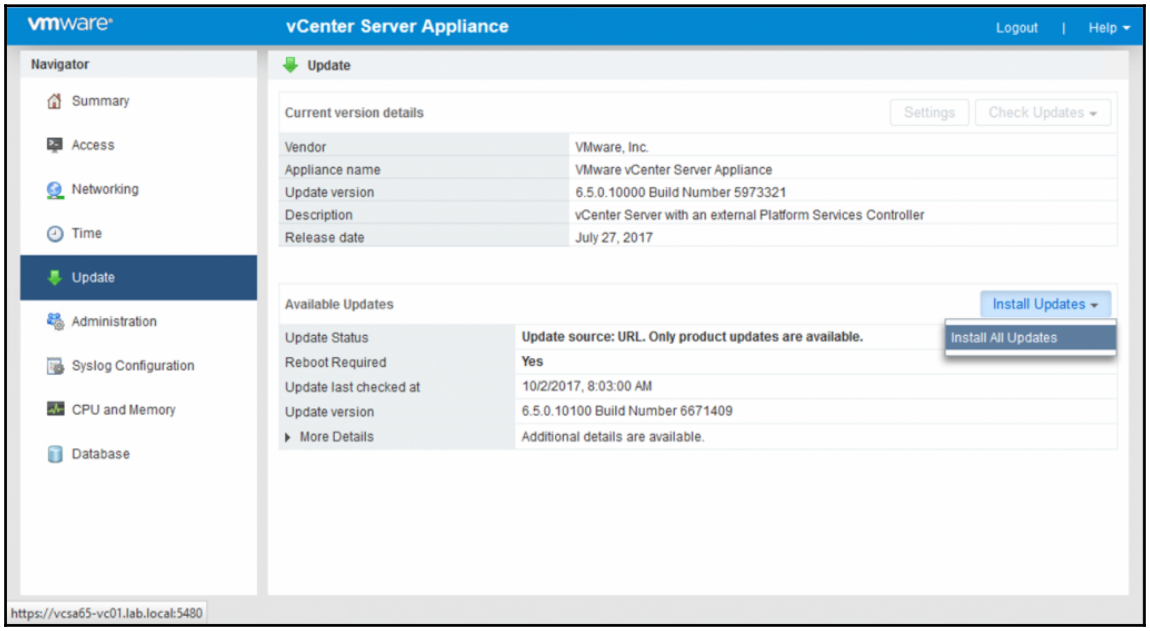
Chapter 11: Lifecycle Management, Patching, and Upgrading

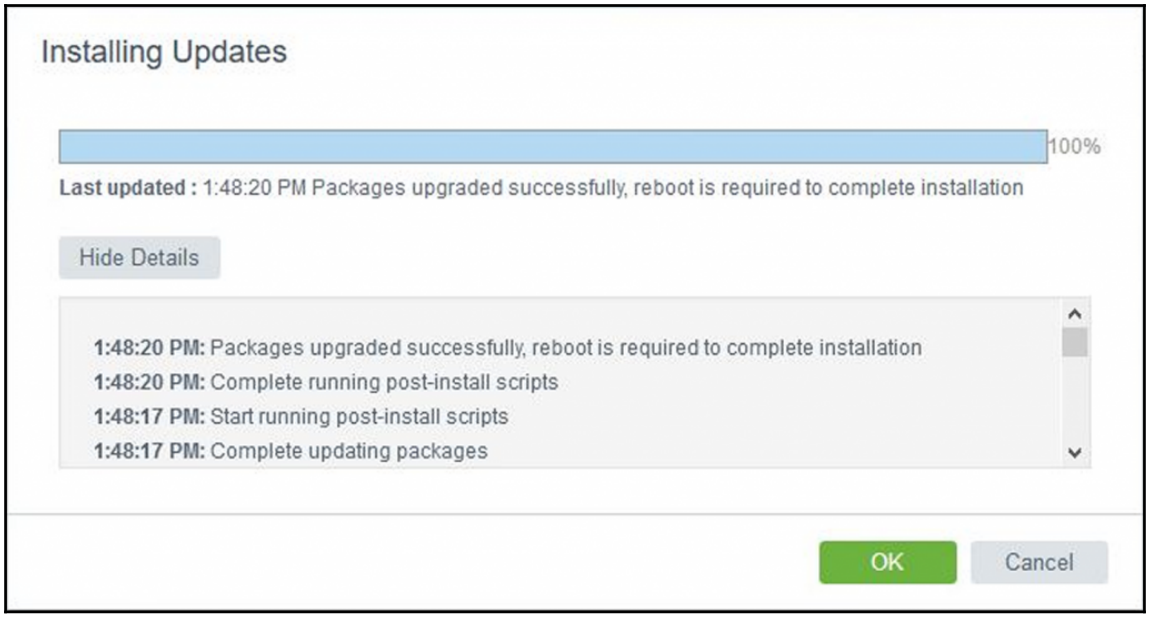
```
[root@esxi01:~] esxcli system version get
   Product: VMware ESXi
   Version: 6.5.0
   Build: Releasebuild-4564106
   Update: 0
   Patch: 0
[root@esxi01:~]
```

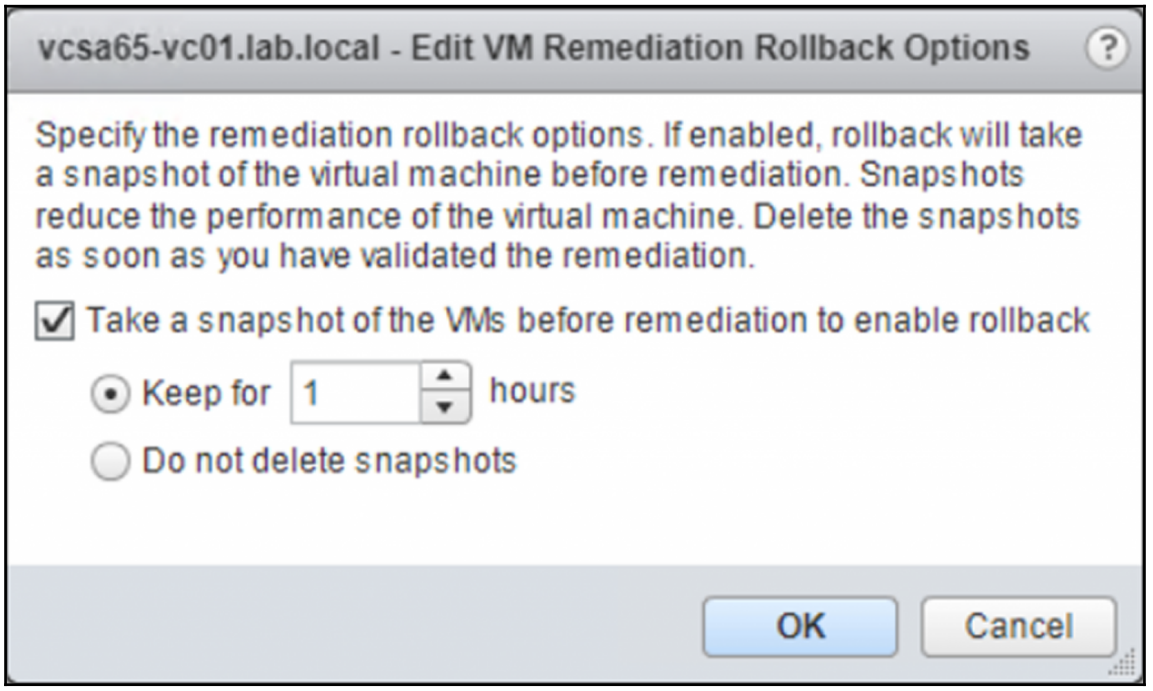
```
[root@esxi01:~] esxcli software vib update -d /vmfs/volumes/local_vmfs01/patches
/update-from-esxi6.5-6.5_update01.zip
Installation Result
   Message: The update completed successfully, but the system needs to be reboot
ed for the changes to be effective.
   Reboot Required: true
   VIBs Installed: VMW_bootbank_ehci-ehci-hcd_1.0-4vmw.650.0.14.5146846, VMW_boo
tbank_i40en_1.3.1-5vmw.650.1.26.5969303, VMW_bootbank_igbn_0.1.0.0-14vmw.650.1.2
6.5969303, VMW_bootbank_ixgben_1.4.1-2vmw.650.1.26.5969303, VMW_bootbank_misc-dr
ivers_6.5.0-1.26.5969303, VMW_bootbank_ne1000_0.8.0-16vmw.650.1.26.5969303, VMW_
bootbank_ntg3_4.1.2.0-1vmw.650.1.26.5969303, VMW_bootbank_nvme_1.2.0.32-4vmw.650
.1.26.5969303, VMW_bootbank_pvscsi_0.1-1vmw.650.1.26.5969303, VMW_bootbank_qlnat
ivefc_2.1.50.0-1vmw.650.1.26.5969303, VMW_bootbank_sata-ahci_3.0-26vmw.650.1.26.
5969303, VMW_bootbank_usbcore-usb_1.0-3vmw.650.1.26.5969303, VMW_bootbank_vmkata
_0.1-1vmw.650.1.26.5969303, VMW_bootbank_vmkusb_0.1-1vmw.650.1.26.5969303, VMW_b
```

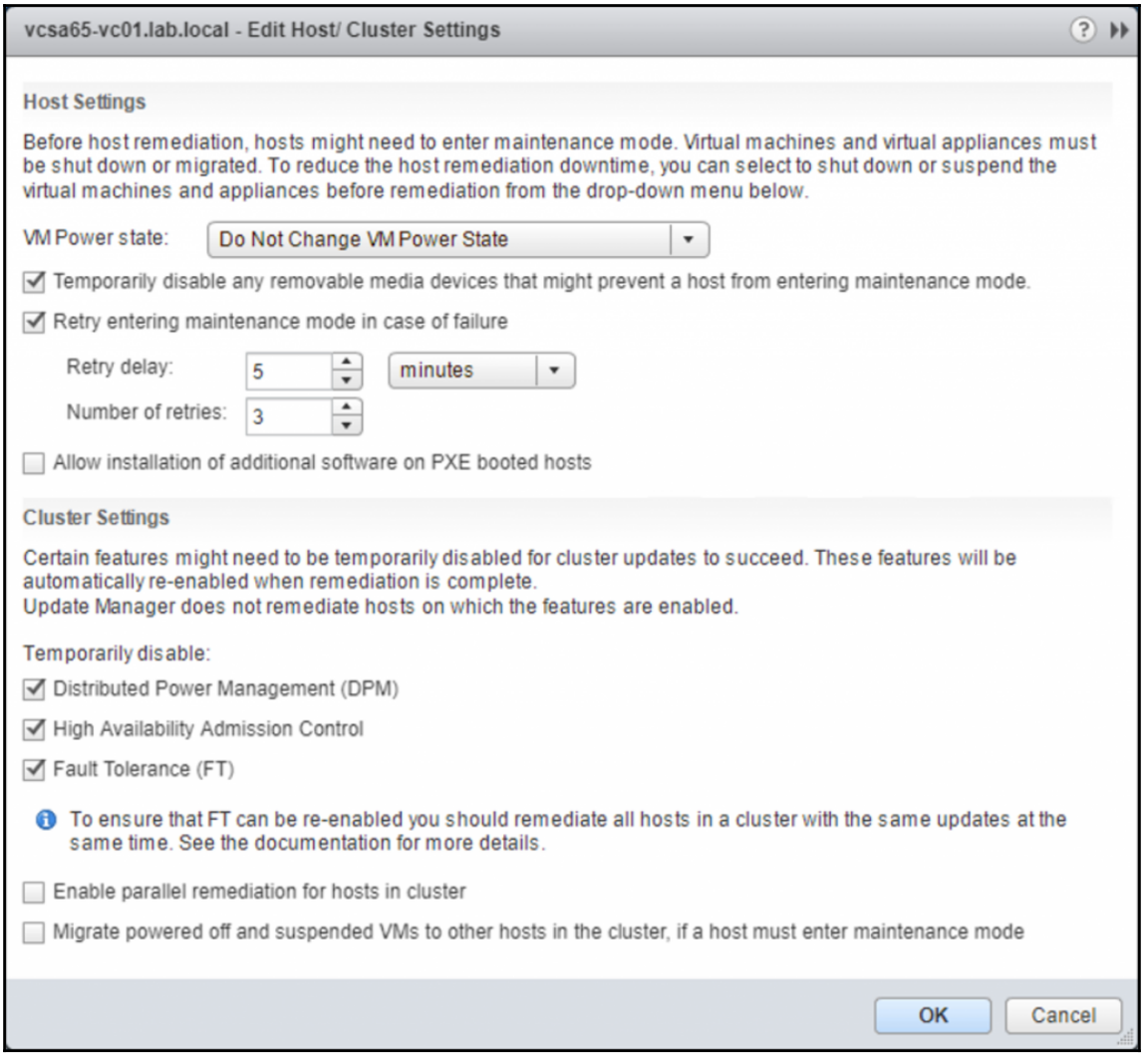


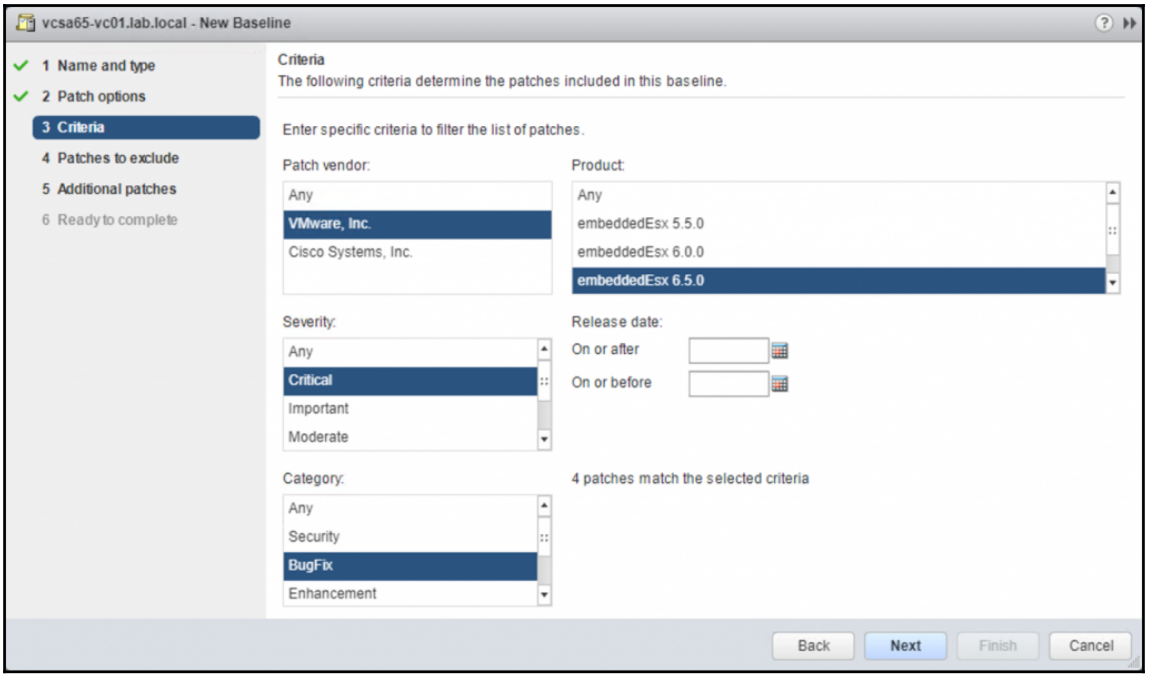
```
Command> software-packages list --staged
 [2017-10-02T11:48:22.275] :
        category: Security
        kb: https://docs.vmware.com/en/VMware-vSphere/6.5/rn/vcenter-server-appl
iance-photonos-security-patches.html
        vendor: VMware, Inc.
        name: VC-6.5.0U1a-Appliance-FP
        tags: [u'']
        summary: Patch for vCenter Server Appliance 6.5 with security fixes for
PhotonOS
        version_supported: [u'6.5.0.10000']
        thirdPartyInstallation: False
        releasedate: September 21, 2017
        TPP_ISO: False
        version: 6.5.0.10100
        buildnumber: 6671409
        rebootrequired: True
        productname: VMware vCenter Server Appliance
        eulaAcceptTime: 2017-10-02 11:47:35 UTC
        severity: Critical
Command>
```

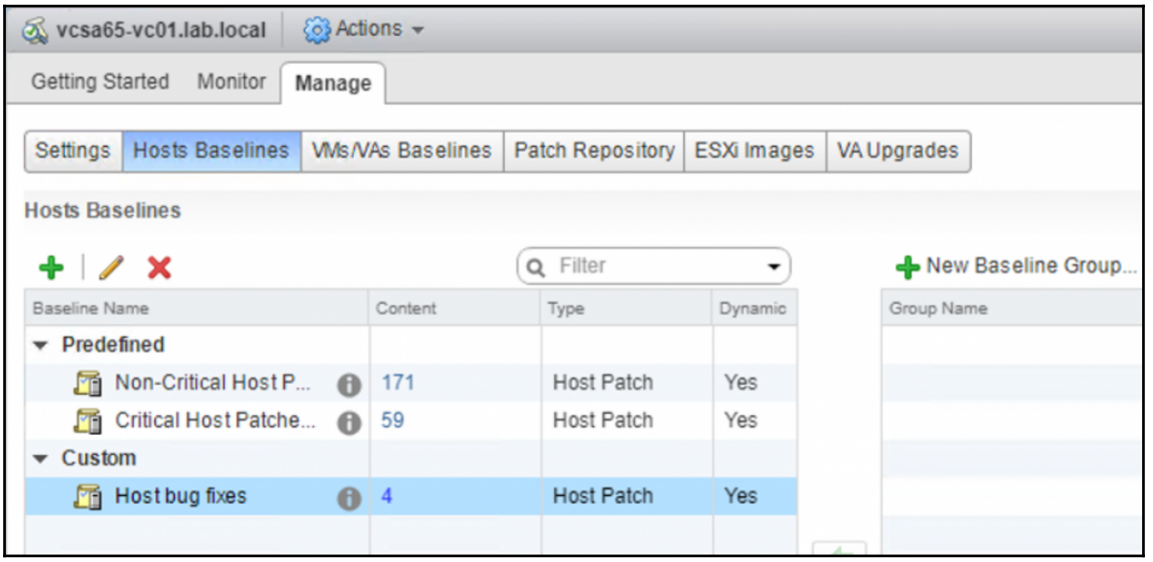


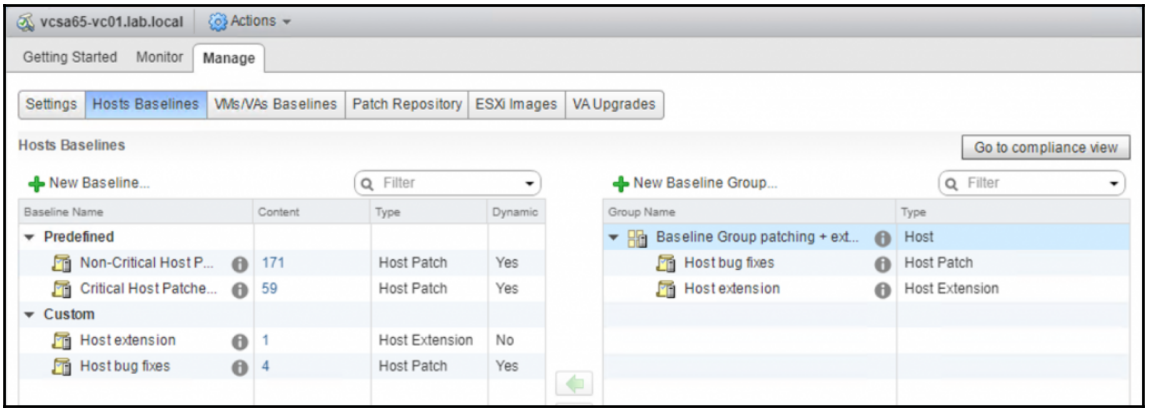

Installing Updates
100%
Last updated : 1:48:20 PM Packages upgraded successfully, reboot is required to complete installation
Hide Details
1:48:20 PM: Packages upgraded successfully, reboot is required to complete installation
1:48:20 PM: Complete running post-install scripts
1:48:17 PM: Start running post-install scripts
1:48:17 PM: Complete updating packages
OK
Cancel

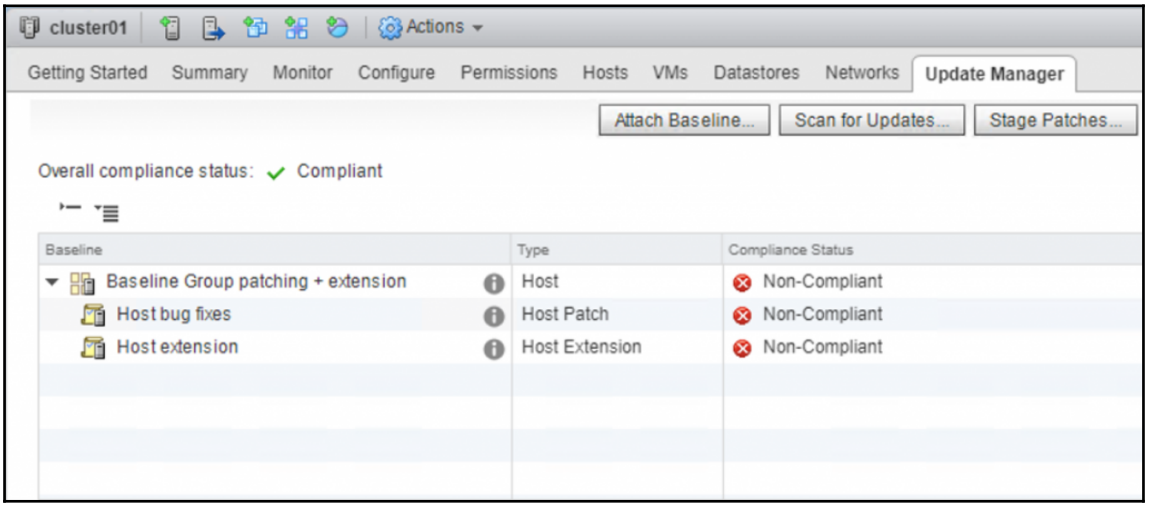

vcsa65-vc01.lab.local - Edit VM Remediation Rollback Options
Specify the remediation rollback options. If enabled, rollback will take a snapshot of the virtual machine before remediation. Snapshots reduce the performance of the virtual machine. Delete the snapshots as soon as you have validated the remediation.
Take a snapshot of the VMs before remediation to enable rollback
Keep for 1 hours
Do not delete snapshots
OK
Cancel

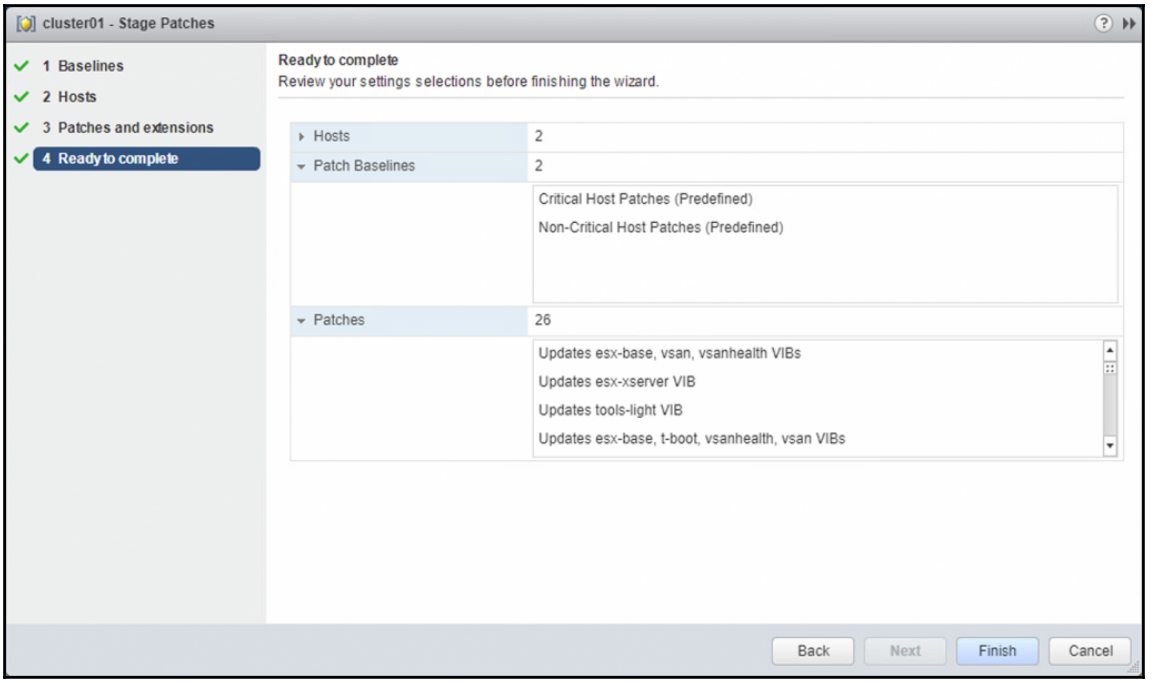

vcsa65-vc01.lab.local - Edit Host/ Cluster Settings
Host Settings
Before host remediation, hosts might need to enter maintenance mode. Virtual machines and virtual appliances must be shut down or migrated. To reduce the host remediation downtime, you can select to shut down or suspend the virtual machines and appliances before remediation from the drop-down menu below.
VM Power state:
Do Not Change VM Power State
Temporarily disable any removable media devices that might prevent a host from entering maintenance mode.
Retry entering maintenance mode in case of failure
Retry delay:
5
minutes
Number of retries:
3
Allow installation of additional software on PXE booted hosts
Cluster Settings
Certain features might need to be temporarily disabled for cluster updates to succeed. These features will be automatically re-enabled when remediation is complete.
Update Manager does not remediate hosts on which the features are enabled.
Temporarily disable:
Distributed Power Management (DPM)
High Availability Admission Control
Fault Tolerance (FT)
To ensure that FT can be re-enabled you should remediate all hosts in a cluster with the same updates at the same time. See the documentation for more details.
Enable parallel remediation for hosts in cluster
Migrate powered off and suspended VMs to other hosts in the cluster, if a host must enter maintenance mode
OK
Cancel

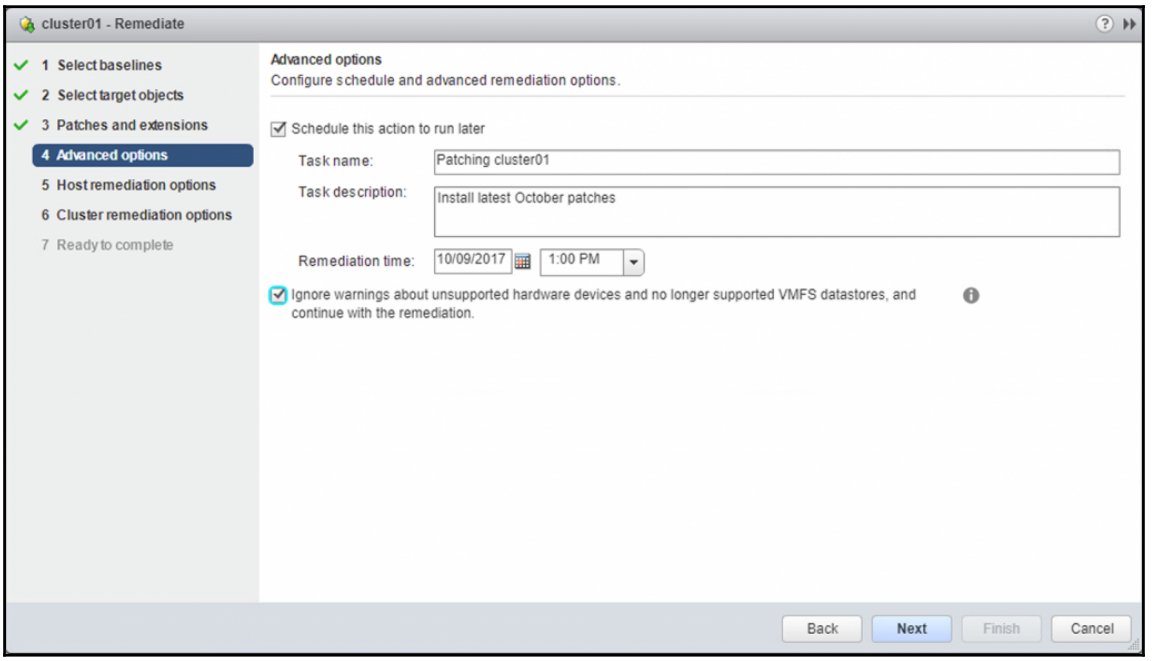

vcsa65-vc01.lab.local - New Baseline
1 Name and type
2 Patch options
3 Criteria
4 Patches to exclude
5 Additional patches
6 Ready to complete
Criteria
The following criteria determine the patches included in this baseline.
Enter specific criteria to filter the list of patches.
Patch vendor:
Any
VMware, Inc.
Cisco Systems, Inc.
Product:
Any
embeddedEsx 5.5.0
embeddedEsx 6.0.0
embeddedEsx 6.5.0
Severity:
Any
Critical
Important
Moderate
Release date:
On or after
On or before
Category:
Any
Security
BugFix
Enhancement
4 patches match the selected criteria
Back
Next
Finish
Cancel

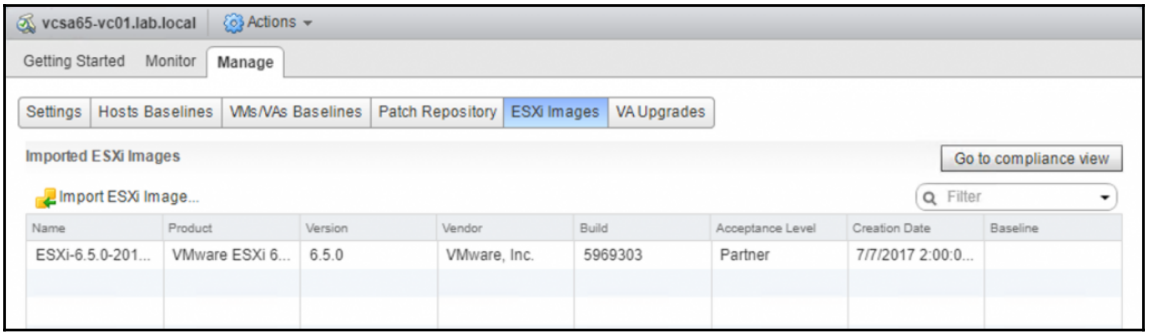

vcsa65-vc01.lab.local
Actions
Getting Started
Monitor
Manage
Settings
Hosts Baselines
VMs/VAs Baselines
Patch Repository
ESXi Images
VA Upgrades
Hosts Baselines
Filter
New Baseline Group...
Baseline Name
Content
Type
Dynamic
Group Name
Predefined
Non-Critical Host P...
171
Host Patch
Yes
Critical Host Patche...
59
Host Patch
Yes
Custom
Host bug fixes
4
Host Patch
Yes

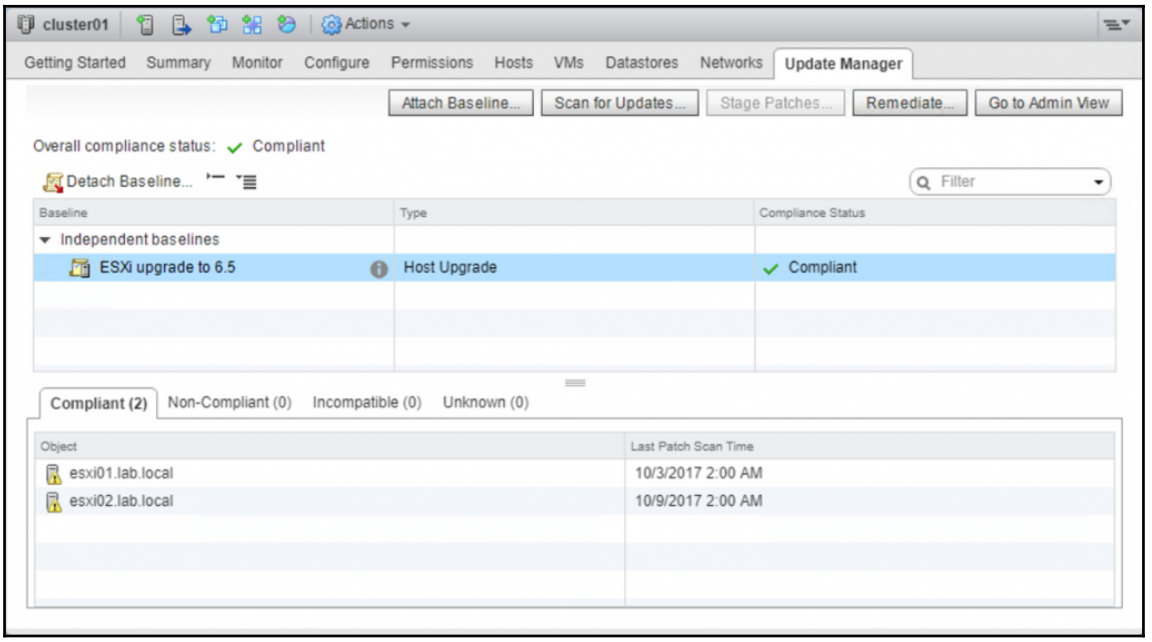

vcsa65-vc01.lab.local
Actions
Getting Started
Monitor
Manage
Settings
Hosts Baselines
VMs/VAs Baselines
Patch Repository
ESXi Images
VA Upgrades
Hosts Baselines
Go to compliance view
New Baseline...
Filter
Baseline Name
Content
Type
Dynamic
Predefined
Non-Critical Host P...
171
Host Patch
Yes
Critical Host Patche...
59
Host Patch
Yes
Custom
Host extension
1
Host Extension
No
Host bug fixes
4
Host Patch
Yes
New Baseline Group...
Filter
Group Name
Type
Baseline Group patching + ext...
Host
Host bug fixes
Host Patch
Host extension
Host Extension

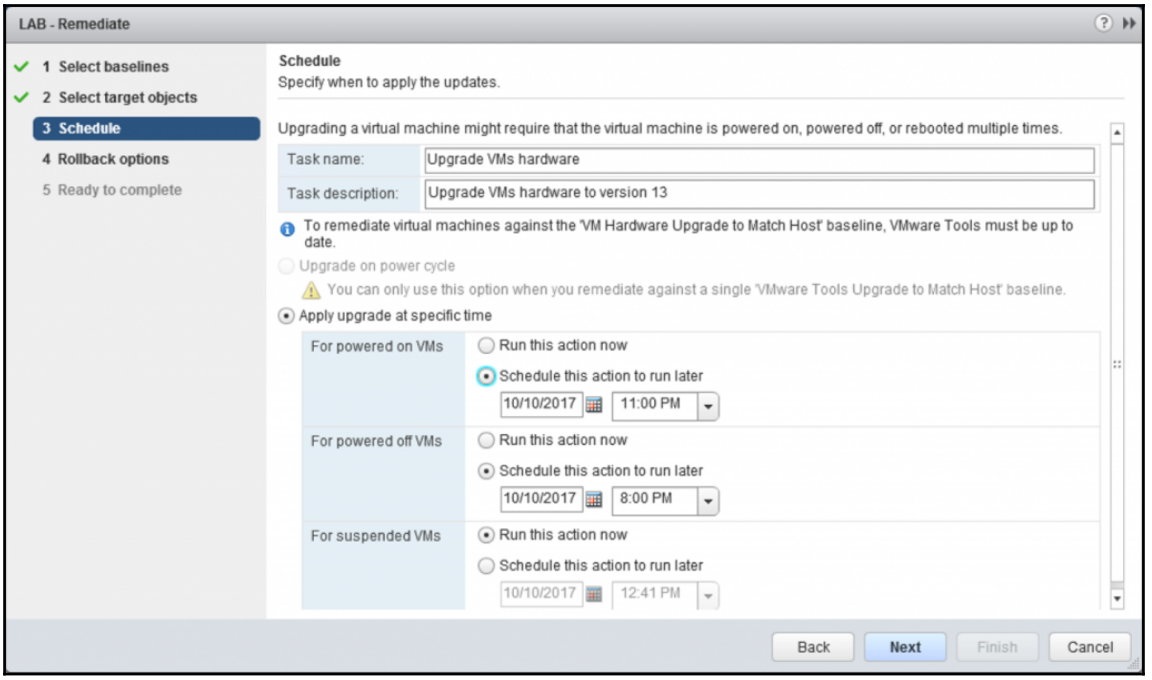

cluster01
Actions
Getting Started
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Update Manager
Attach Baseline...
Scan for Updates...
Stage Patches...
Overall compliance status:
Compliant
Baseline
Type
Compliance Status
Baseline Group patching + extension
Host
Non-Compliant
Host bug fixes
Host Patch
Non-Compliant
Host extension
Host Extension
Non-Compliant

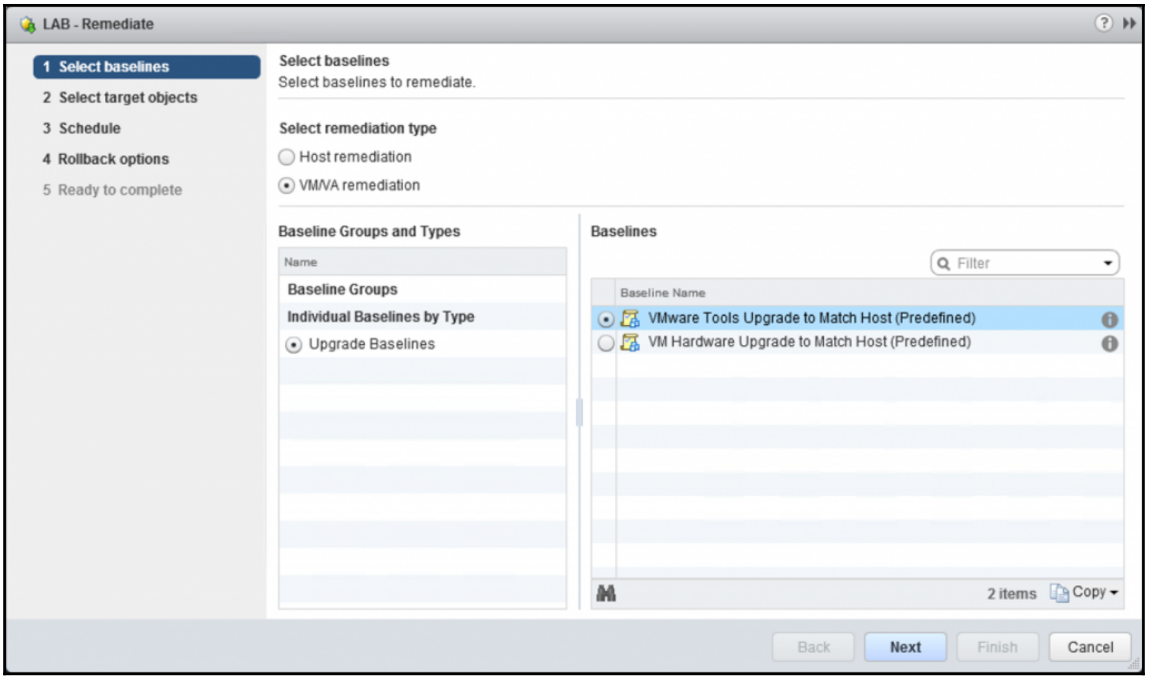

cluster01 - Stage Patches
1 Baselines
2 Hosts
3 Patches and extensions
4 Ready to complete
Ready to complete
Review your settings selections before finishing the wizard.
Hosts
2
Patch Baselines
2
Critical Host Patches (Predefined)
Non-Critical Host Patches (Predefined)
Patches
26
Updates esx-base, vsan, vsanhealth VIBs
Updates esx-xserver VIB
Updates tools-light VIB
Updates esx-base, t-boot, vsanhealth, vsan VIBs
Back
Next
Finish
Cancel

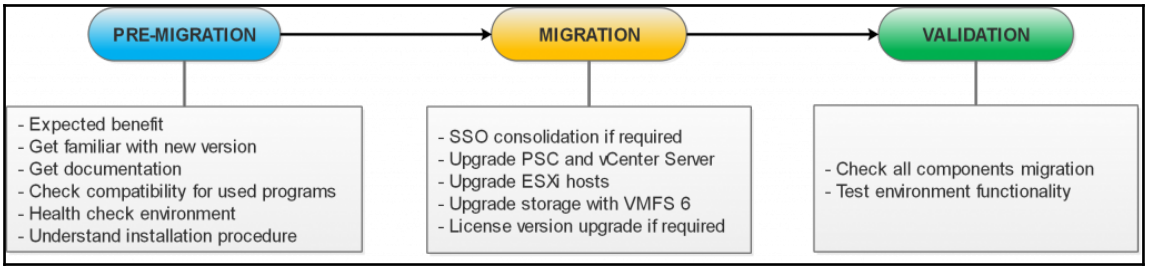

cluster01 - Remediate
1 Select baselines
2 Select target objects
3 Patches and extensions
4 Advanced options
5 Host remediation options
6 Cluster remediation options
7 Ready to complete
Advanced options
Configure schedule and advanced remediation options.
Schedule this action to run later
Task name:
Patching cluster01
Task description:
Install latest October patches
Remediation time:
10/09/2017
1:00 PM
Ignore warnings about unsupported hardware devices and no longer supported VMFS datastores, and continue with the remediation.
Back
Next
Finish
Cancel

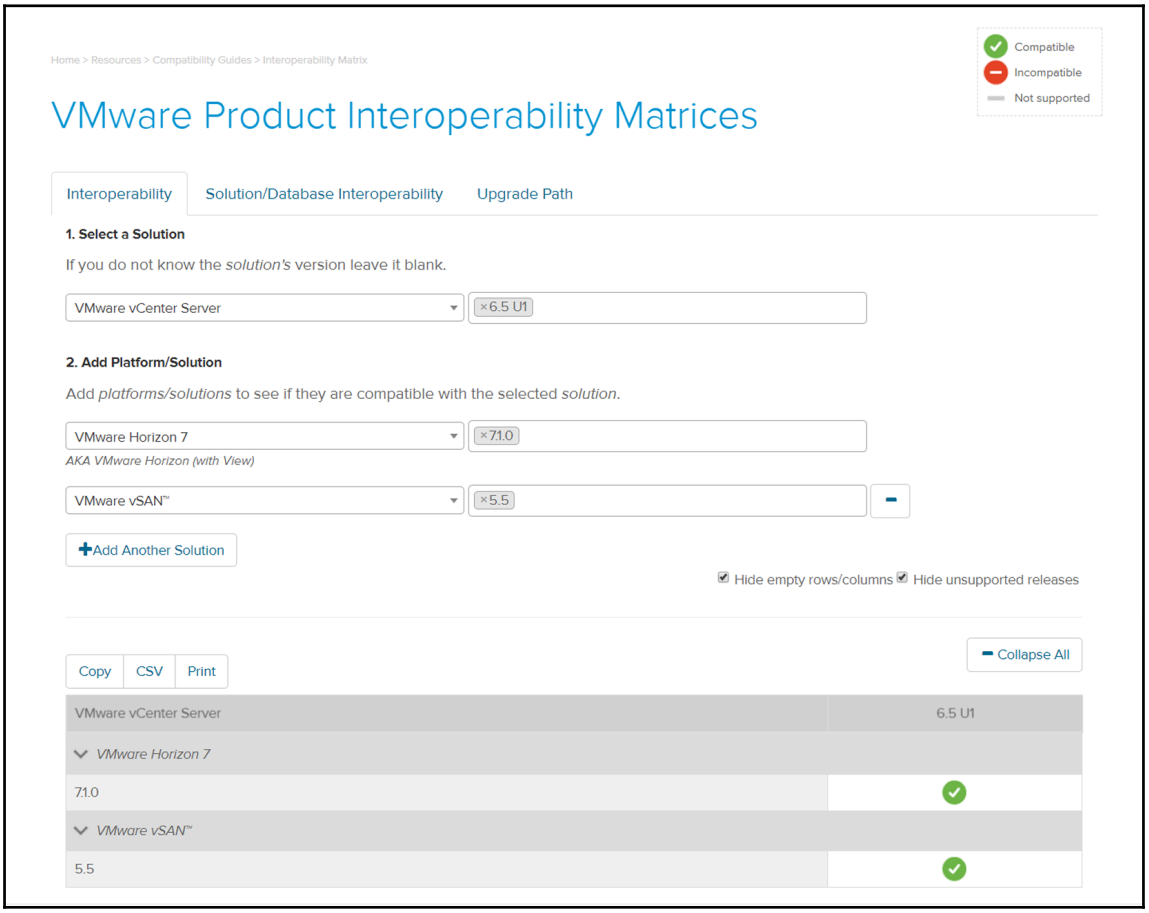

vcsa65-vc01.lab.local
Actions
Getting Started
Monitor
Manage
Settings
Hosts Baselines
VMs/VAs Baselines
Patch Repository
ESXi Images
VA Upgrades
Imported ESXi Images
Go to compliance view
Import ESXi Image...
Filter
Name
Product
Version
Vendor
Build
Acceptance Level
Creation Date
Baseline
ESXi-6.5.0-201...
VMware ESXi 6...
6.5.0
VMware, Inc.
5969303
Partner
7/7/2017 2:00:0...


cluster01
Actions
Getting Started
Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Update Manager
Attach Baseline...
Scan for Updates...
Stage Patches...
Remediate...
Go to Admin View
Overall compliance status:
Compliant
Detach Baseline...
Filter
Baseline
Type
Compliance Status
Independent baselines
ESXi upgrade to 6.5
Host Upgrade
Compliant
Compliant (2)
Non-Compliant (0)
Incompatible (0)
Unknown (0)
Object
Last Patch Scan Time
esxi01.lab.local
10/3/2017 2:00 AM
esxi02.lab.local
10/9/2017 2:00 AM


LAB - Remediate
1 Select baselines
2 Select target objects
3 Schedule
4 Rollback options
5 Ready to complete
Schedule
Specify when to apply the updates.
Upgrading a virtual machine might require that the virtual machine is powered on, powered off, or rebooted multiple times.
Task name:
Upgrade VMs hardware
Task description:
Upgrade VMs hardware to version 13
To remediate virtual machines against the 'VM Hardware Upgrade to Match Host' baseline, VMware Tools must be up to date.
Upgrade on power cycle
You can only use this option when you remediate against a single 'VMware Tools Upgrade to Match Host' baseline.
Apply upgrade at specific time
For powered on VMs
Run this action now
Schedule this action to run later
10/10/2017
11:00 PM
For powered off VMs
Run this action now
Schedule this action to run later
10/10/2017
8:00 PM
For suspended VMs
Run this action now
Schedule this action to run later
10/10/2017
12:41 PM
Back
Next
Finish
Cancel

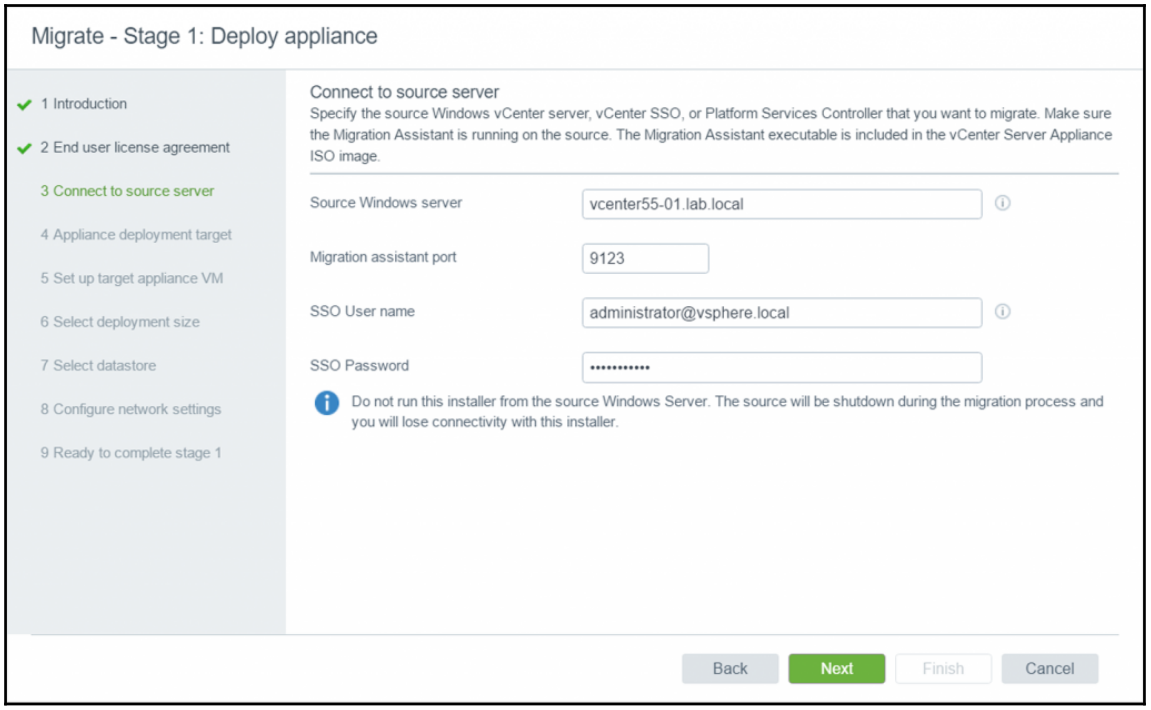

LAB - Remediate
1 Select baselines
2 Select target objects
3 Schedule
4 Rollback options
5 Ready to complete
Select baselines
Select baselines to remediate.
Select remediation type
Host remediation
VM/VA remediation
Baseline Groups and Types
Name
Baseline Groups
Individual Baselines by Type
Upgrade Baselines
Baselines
Filter
Baseline Name
VMware Tools Upgrade to Match Host (Predefined)
VM Hardware Upgrade to Match Host (Predefined)
2 items
Copy
Back
Next
Finish
Cancel

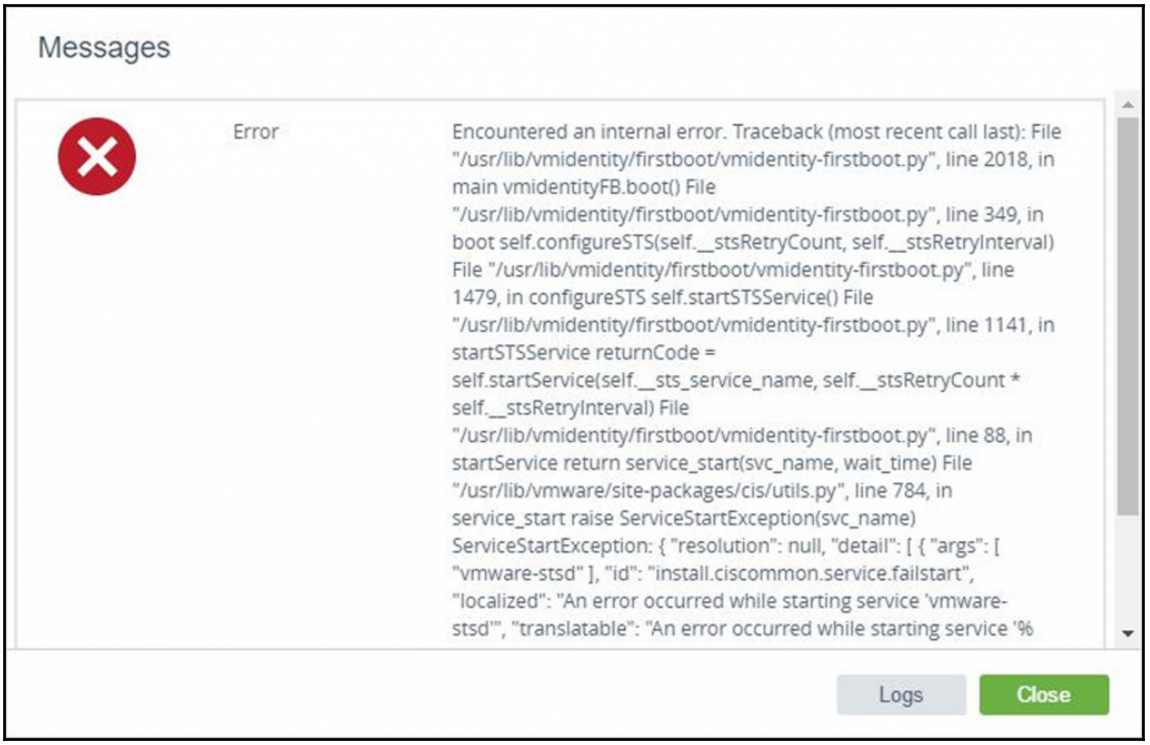

PRE-MIGRATION
MIGRATION
VALIDATION
- Expected benefit
- Get familiar with new version
- Get documentation
- Check compatibility for used programs
- Health check environment
- Understand installation procedure
- SSO consolidation if required
- Upgrade PSC and vCenter Server
- Upgrade ESXi hosts
- Upgrade storage with VMFS 6
- License version upgrade if required
- Check all components migration
- Test environment functionality

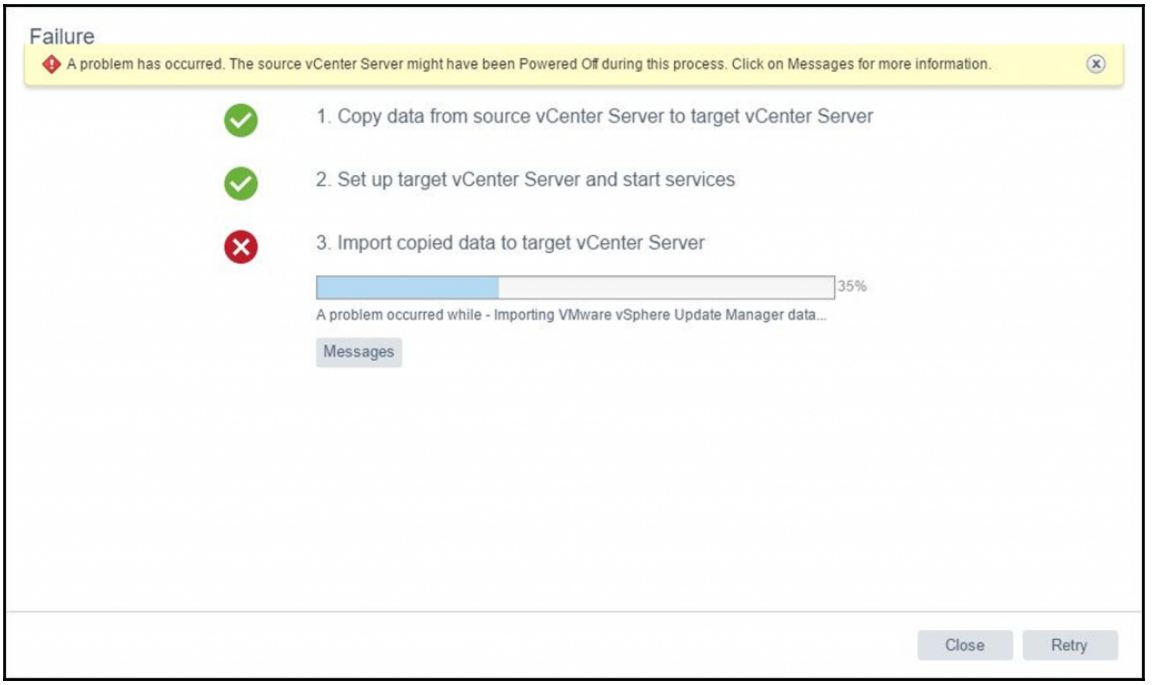

Home > Resources > Compatibility Guides > Interoperability Matrix
Compatible
Incompatible
Not supported
VMware Product Interoperability Matrices
Interoperability
Solution/Database Interoperability
Upgrade Path
1. Select a Solution
If you do not know the solution's version leave it blank.
VMware vCenter Server
×6.5 U1
2. Add Platform/Solution
Add platforms/solutions to see if they are compatible with the selected solution.
VMware Horizon 7
×7.1.0
AKA VMware Horizon (with View)
VMware vSAN™
×5.5
Add Another Solution
Hide empty rows/columns
Hide unsupported releases
Collapse All
Copy
CSV
Print
VMware vCenter Server
6.5 U1
VMware Horizon 7
7.1.0
VMware vSAN™
5.5

```
G:\vcsa-cli-installer\win32>vcsa-deploy.exe --help
Usage: vcsa-deploy.exe [-h] [--version] [--supported-deployment-sizes]
                       {migrate,upgrade,install} ...

optional arguments:
  -h, --help            Show this help message and exit.
  --version             Show the version and exit.
  --supported-deployment-sizes
                        Display all of the supported deployment options from the
                        OVA in default location. If the OVA package is not
                        found, default values are displayed

Available sub-commands. Use vcsa-deploy [subcommand] --help for a list of subcommand-specific arguments:
  {migrate,upgrade,install}
    install             Deploy vCSA to a remote host.
    upgrade             Upgrade an existing vCSA.
    migrate             Migrate an existing Windows installation of vCenter
                        Server to a vCSA.

G:\vcsa-cli-installer\win32>
```

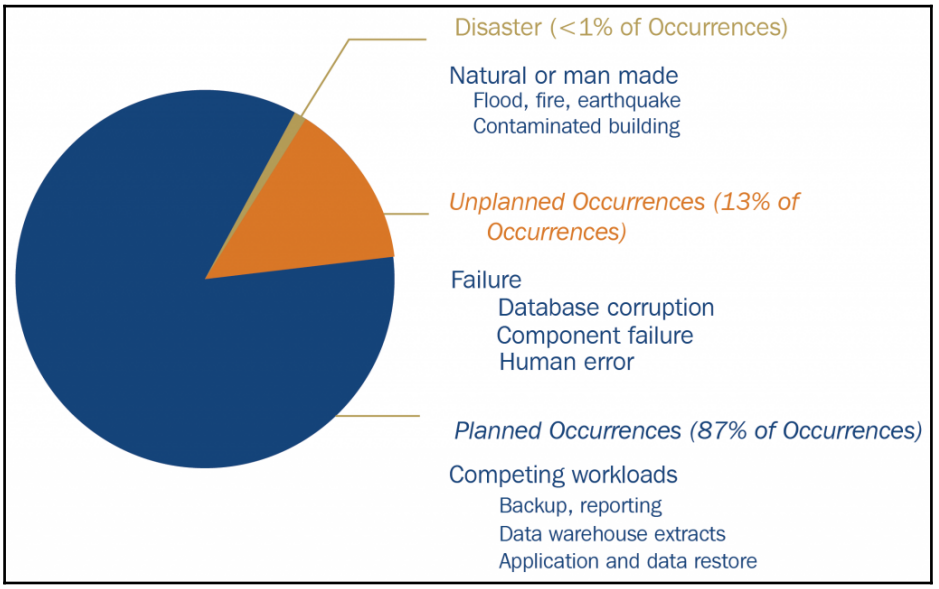
```
PS C:\> Get-Datastore | ft name, Type, FileSystemVersion

Name                           Type FileSystemVersion
----                           ---- -----------------
ts421_nfs01                    NFS  3.0
nfs_drstorage                  NFS  3.0
local_esxi01_disk1             VMFS 6.81
local_esxi02_disk1             VMFS 6.81
ts421_lun02                    VMFS 5.61
ts421_lun03                    VMFS 5.61
ts421_lun01                    VMFS 5.61


PS C:\>
```

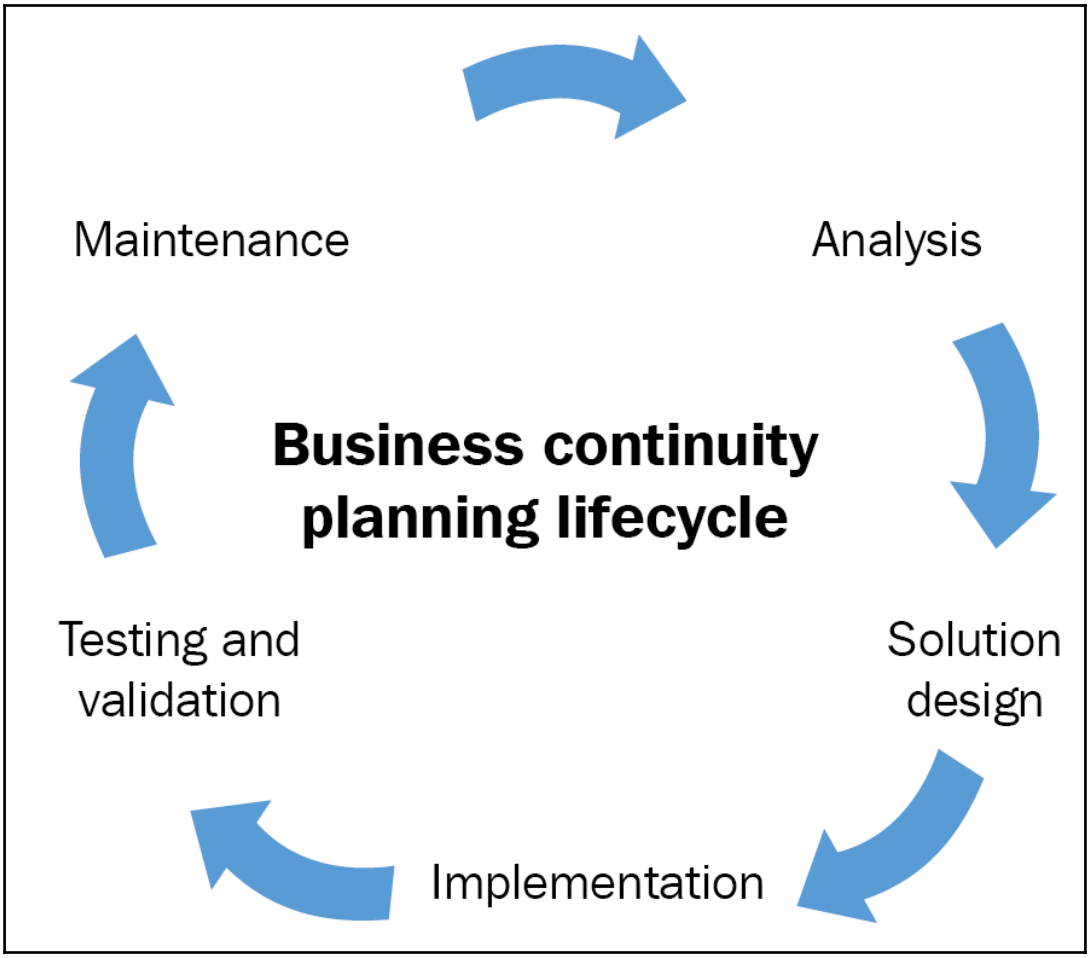

Migrate - Stage 1: Deploy appliance
1 Introduction
2 End user license agreement
3 Connect to source server
4 Appliance deployment target
5 Set up target appliance VM
6 Select deployment size
7 Select datastore
8 Configure network settings
9 Ready to complete stage 1
Connect to source server
Specify the source Windows vCenter server, vCenter SSO, or Platform Services Controller that you want to migrate. Make sure the Migration Assistant is running on the source. The Migration Assistant executable is included in the vCenter Server Appliance ISO image.
Source Windows server
vcenter55-01.lab.local
Migration assistant port
9123
SSO User name
administrator@vsphere.local
SSO Password
Do not run this installer from the source Windows Server. The source will be shutdown during the migration process and you will lose connectivity with this installer.
Back
Next
Finish
Cancel

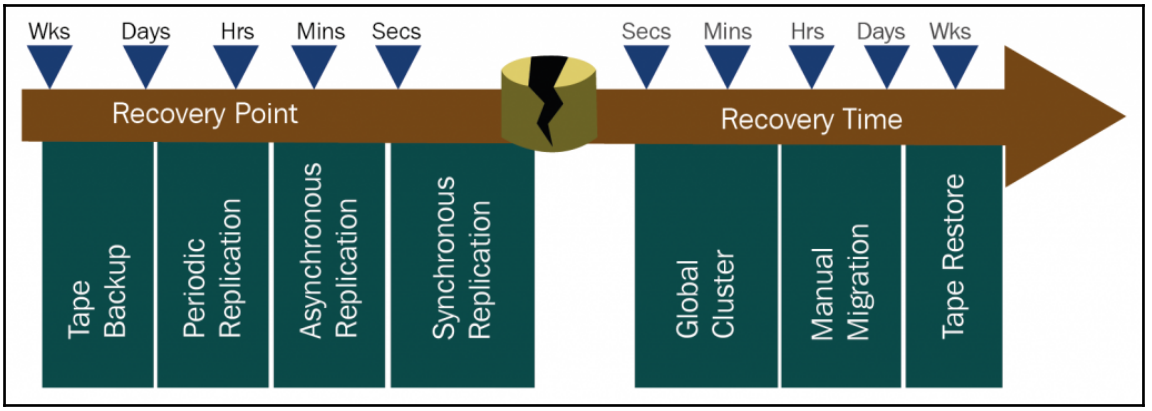

Messages
Error
Encountered an internal error. Traceback (most recent call last): File "/usr/lib/vmidentity/firstboot/vmidentity-firstboot.py", line 2018, in main vmidentityFB.boot() File "/usr/lib/vmidentity/firstboot/vmidentity-firstboot.py", line 349, in boot self.configureSTS(self.__stsRetryCount, self.__stsRetryInterval) File "/usr/lib/vmidentity/firstboot/vmidentity-firstboot.py", line 1479, in configureSTS self.startSTSService() File "/usr/lib/vmidentity/firstboot/vmidentity-firstboot.py", line 1141, in startSTSService returnCode = self.startService(self.__sts_service_name, self.__stsRetryCount * self.__stsRetryInterval) File "/usr/lib/vmidentity/firstboot/vmidentity-firstboot.py", line 88, in startService return service_start(svc_name, wait_time) File "/usr/lib/vmware/site-packages/cis/utils.py", line 784, in service_start raise ServiceStartException(svc_name) ServiceStartException: { "resolution": null, "detail": [{ "args": ["vmware-stsd"], "id": "install.ciscommon.service.failstart", "localized": "An error occurred while starting service 'vmware-stsd'", "translatable": "An error occurred while starting service '%
Logs
Close


Failure
A problem has occurred. The source vCenter Server might have been Powered Off during this process. Click on Messages for more information.
1. Copy data from source vCenter Server to target vCenter Server
2. Set up target vCenter Server and start services
3. Import copied data to target vCenter Server
35%
A problem occurred while - Importing VMware vSphere Update Manager data...
Messages
Close
Retry

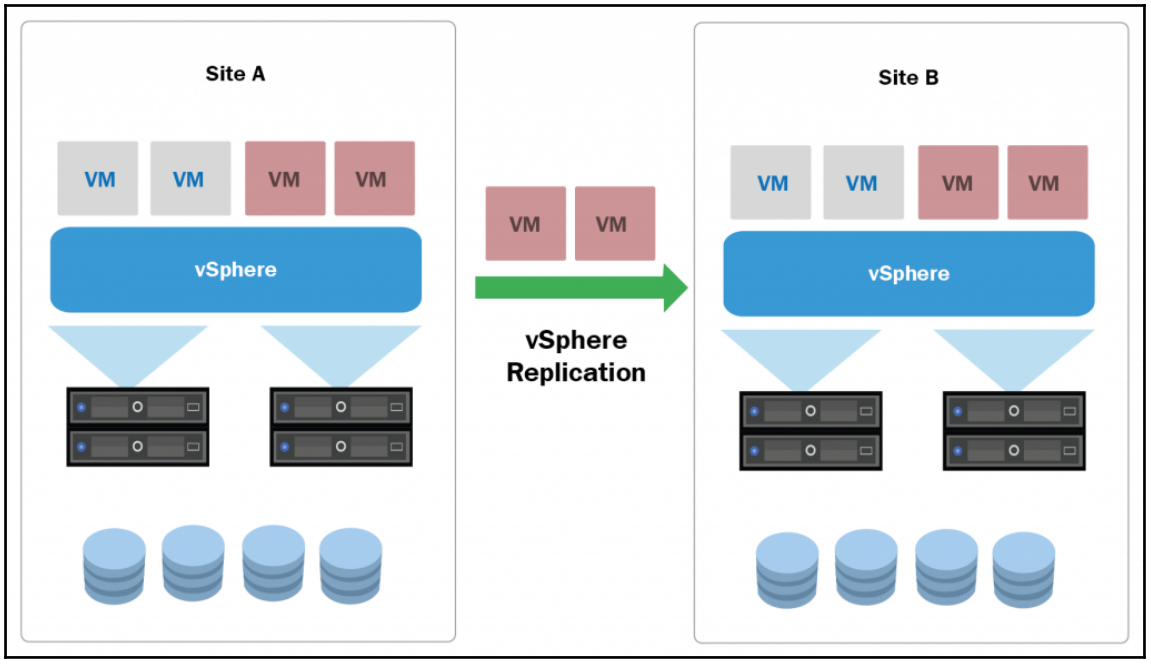
Chapter 12: Business Continuity and Disaster Recovery

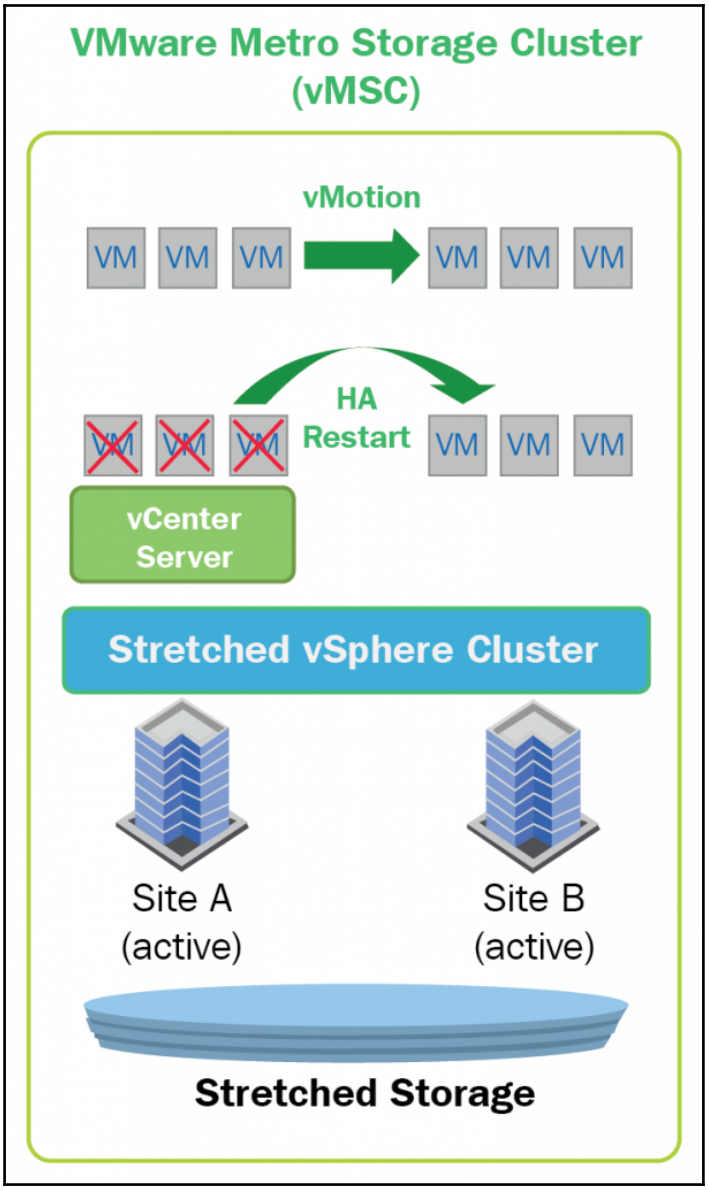


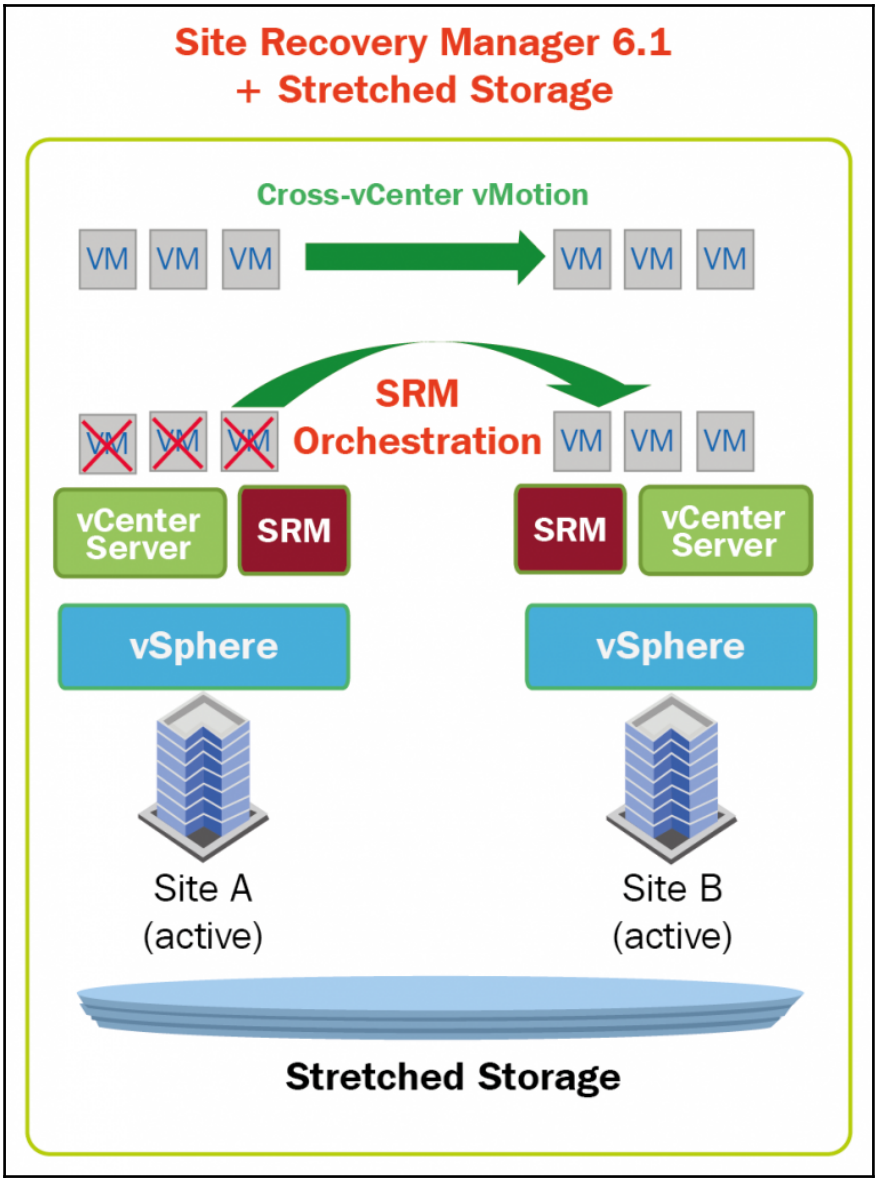

Business continuity planning lifecycle
Analysis
Solution design
Implementation
Testing and validation
Maintenance



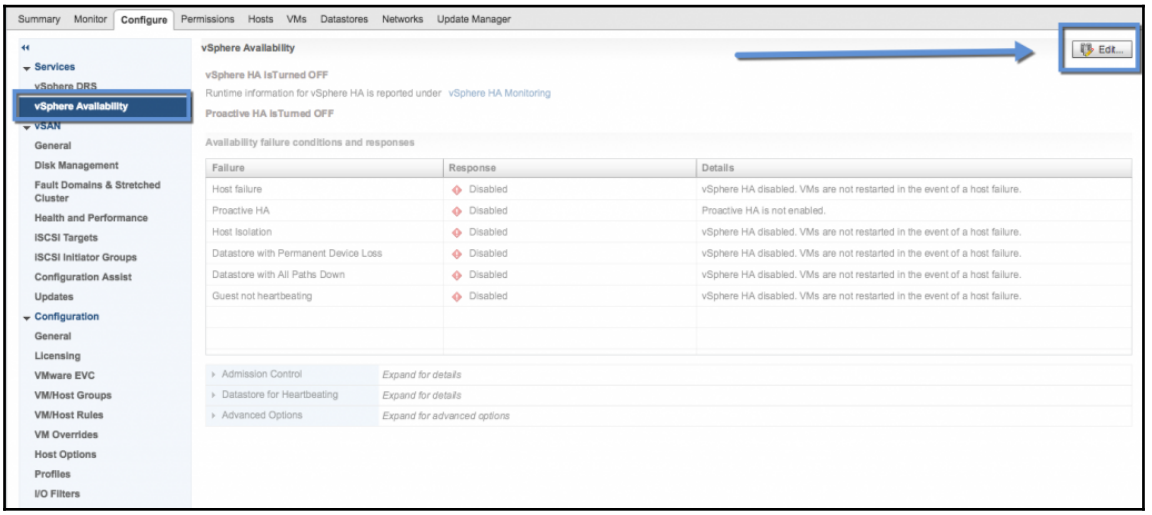
% Uptime	% Downtime	Downtime per Year	Downtime per Week
98%	2%	7.3 days	3 hrs 22 min
99%	1%	3.65 days	1 hrs 41 min
99.8%	0.2%	17 hrs 31min	20 min 10 sec
99.9%	0.1%	8 hrs 45 min	10 min 5 sec
99.99%	0.01%	52.5 min	1 min
99.999%	0.001%	5.25 min	6 sec
99.9999%	0.0001%	31.5 sec	0.6 sec

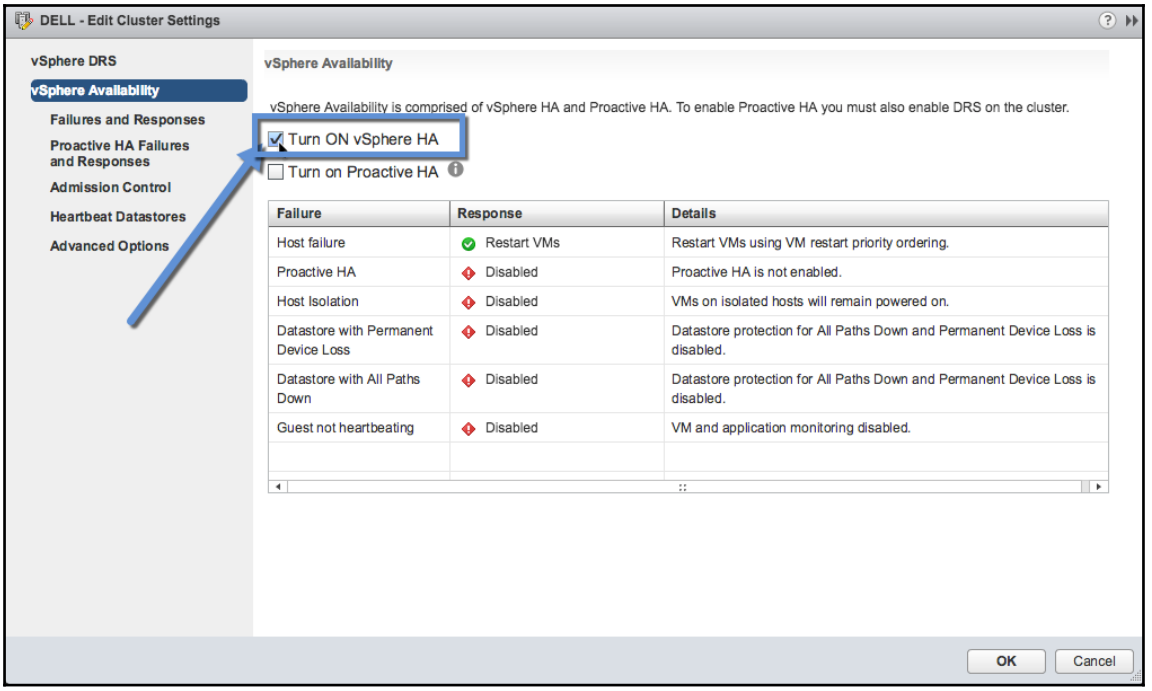

Site A
VM
VM
VM
VM
vSphere
VM
VM
vSphere
Replication
Site B
VM
VM
VM
VM
vSphere

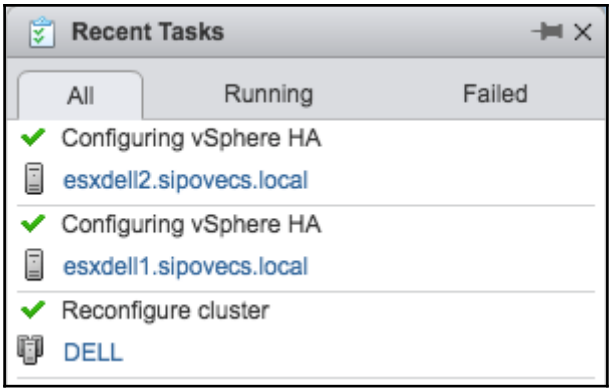

VMware Metro Storage Cluster
(vMSC)
vMotion
VM
VM
VM
VM
VM
VM
HA
Restart
VM
VM
VM
VM
VM
VM
vCenter
Server
Stretched vSphere Cluster
Site A
(active)
Site B
(active)
Stretched Storage

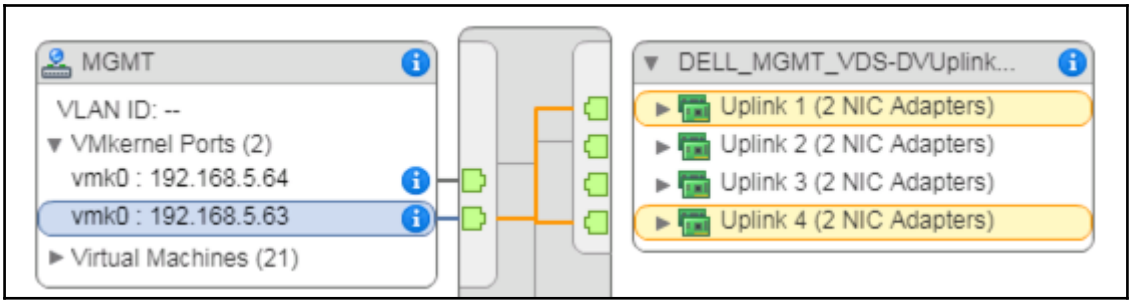

Site Recovery Manager 6.1
+ Stretched Storage
Cross-vCenter vMotion
VM
VM
VM
VM
VM
VM
SRM
Orchestration
VM
VM
VM
VM
VM
VM
vCenter Server
SRM
SRM
vCenter Server
vSphere
vSphere
Site A
(active)
Site B
(active)
Stretched Storage

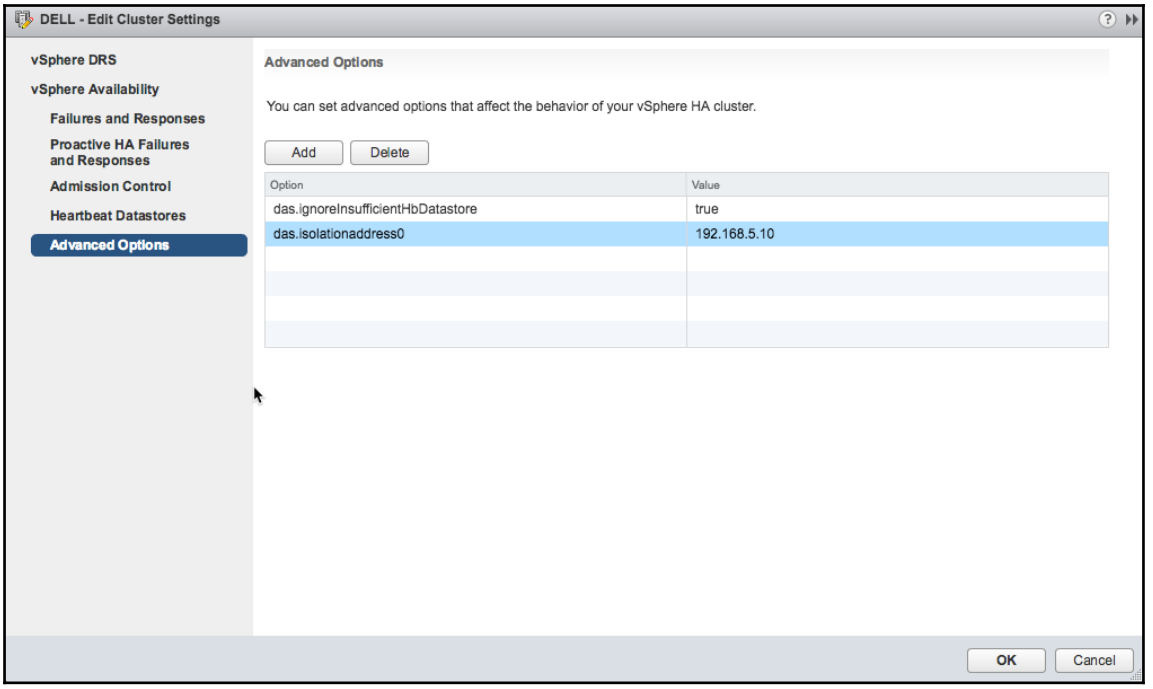
Chapter 13: Advanced Availability in vSphere 6.5

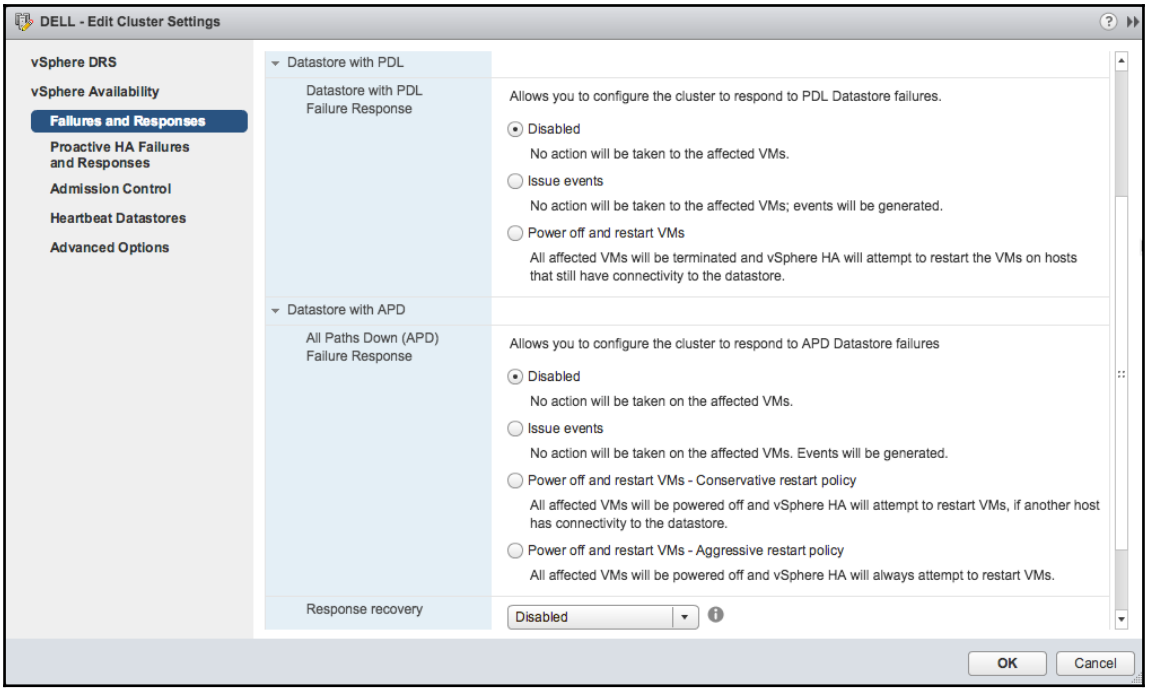



DELL - Edit Cluster Settings
vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
vSphere Availability
vSphere Availability is comprised of vSphere HA and Proactive HA. To enable Proactive HA you must also enable DRS on the cluster.
Turn ON vSphere HA
Turn on Proactive HA
Failure
Response
Details
Host failure
Restart VMs
Restart VMs using VM restart priority ordering.
Proactive HA
Disabled
Proactive HA is not enabled.
Host Isolation
Disabled
VMs on isolated hosts will remain powered on.
Datastore with Permanent Device Loss
Disabled
Datastore protection for All Paths Down and Permanent Device Loss is disabled.
Datastore with All Paths Down
Disabled
Datastore protection for All Paths Down and Permanent Device Loss is disabled.
Guest not heartbeating
Disabled
VM and application monitoring disabled.
OK
Cancel

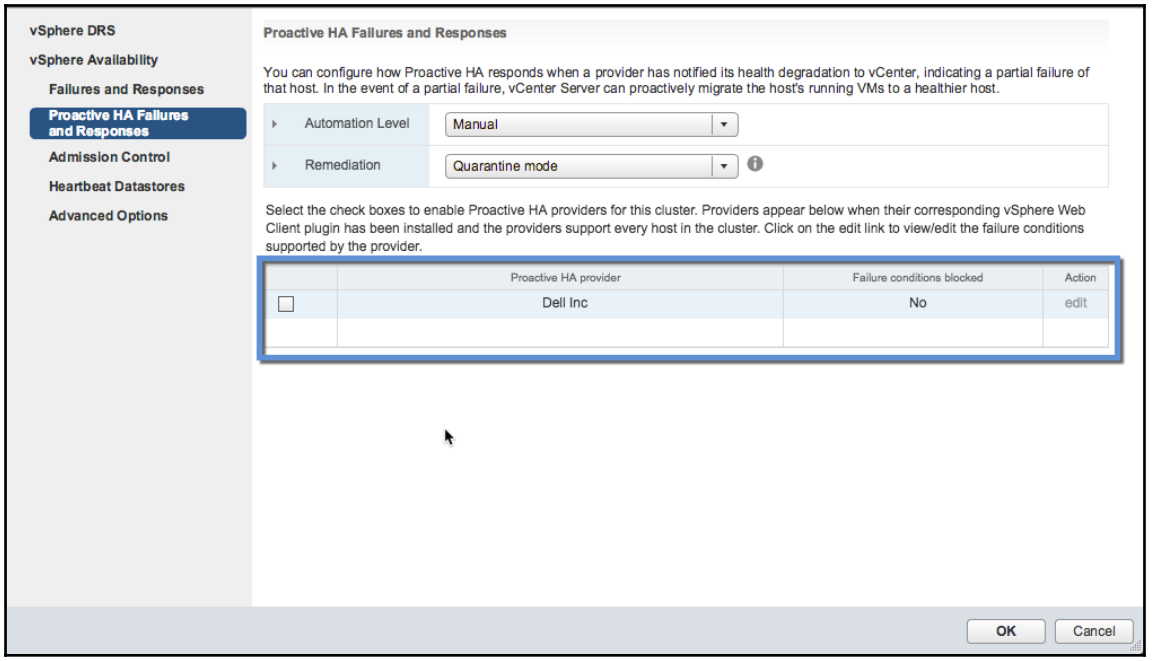

Recent Tasks
All
Running
Failed
Configuring vSphere HA
esxdell2.sipovecs.local
Configuring vSphere HA
esxdell1.sipovecs.local
Reconfigure cluster
DELL

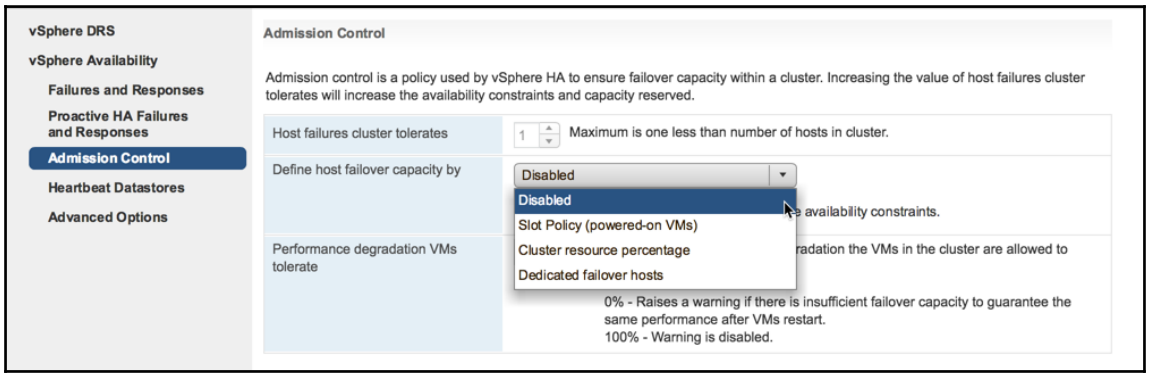

MGMT
VLAN ID: --
VMkernel Ports (2)
vmk0 : 192.168.5.64
vmk0 : 192.168.5.63
Virtual Machines (21)
DELL_MGMT_VDS-DVUplink...
Uplink 1 (2 NIC Adapters)
Uplink 2 (2 NIC Adapters)
Uplink 3 (2 NIC Adapters)
Uplink 4 (2 NIC Adapters)

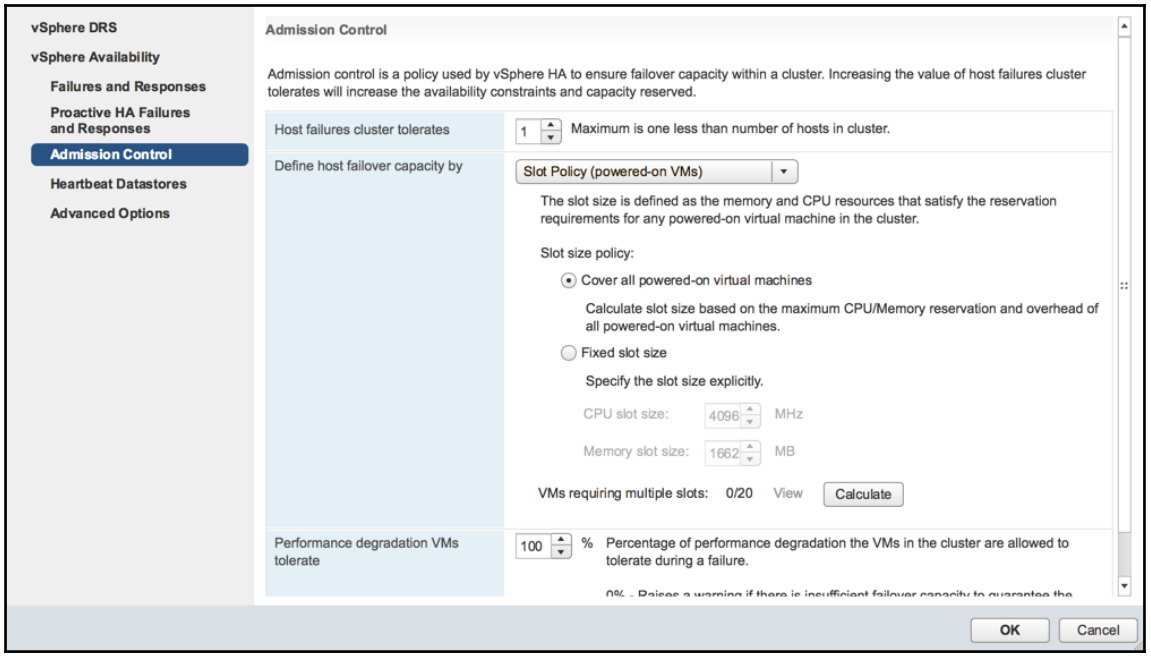

DELL - Edit Cluster Settings
vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Advanced Options
You can set advanced options that affect the behavior of your vSphere HA cluster.
Add
Delete
Option
Value
das.ignoreInsufficientHbDatastore
true
das.isolationaddress0
192.168.5.10
OK
Cancel

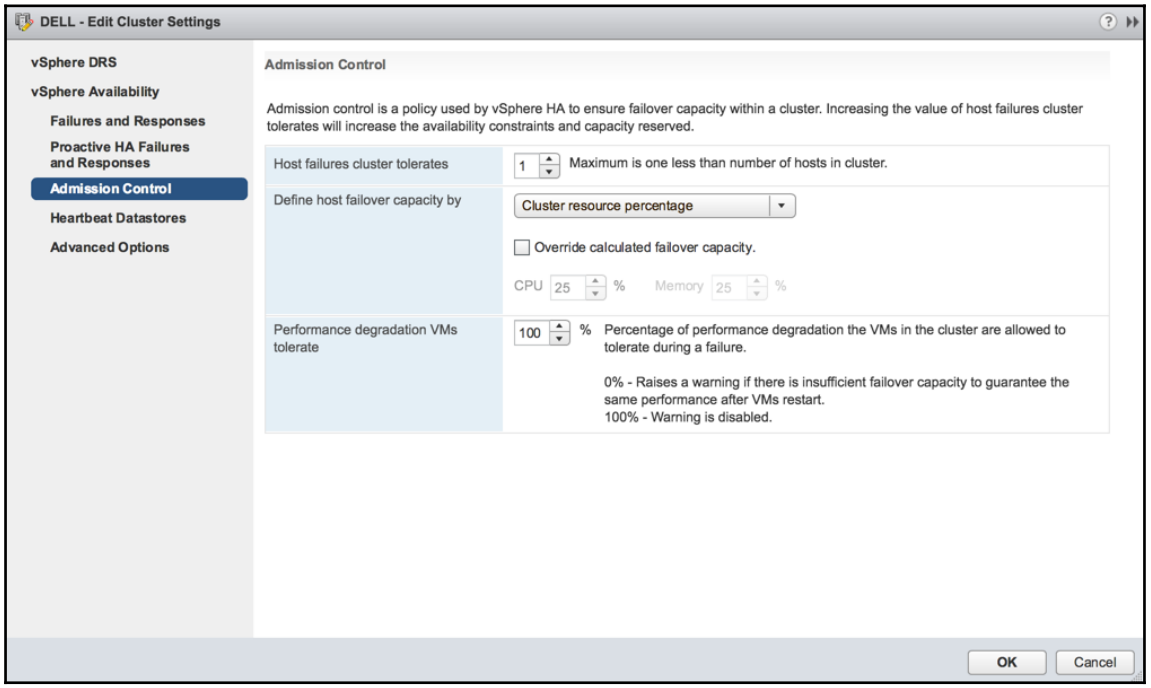

DELL - Edit Cluster Settings
vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Datastore with PDL
Datastore with PDL Failure Response
Allows you to configure the cluster to respond to PDL Datastore failures.
Disabled
No action will be taken to the affected VMs.
Issue events
No action will be taken to the affected VMs; events will be generated.
Power off and restart VMs
All affected VMs will be terminated and vSphere HA will attempt to restart the VMs on hosts that still have connectivity to the datastore.
Datastore with APD
All Paths Down (APD) Failure Response
Allows you to configure the cluster to respond to APD Datastore failures
Disabled
No action will be taken on the affected VMs.
Issue events
No action will be taken on the affected VMs. Events will be generated.
Power off and restart VMs - Conservative restart policy
All affected VMs will be powered off and vSphere HA will attempt to restart VMs, if another host has connectivity to the datastore.
Power off and restart VMs - Aggressive restart policy
All affected VMs will be powered off and vSphere HA will always attempt to restart VMs.
Response recovery
Disabled
OK
Cancel

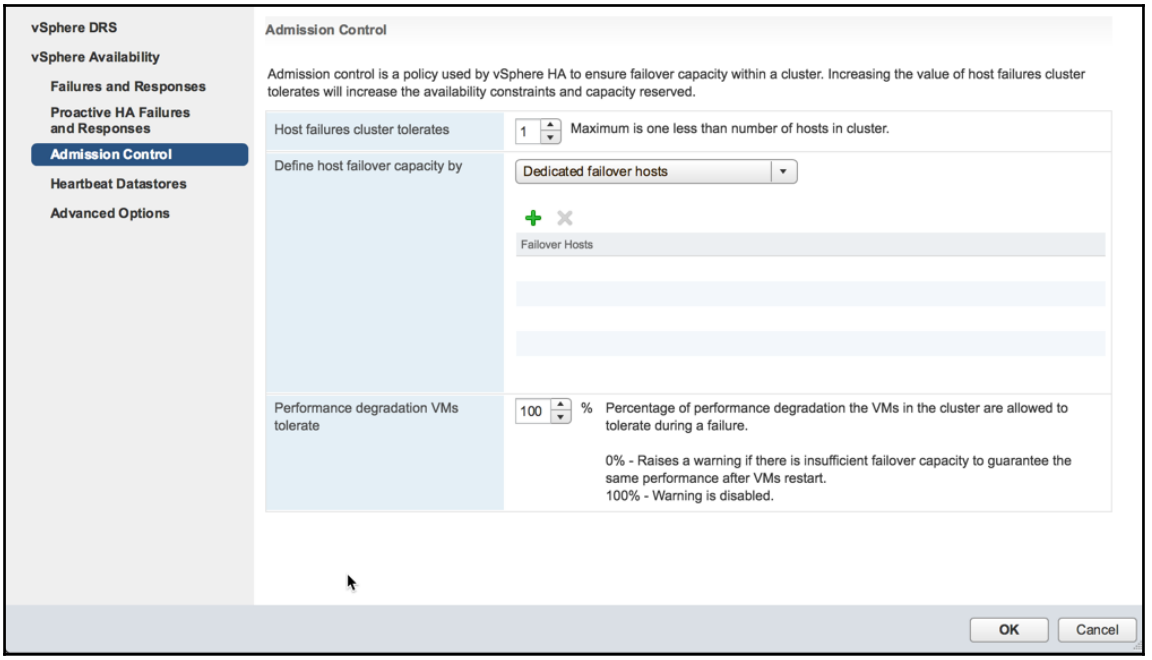

vSphere Availability
vSphere Availability is comprised of vS
Turn ON vSphere HA
Turn on Proactive HA

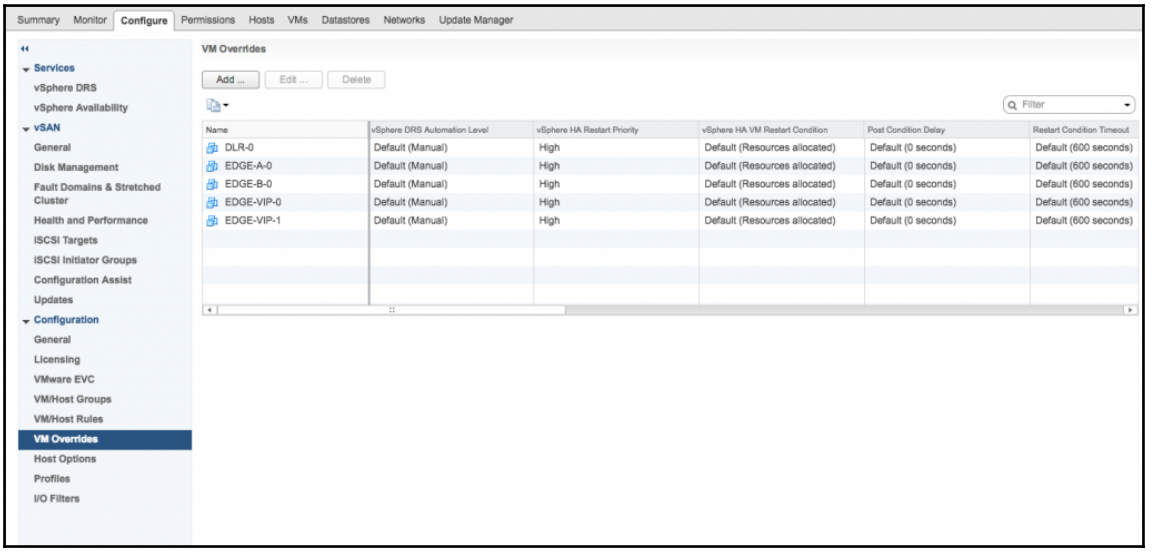

vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Proactive HA Failures and Responses
You can configure how Proactive HA responds when a provider has notified its health degradation to vCenter, indicating a partial failure of that host. In the event of a partial failure, vCenter Server can proactively migrate the host's running VMs to a healthier host.
Automation Level
Manual
Remediation
Quarantine mode
Select the check boxes to enable Proactive HA providers for this cluster. Providers appear below when their corresponding vSphere Web Client plugin has been installed and the providers support every host in the cluster. Click on the edit link to view/edit the failure conditions supported by the provider.
Proactive HA provider
Failure conditions blocked
Action
Dell Inc
No
edit
OK
Cancel

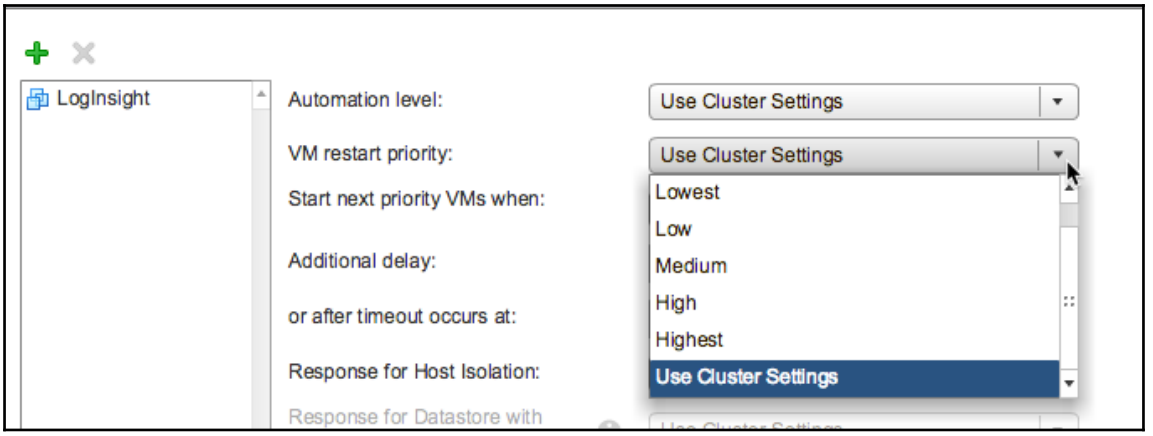

vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Admission Control
Admission control is a policy used by vSphere HA to ensure failover capacity within a cluster. Increasing the value of host failures cluster tolerates will increase the availability constraints and capacity reserved.
Host failures cluster tolerates
1
Maximum is one less than number of hosts in cluster.
Define host failover capacity by
Disabled
Disabled
Slot Policy (powered-on VMs)
Cluster resource percentage
Dedicated failover hosts
availability constraints.
Performance degradation VMs tolerate
radation the VMs in the cluster are allowed to
0% - Raises a warning if there is insufficient failover capacity to guarantee the same performance after VMs restart.
100% - Warning is disabled.

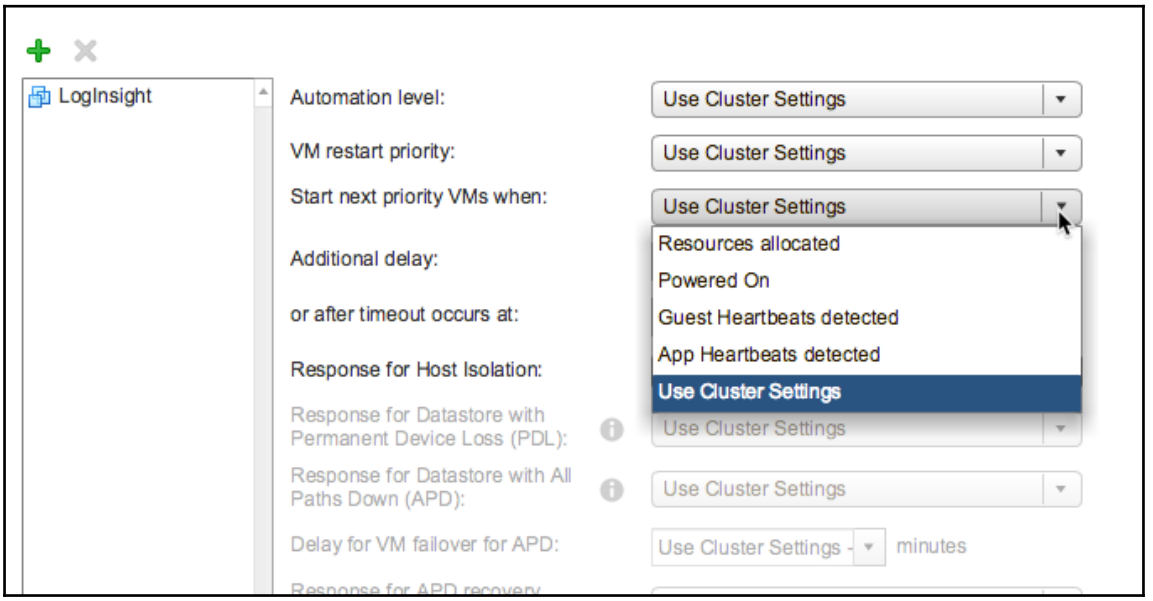

vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Admission Control
Admission control is a policy used by vSphere HA to ensure failover capacity within a cluster. Increasing the value of host failures cluster tolerates will increase the availability constraints and capacity reserved.
Host failures cluster tolerates
1
Maximum is one less than number of hosts in cluster.
Define host failover capacity by
Slot Policy (powered-on VMs)
The slot size is defined as the memory and CPU resources that satisfy the reservation requirements for any powered-on virtual machine in the cluster.
Slot size policy:
Cover all powered-on virtual machines
Calculate slot size based on the maximum CPU/Memory reservation and overhead of all powered-on virtual machines.
Fixed slot size
Specify the slot size explicitly.
CPU slot size:
4096
MHz
Memory slot size:
1662
MB
VMs requiring multiple slots:
0/20
View
Calculate
Performance degradation VMs tolerate
100
%
Percentage of performance degradation the VMs in the cluster are allowed to tolerate during a failure.
OK
Cancel

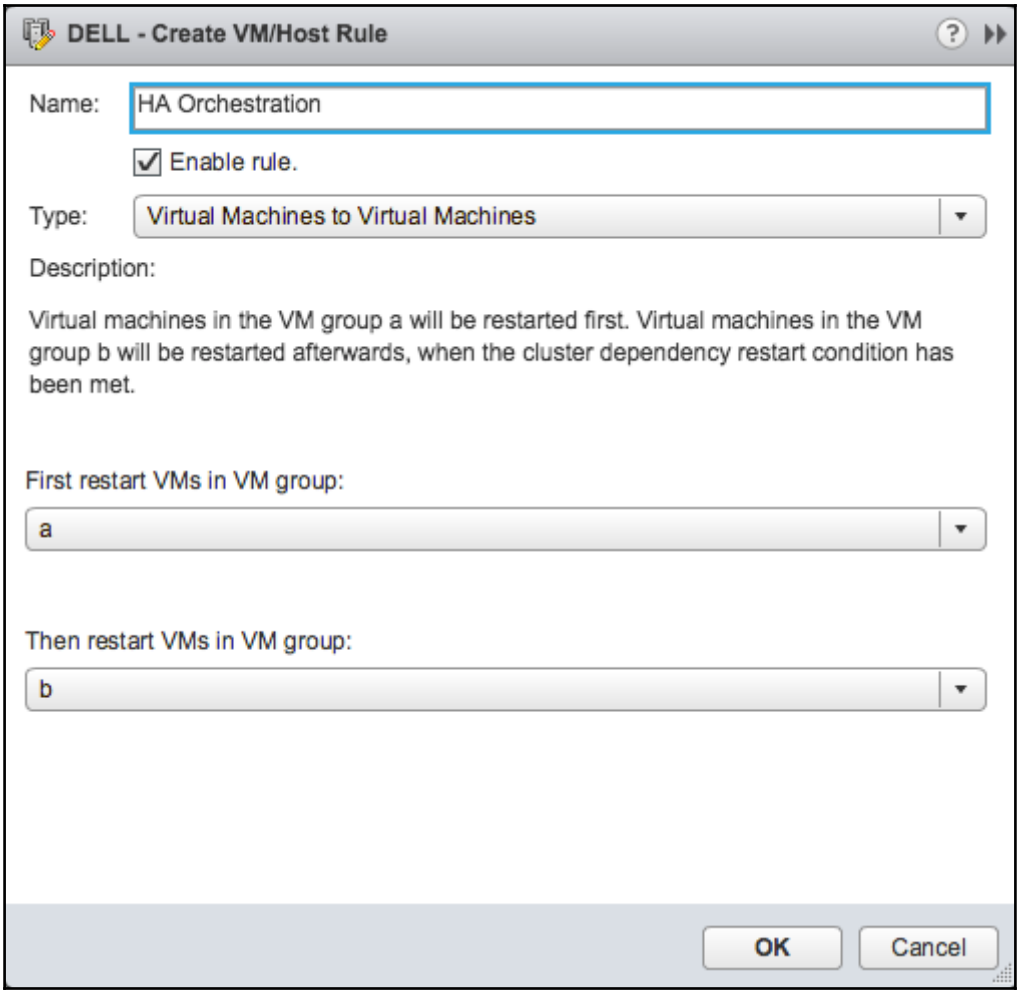

DELL - Edit Cluster Settings
vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Admission Control
Admission control is a policy used by vSphere HA to ensure failover capacity within a cluster. Increasing the value of host failures cluster tolerates will increase the availability constraints and capacity reserved.
Host failures cluster tolerates
1
Maximum is one less than number of hosts in cluster.
Define host failover capacity by
Cluster resource percentage
Override calculated failover capacity.
CPU
25
%
Memory
25
%
Performance degradation VMs tolerate
100
%
Percentage of performance degradation the VMs in the cluster are allowed to tolerate during a failure.
0% - Raises a warning if there is insufficient failover capacity to guarantee the same performance after VMs restart.
100% - Warning is disabled.
OK
Cancel

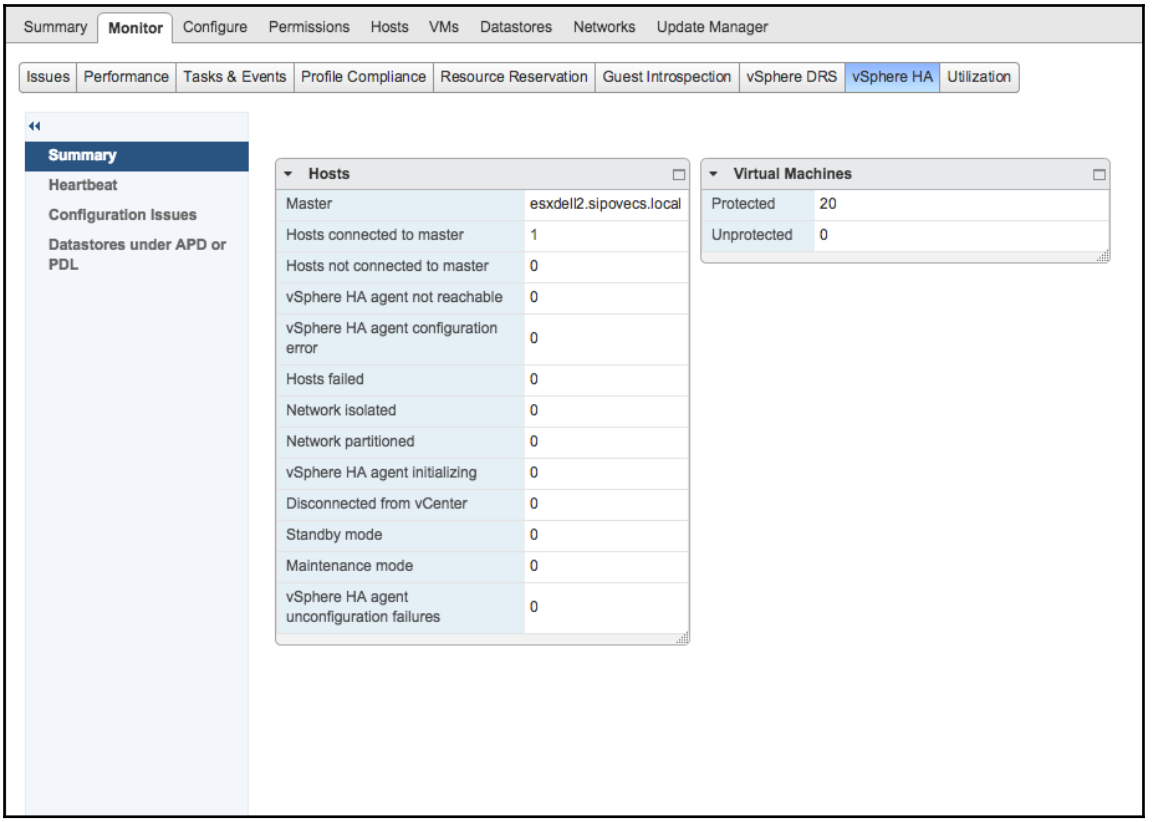

vSphere DRS
vSphere Availability
Failures and Responses
Proactive HA Failures and Responses
Admission Control
Heartbeat Datastores
Advanced Options
Admission Control
Admission control is a policy used by vSphere HA to ensure failover capacity within a cluster. Increasing the value of host failures cluster tolerates will increase the availability constraints and capacity reserved.
Host failures cluster tolerates
1
Maximum is one less than number of hosts in cluster.
Define host failover capacity by
Dedicated failover hosts
Failover Hosts
Performance degradation VMs tolerate
100
%
Percentage of performance degradation the VMs in the cluster are allowed to tolerate during a failure.
0% - Raises a warning if there is insufficient failover capacity to guarantee the same performance after VMs restart.
100% - Warning is disabled.
OK
Cancel

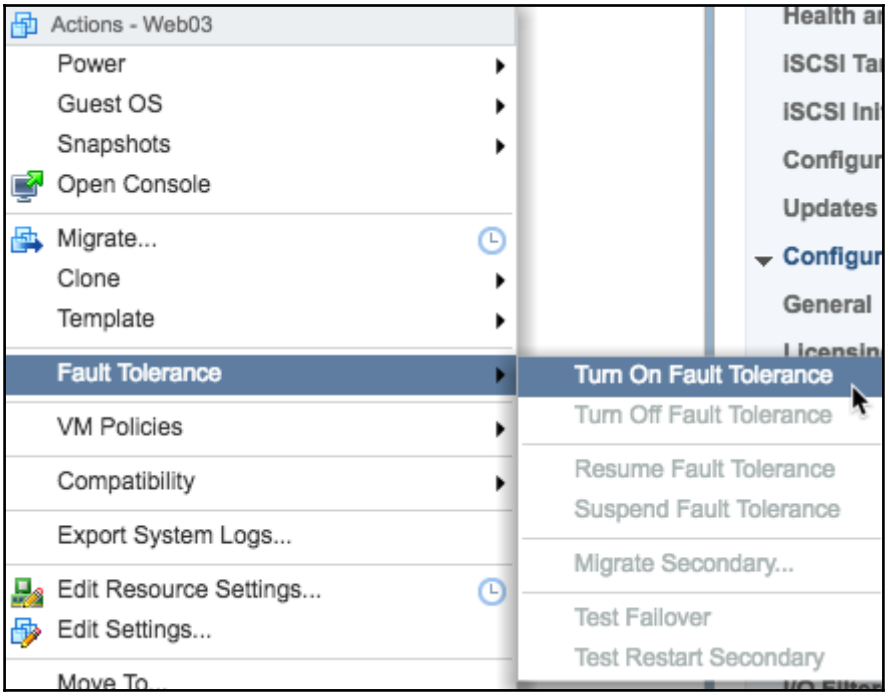

Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Update Manager
Services
vSphere DRS
vSphere Availability
vSAN
General
Disk Management
Fault Domains & Stretched Cluster
Health and Performance
iSCSI Targets
iSCSI Initiator Groups
Configuration Assist
Updates
Configuration
General
Licensing
VMware EVC
VM/Host Groups
VM/Host Rules
VM Overrides
Host Options
Profiles
I/O Filters
VM Overrides
Add ...
Edit ...
Delete
Filter
Name
vSphere DRS Automation Level
vSphere HA Restart Priority
vSphere HA VM Restart Condition
Post Condition Delay
Restart Condition Timeout
DLR-0
EDGE-A-0
EDGE-B-0
EDGE-VIP-0
EDGE-VIP-1
Default (Manual)
High
Default (Resources allocated)
Default (0 seconds)
Default (600 seconds)

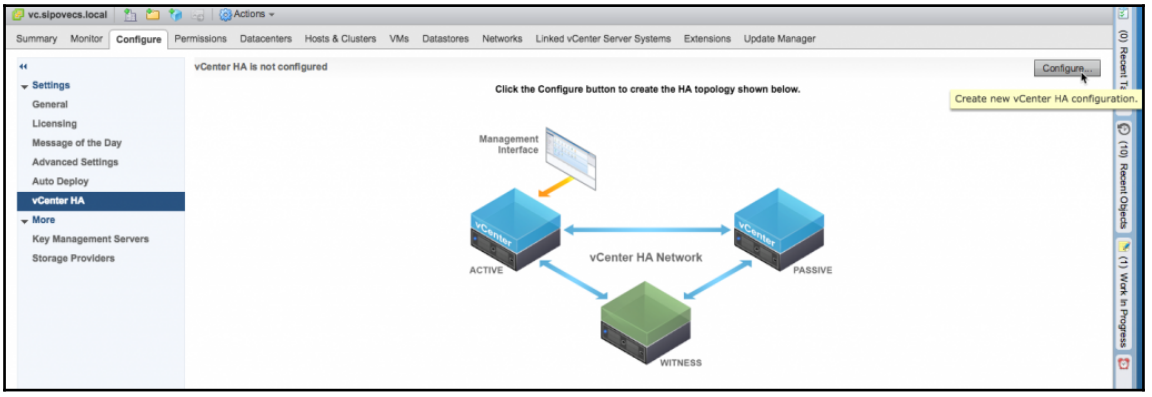

LogInsight
Automation level:
Use Cluster Settings
VM restart priority:
Use Cluster Settings
Start next priority VMs when:
Additional delay:
or after timeout occurs at:
Response for Host Isolation:
Response for Datastore with
Lowest
Low
Medium
High
Highest
Use Cluster Settings

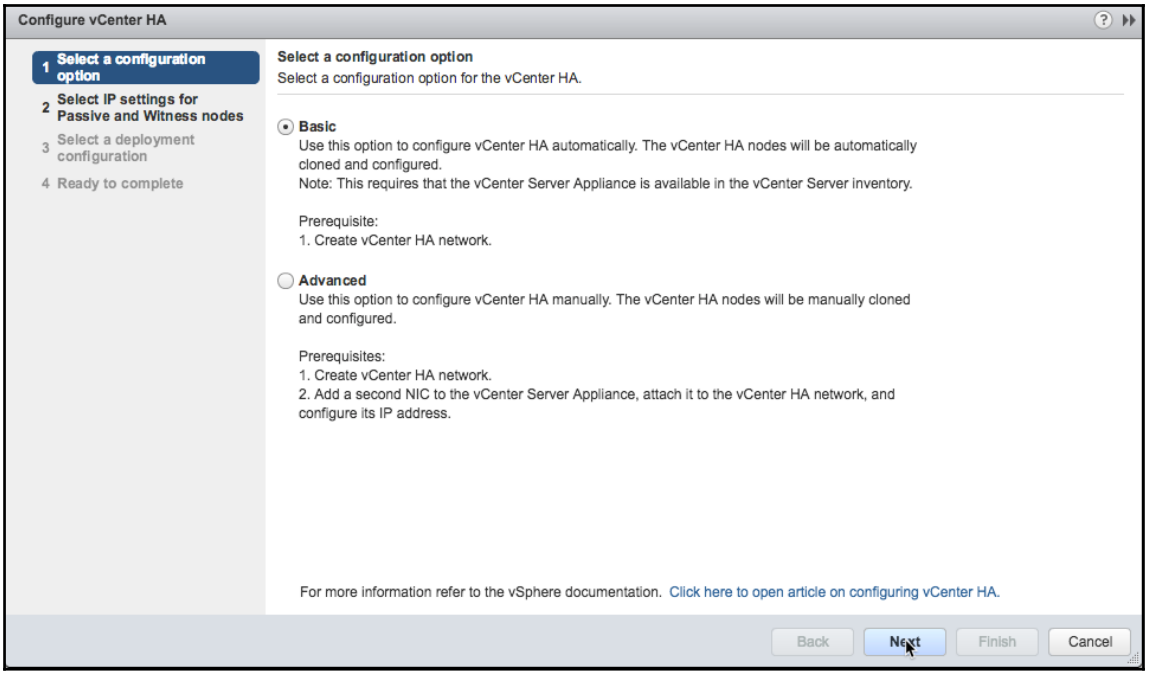

LogInsight
Automation level:
Use Cluster Settings
VM restart priority:
Use Cluster Settings
Start next priority VMs when:
Use Cluster Settings
Additional delay:
or after timeout occurs at:
Response for Host Isolation:
Response for Datastore with Permanent Device Loss (PDL):
Use Cluster Settings
Response for Datastore with All Paths Down (APD):
Use Cluster Settings
Delay for VM failover for APD:
Use Cluster Settings
minutes
Resources allocated
Powered On
Guest Heartbeats detected
App Heartbeats detected
Use Cluster Settings

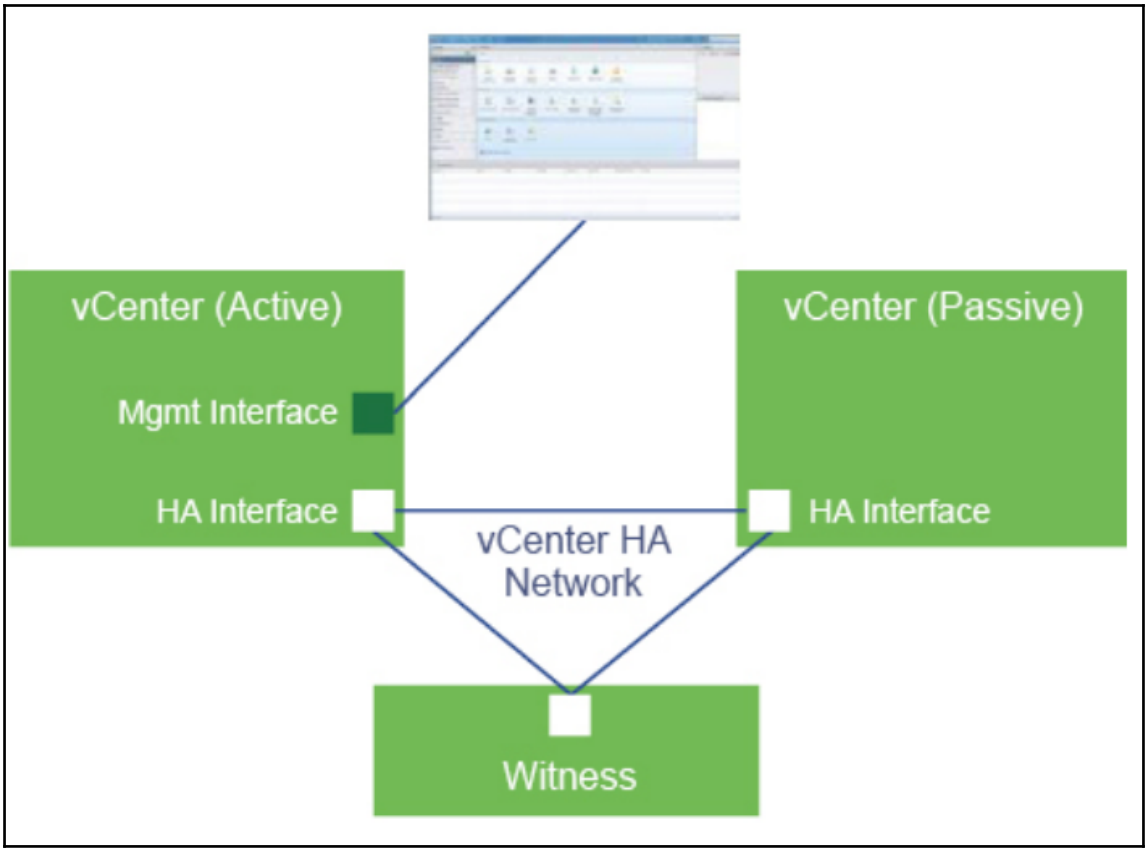

DELL - Create VM/Host Rule
Name:
HA Orchestration
Enable rule.
Type:
Virtual Machines to Virtual Machines
Description:
Virtual machines in the VM group a will be restarted first. Virtual machines in the VM group b will be restarted afterwards, when the cluster dependency restart condition has been met.
First restart VMs in VM group:
a
Then restart VMs in VM group:
b
OK
Cancel

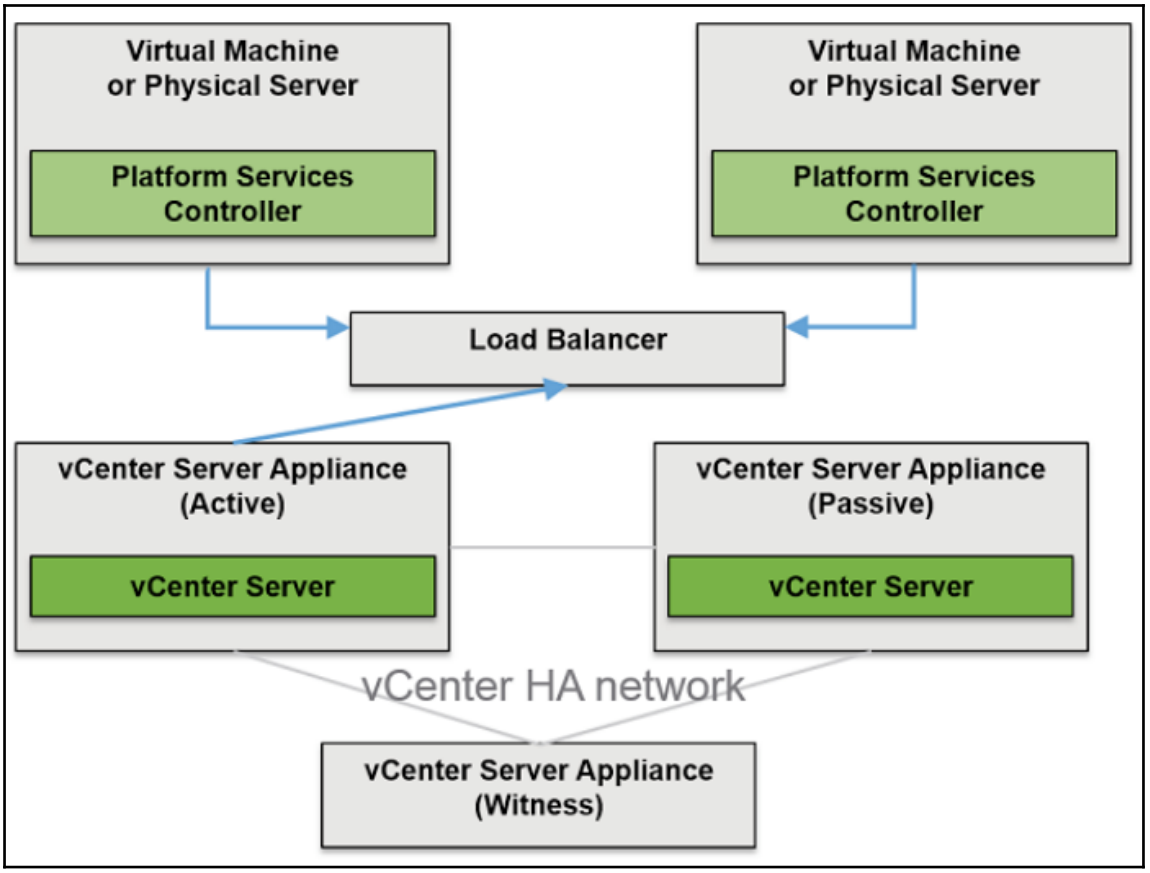

Summary
Monitor
Configure
Permissions
Hosts
VMs
Datastores
Networks
Update Manager
Issues
Performance
Tasks & Events
Profile Compliance
Resource Reservation
Guest Introspection
vSphere DRS
vSphere HA
Utilization
Summary
Heartbeat
Configuration Issues
Datastores under APD or PDL
Hosts
Master
esxdell2.sipovecs.local
Hosts connected to master
1
Hosts not connected to master
0
vSphere HA agent not reachable
0
vSphere HA agent configuration error
0
Hosts failed
0
Network isolated
0
Network partitioned
0
vSphere HA agent initializing
0
Disconnected from vCenter
0
Standby mode
0
Maintenance mode
0
vSphere HA agent unconfiguration failures
0
Virtual Machines
Protected
20
Unprotected
0

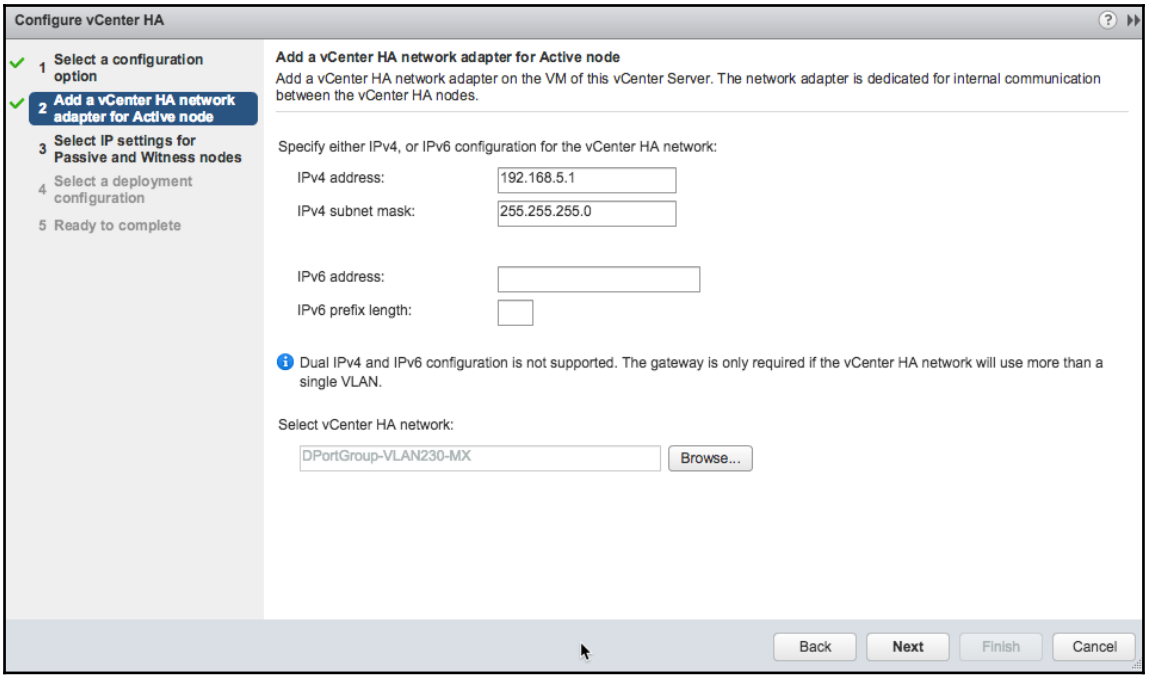

Actions - Web03
Power
Guest OS
Snapshots
Open Console
Migrate...
Clone
Template
Fault Tolerance
VM Policies
Compatibility
Export System Logs...
Edit Resource Settings...
Edit Settings...
Move To...
Turn On Fault Tolerance
Turn Off Fault Tolerance
Resume Fault Tolerance
Suspend Fault Tolerance
Migrate Secondary...
Test Failover
Test Restart Secondary
Health a
ISCSI Ta
ISCSI Ini
Configur
Updates
Configur
General

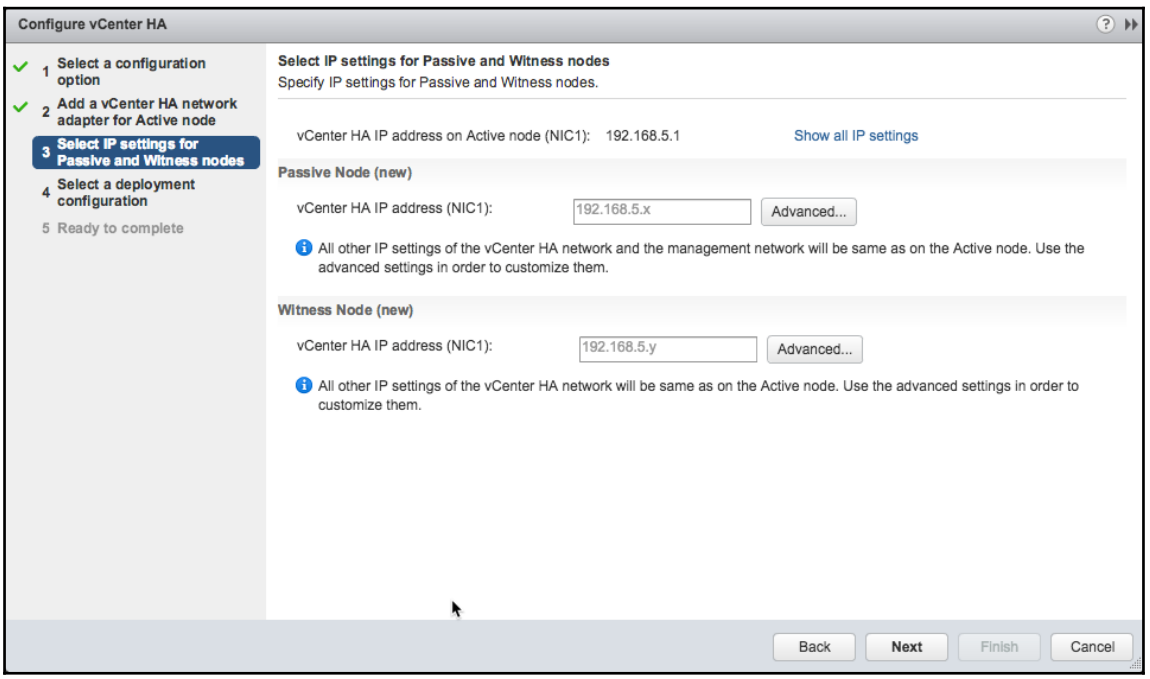

vc.sipovecs.local
Actions
Summary
Monitor
Configure
Permissions
Datacenters
Hosts & Clusters
VMs
Datastores
Networks
Linked vCenter Server Systems
Extensions
Update Manager
Settings
General
Licensing
Message of the Day
Advanced Settings
Auto Deploy
vCenter HA
More
Key Management Servers
Storage Providers
vCenter HA is not configured
Configure...
Click the Configure button to create the HA topology shown below.
Create new vCenter HA configuration.
Management Interface
vCenter
ACTIVE
vCenter HA Network
vCenter
PASSIVE
WITNESS
(0) Recent Ta
(10) Recent Objects
(1) Work in Progress

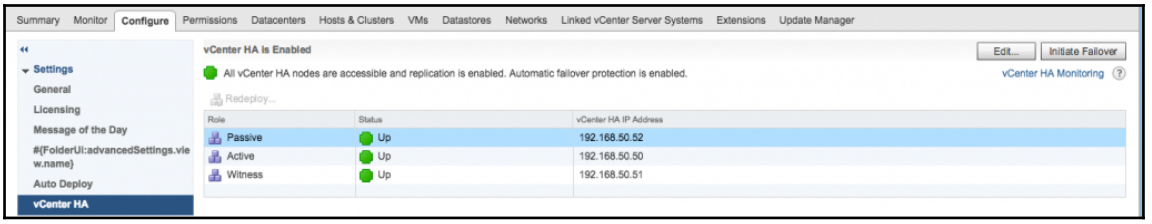

Configure vCenter HA
1 Select a configuration option
2 Select IP settings for Passive and Witness nodes
3 Select a deployment configuration
4 Ready to complete
Select a configuration option
Select a configuration option for the vCenter HA.
Basic
Use this option to configure vCenter HA automatically. The vCenter HA nodes will be automatically cloned and configured.
Note: This requires that the vCenter Server Appliance is available in the vCenter Server inventory.
Prerequisite:
1. Create vCenter HA network.
Advanced
Use this option to configure vCenter HA manually. The vCenter HA nodes will be manually cloned and configured.
Prerequisites:
1. Create vCenter HA network.
2. Add a second NIC to the vCenter Server Appliance, attach it to the vCenter HA network, and configure its IP address.
For more information refer to the vSphere documentation. Click here to open article on configuring vCenter HA.
Back
Next
Finish
Cancel

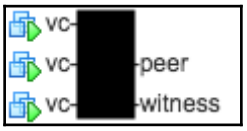

vCenter (Active)
Mgmt Interface
HA Interface
vCenter (Passive)
HA Interface
vCenter HA
Network
Witness


Virtual Machine
or Physical Server
Platform Services
Controller
Virtual Machine
or Physical Server
Platform Services
Controller
Load Balancer
vCenter Server Appliance
(Active)
vCenter Server
vCenter Server Appliance
(Passive)
vCenter Server
vCenter HA network
vCenter Server Appliance
(Witness)

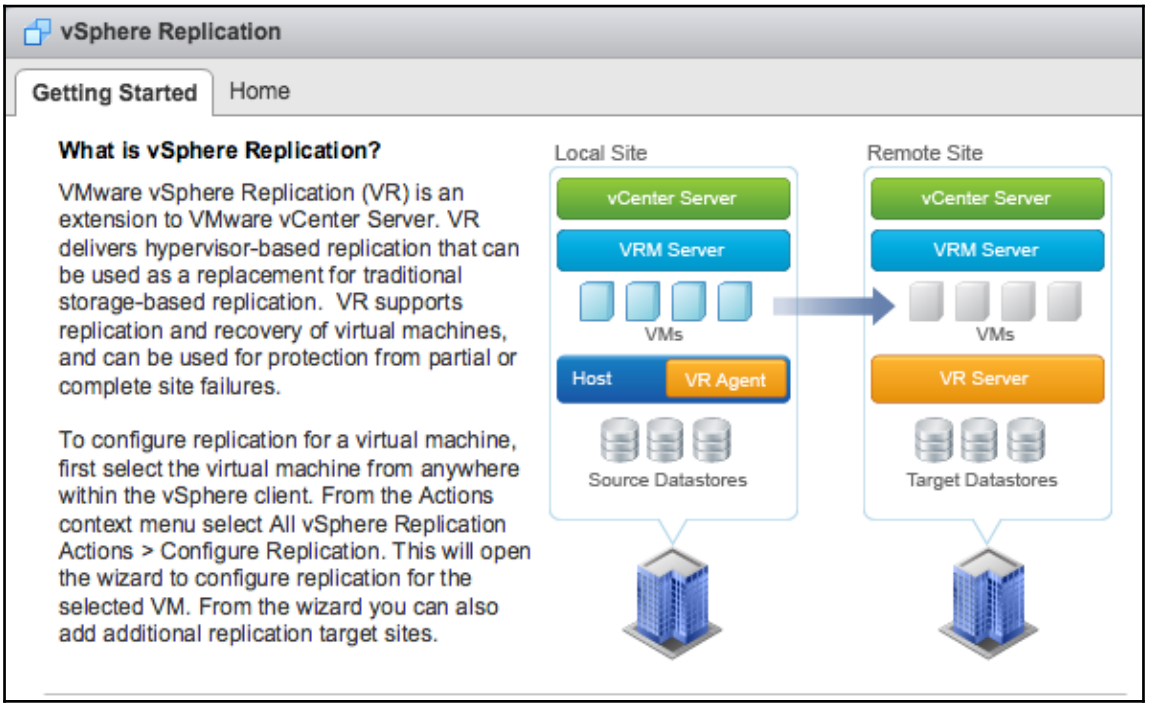

Configure vCenter HA
1 Select a configuration option
2 Add a vCenter HA network adapter for Active node
3 Select IP settings for Passive and Witness nodes
4 Select a deployment configuration
5 Ready to complete
Add a vCenter HA network adapter for Active node
Add a vCenter HA network adapter on the VM of this vCenter Server. The network adapter is dedicated for internal communication between the vCenter HA nodes.
Specify either IPv4, or IPv6 configuration for the vCenter HA network:
IPv4 address:
192.168.5.1
IPv4 subnet mask:
255.255.255.0
IPv6 address:
IPv6 prefix length:
Dual IPv4 and IPv6 configuration is not supported. The gateway is only required if the vCenter HA network will use more than a single VLAN.
Select vCenter HA network:
DPortGroup-VLAN230-MX
Browse...
Back
Next
Finish
Cancel


Configure vCenter HA
1 Select a configuration option
2 Add a vCenter HA network adapter for Active node
3 Select IP settings for Passive and Witness nodes
4 Select a deployment configuration
5 Ready to complete
Select IP settings for Passive and Witness nodes
Specify IP settings for Passive and Witness nodes.
vCenter HA IP address on Active node (NIC1): 192.168.5.1
Show all IP settings
Passive Node (new)
vCenter HA IP address (NIC1):
192.168.5.x
Advanced...
All other IP settings of the vCenter HA network and the management network will be same as on the Active node. Use the advanced settings in order to customize them.
Witness Node (new)
vCenter HA IP address (NIC1):
192.168.5.y
Advanced...
All other IP settings of the vCenter HA network will be same as on the Active node. Use the advanced settings in order to customize them.
Back
Next
Finish
Cancel

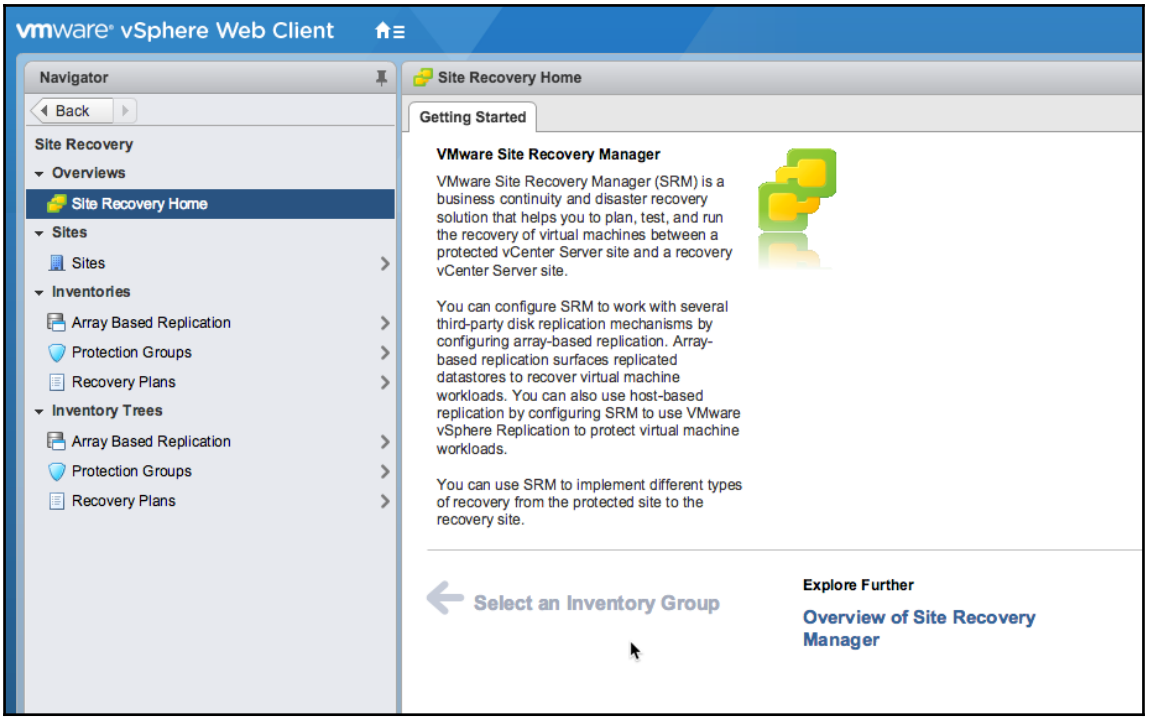

Summary
Monitor
Configure
Permissions
Datacenters
Hosts & Clusters
VMs
Datastores
Networks
Linked vCenter Server Systems
Extensions
Update Manager
Settings
General
Licensing
Message of the Day
#{FolderUI:advancedSettings.view.name}
Auto Deploy
vCenter HA
vCenter HA is Enabled
Edit...
Initiate Failover
All vCenter HA nodes are accessible and replication is enabled. Automatic failover protection is enabled.
vCenter HA Monitoring
Redeploy...
Role
Status
vCenter HA IP Address
Passive
Up
192.168.50.52
Active
Up
192.168.50.50
Witness
Up
192.168.50.51

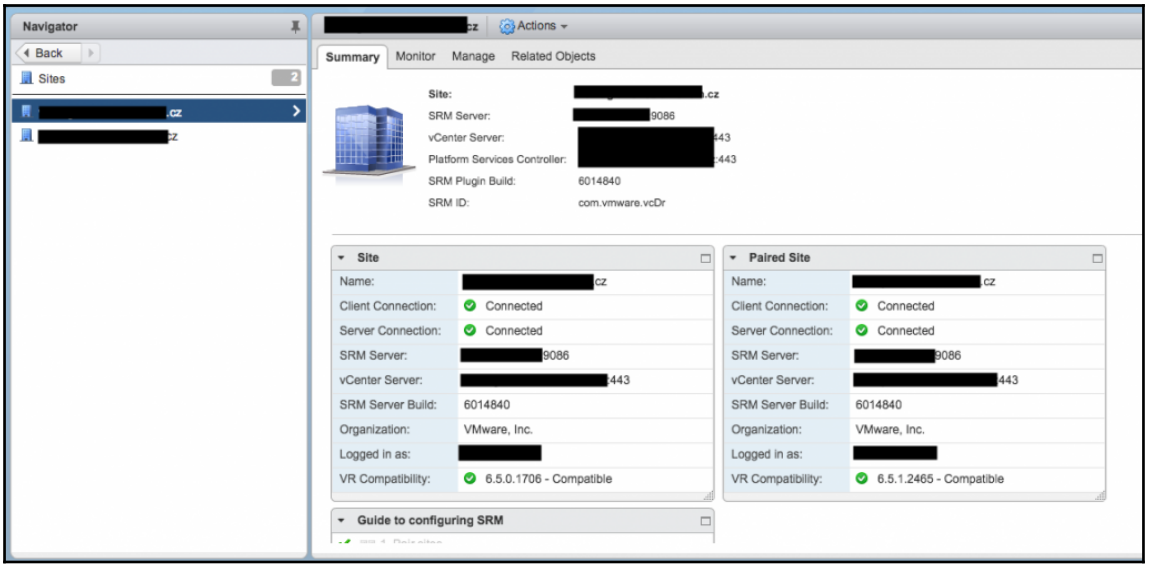

vc-
vc-
peer
vc-
witness


vSphere
Replication


vSphere Replication
Getting Started
Home
What is vSphere Replication?
VMware vSphere Replication (VR) is an extension to VMware vCenter Server. VR delivers hypervisor-based replication that can be used as a replacement for traditional storage-based replication. VR supports replication and recovery of virtual machines, and can be used for protection from partial or complete site failures.
To configure replication for a virtual machine, first select the virtual machine from anywhere within the vSphere client. From the Actions context menu select All vSphere Replication Actions > Configure Replication. This will open the wizard to configure replication for the selected VM. From the wizard you can also add additional replication target sites.
Local Site
vCenter Server
VRM Server
VMs
Host
VR Agent
Source Datastores
Remote Site
vCenter Server
VRM Server
VMs
VR Server
Target Datastores


All vSphere Replication Actions
Configure Replication...

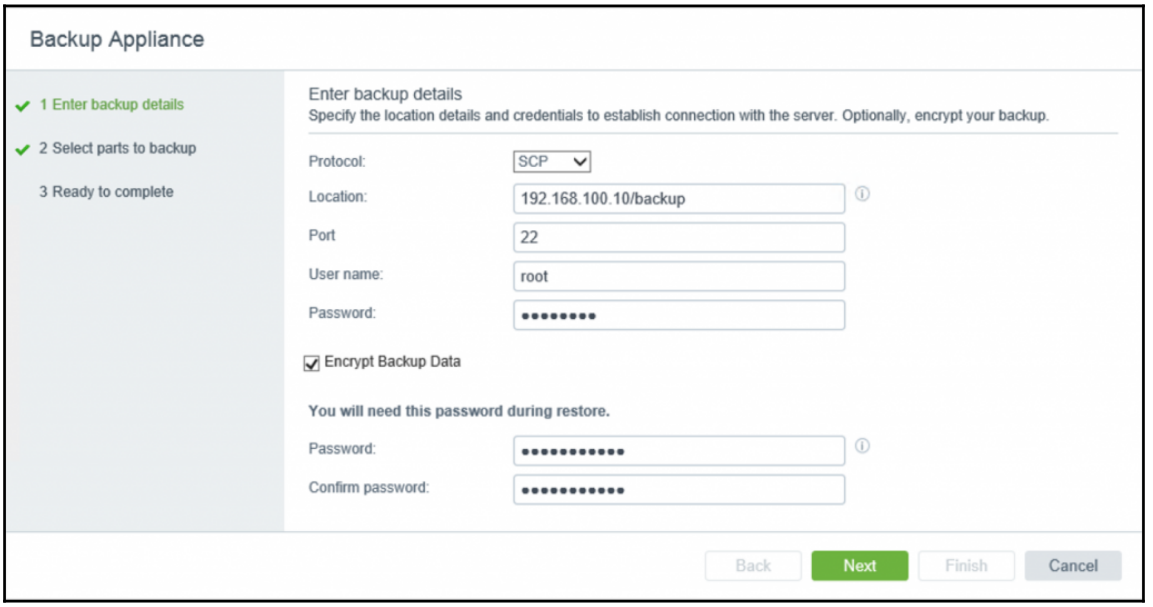

vmware vSphere Web Client
Navigator
Back
Site Recovery
Overviews
Site Recovery Home
Sites
Sites
Inventories
Array Based Replication
Protection Groups
Recovery Plans
Inventory Trees
Array Based Replication
Protection Groups
Recovery Plans
Site Recovery Home
Getting Started
VMware Site Recovery Manager
VMware Site Recovery Manager (SRM) is a business continuity and disaster recovery solution that helps you to plan, test, and run the recovery of virtual machines between a protected vCenter Server site and a recovery vCenter Server site.
You can configure SRM to work with several third-party disk replication mechanisms by configuring array-based replication. Array-based replication surfaces replicated datastores to recover virtual machine workloads. You can also use host-based replication by configuring SRM to use VMware vSphere Replication to protect virtual machine workloads.
You can use SRM to implement different types of recovery from the protected site to the recovery site.
Select an Inventory Group
Explore Further
Overview of Site Recovery Manager

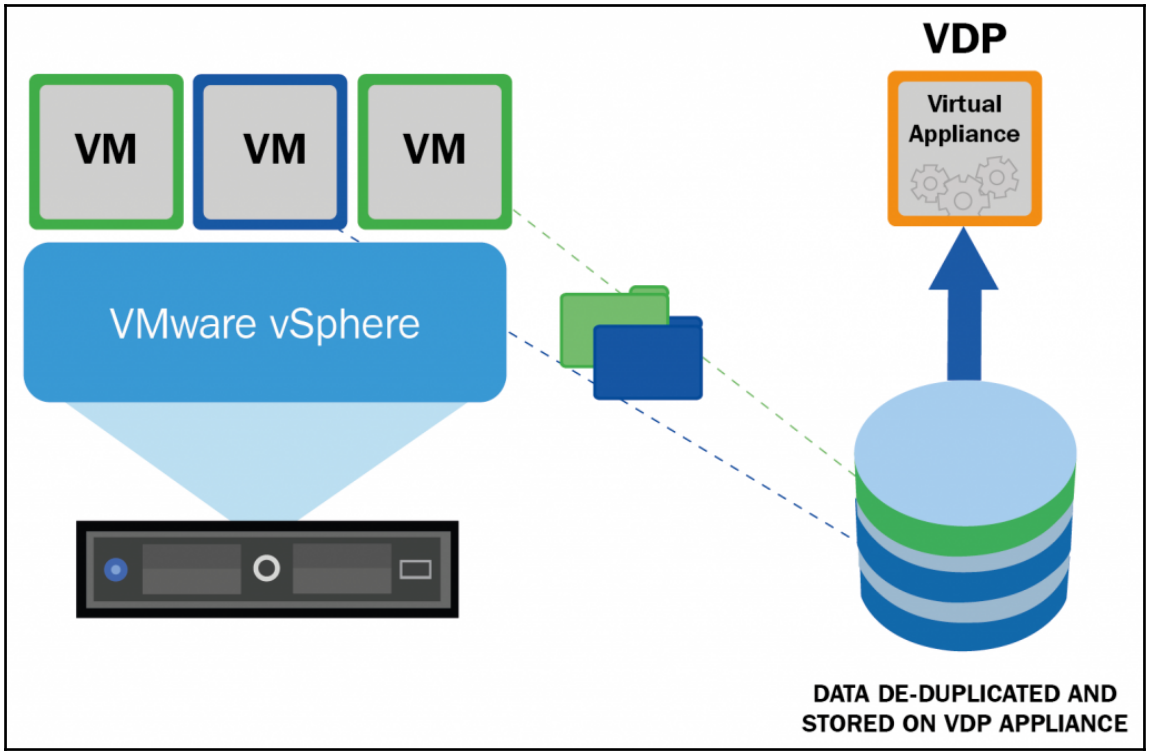

Navigator
Back
Sites
2
[redacted].cz
[redacted]cz
[redacted]cz
Actions
Summary
Monitor
Manage
Related Objects
Site:
[redacted].cz
SRM Server:
[redacted]9086
vCenter Server:
[redacted]443
Platform Services Controller:
[redacted]:443
SRM Plugin Build:
6014840
SRM ID:
com.vmware.vcDr
Site
Name:
[redacted]cz
Client Connection:
Connected
Server Connection:
Connected
SRM Server:
[redacted]9086
vCenter Server:
[redacted]443
SRM Server Build:
6014840
Organization:
VMware, Inc.
Logged in as:
[redacted]
VR Compatibility:
6.5.0.1706 - Compatible
Paired Site
Name:
[redacted].cz
Client Connection:
Connected
Server Connection:
Connected
SRM Server:
[redacted]9086
vCenter Server:
[redacted]443
SRM Server Build:
6014840
Organization:
VMware, Inc.
Logged in as:
[redacted]
VR Compatibility:
6.5.1.2465 - Compatible
Guide to configuring SRM

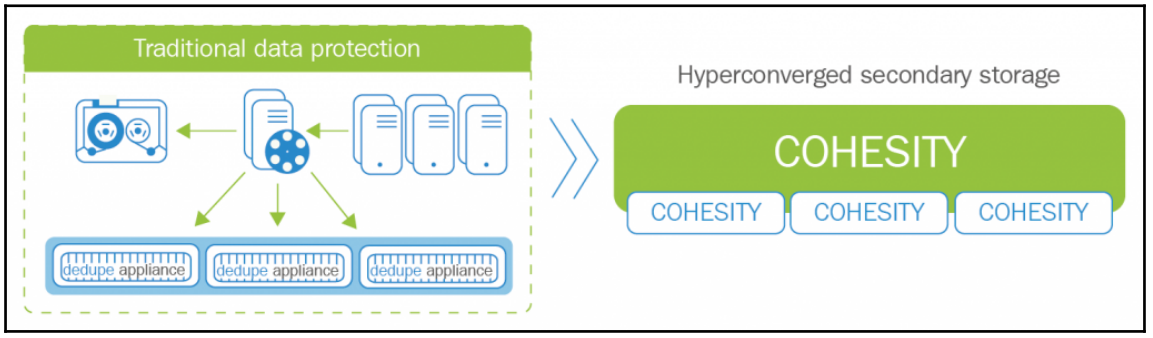
Chapter 14: Data and Workloads Protection

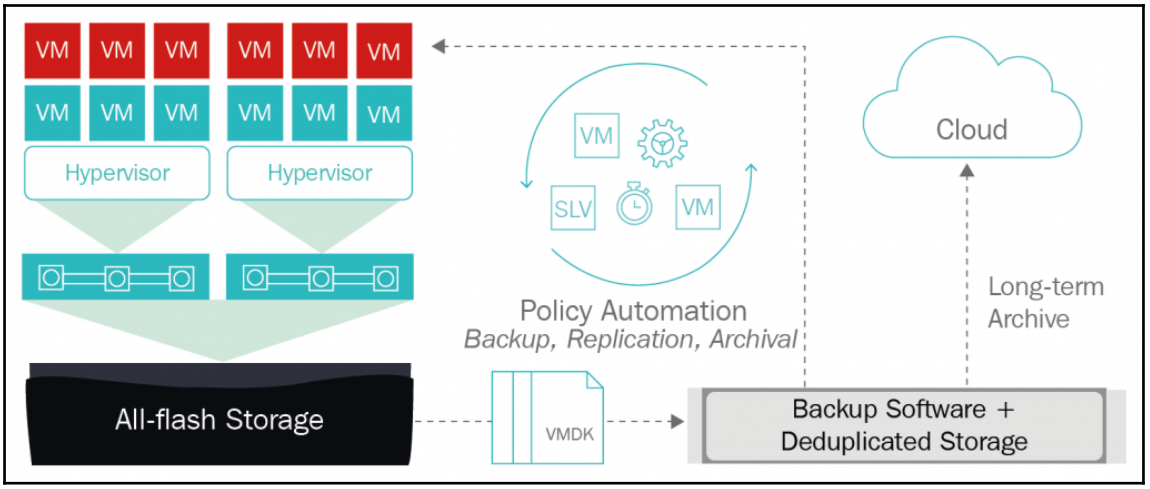
```
[root@esxi01:~] vim-cmd hostsvc/firmware/backup_config
Bundle can be downloaded at : http://*/downloads/52c2e632-4f8c-a55a-a848-576ddab
9ef6b/configBundle-esxi01.localdomain.tgz
[root@esxi01:~]
```

```
[root@esxi01:~] vim-cmd hostsvc/maintenance_mode_enter
[root@esxi01:~] vim-cmd hostsvc/firmware/restore_config /tmp/configBundle.tgz
```




VDP
VM
VM
VM
Virtual Appliance
VMware vSphere
DATA DE-DUPLICATED AND STORED ON VDP APPLIANCE


Traditional data protection
dedupe appliance
dedupe appliance
dedupe appliance
Hyperconverged secondary storage
COHESITY
COHESITY
COHESITY
COHESITY


VM
VM
VM
VM
VM
VM
VM
VM
VM
VM
VM
VM
Hypervisor
Hypervisor
All-flash Storage
VM
SLV
VM
Policy Automation
Backup, Replication, Archival
VMDK
Cloud
Long-term
Archive
Backup Software +
Deduplicated Storage