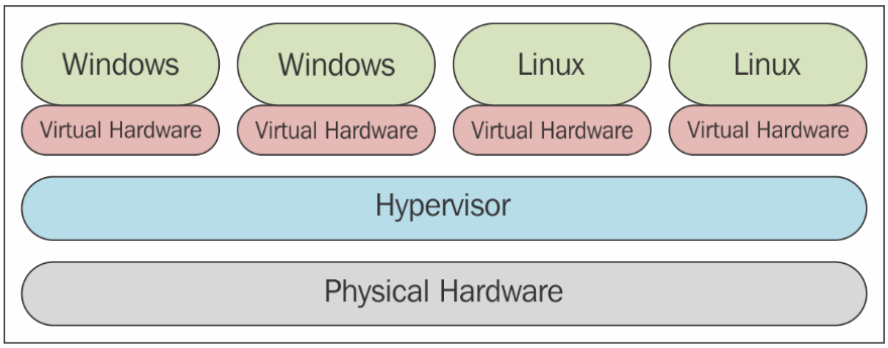
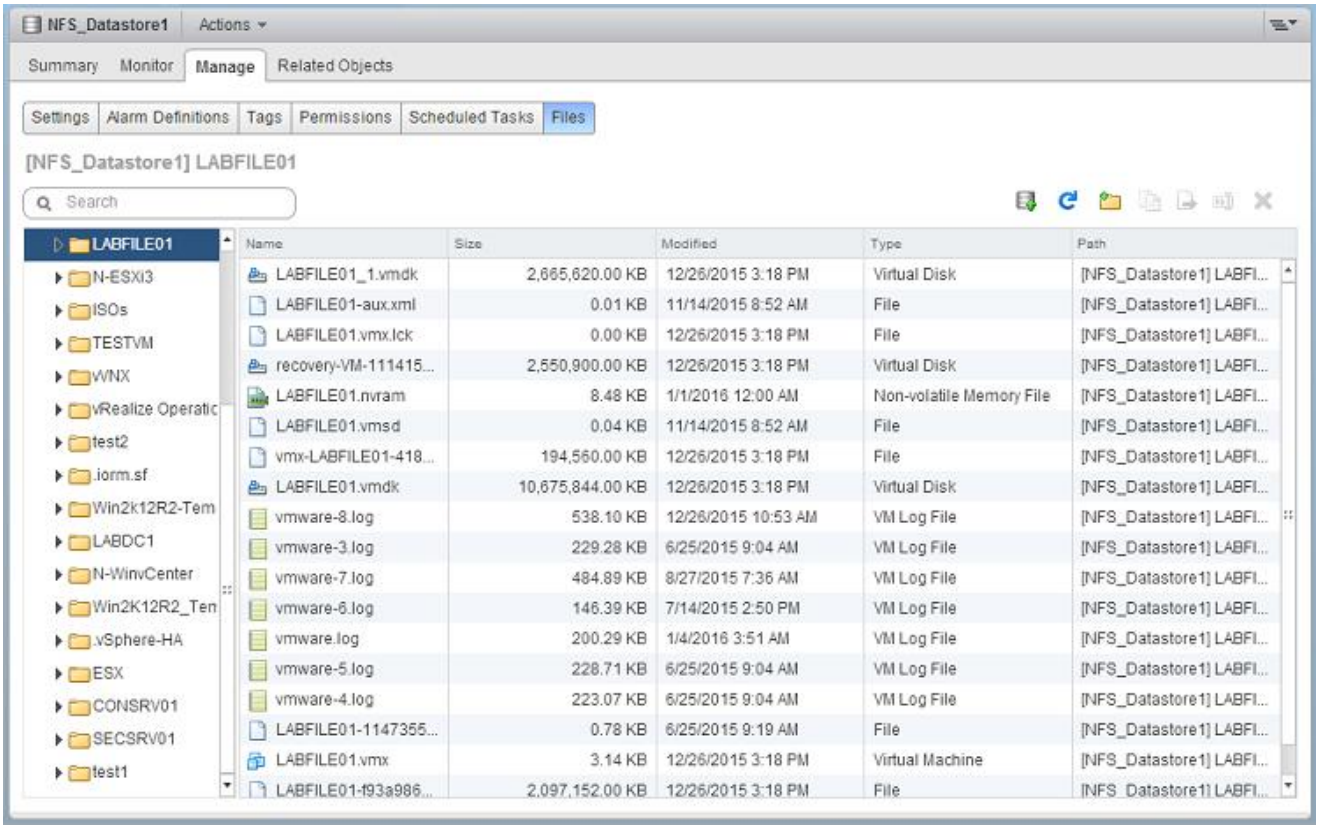
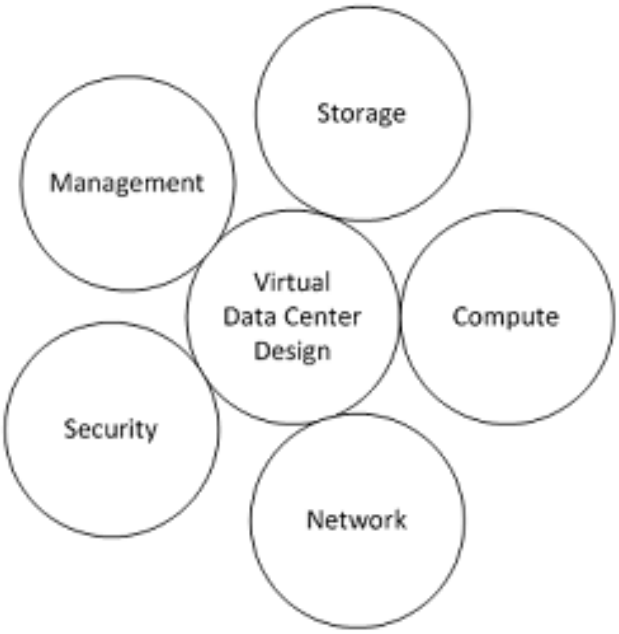
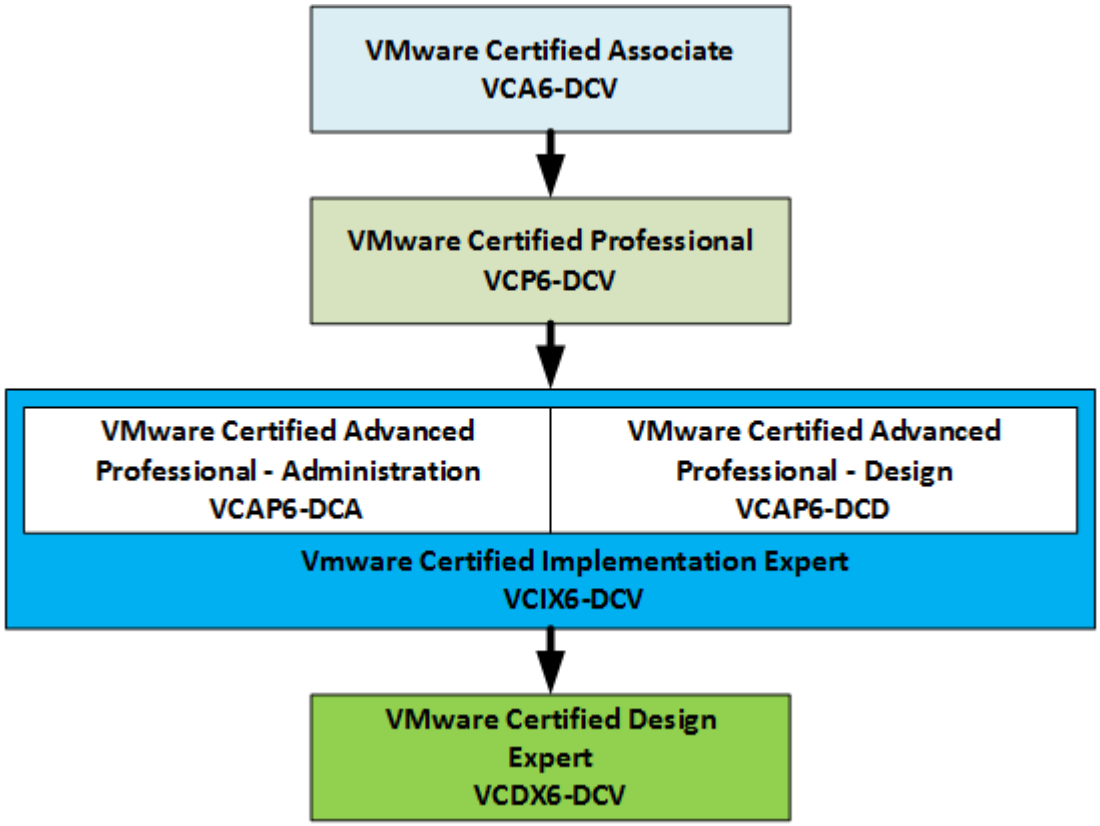
Chapter 1: The Virtual Datacenter



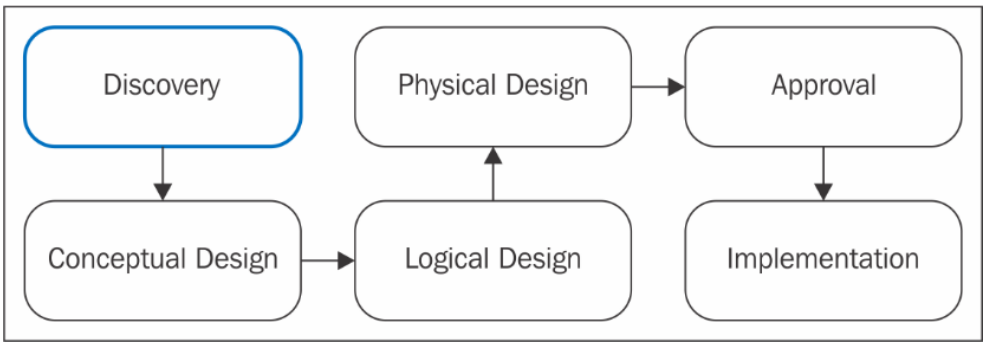
VMware ESXi 6.0.0 (VMKernel Release Build 2494585)
VMware, Inc. VMware Virtual Platform
2 x Intel(R) Core(TM) i7-2600K CPU @ 3.40GHz
6 GiB Memory
Download tools to manage this host from:
http://n-esxi1/
http://172.16.1.100/ (STATIC)
<F2> Customize System/View Logs
<F12> Shut Down/Restart

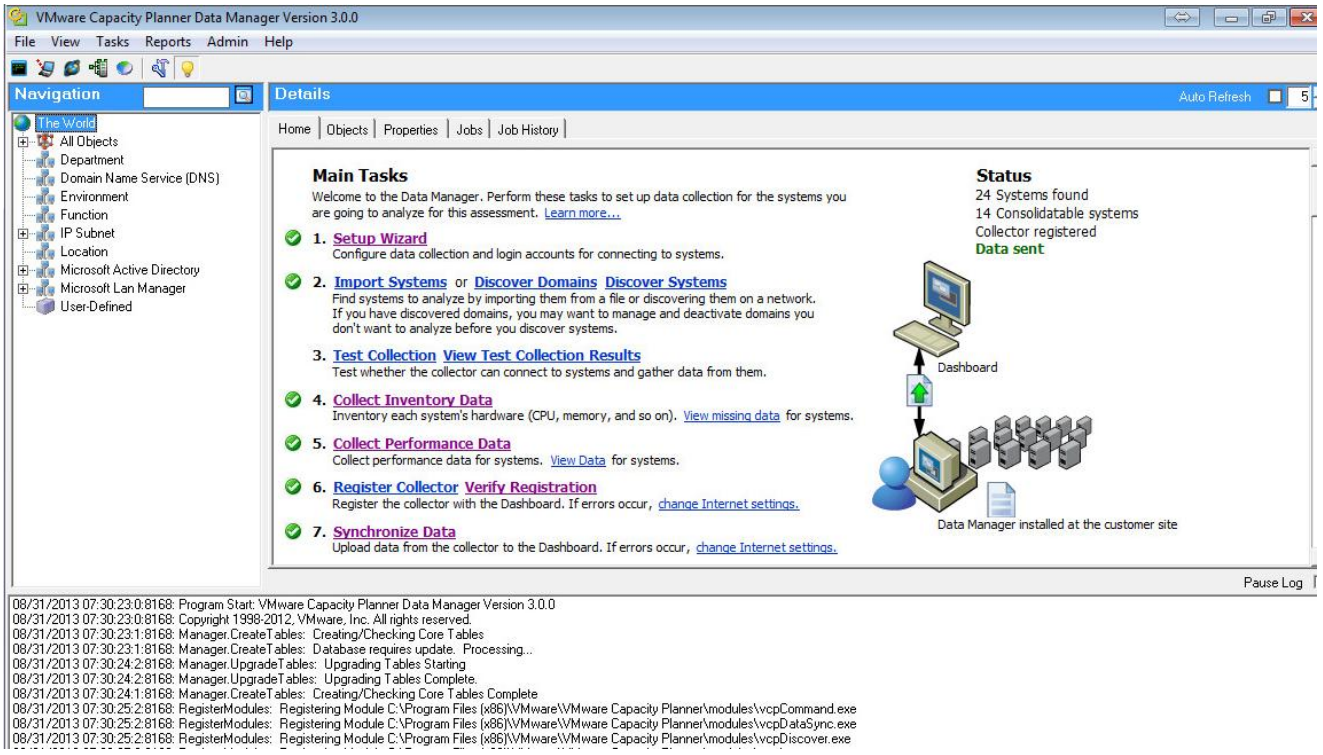

NFS_Datastore1
Actions
Summary
Monitor
Manage
Related Objects
Settings
Alarm Definitions
Tags
Permissions
Scheduled Tasks
Files
[NFS_Datastore1] LABFILE01
Search
LABFILE01
N-ESXI3
ISOs
TESTVM
VNX
vRealize Operatic
test2
.iorm.sf
Win2k12R2-Tem
LABDC1
N-WinvCenter
Win2K12R2_Ten
vSphere-HA
ESX
CONSRV01
SECSRV01
test1
Name
Size
Modified
Type
Path
LABFILE01_1.vmdk 2,665,620.00 KB 12/26/2015 3:18 PM Virtual Disk [NFS_Datastore1] LABFI...
LABFILE01-aux.xml 0.01 KB 11/14/2015 8:52 AM File [NFS_Datastore1] LABFI...
LABFILE01.vmx.lck 0.00 KB 12/26/2015 3:18 PM File [NFS_Datastore1] LABFI...
recovery-VM-111415... 2,550,900.00 KB 12/26/2015 3:18 PM Virtual Disk [NFS_Datastore1] LABFI...
LABFILE01.nvram 8.48 KB 1/1/2016 12:00 AM Non-volatile Memory File [NFS_Datastore1] LABFI...
LABFILE01.vmsd 0.04 KB 11/14/2015 8:52 AM File [NFS_Datastore1] LABFI...
vmx-LABFILE01-418... 194,560.00 KB 12/26/2015 3:18 PM File [NFS_Datastore1] LABFI...
LABFILE01.vmdk 10,675,844.00 KB 12/26/2015 3:18 PM Virtual Disk [NFS_Datastore1] LABFI...
vmware-8.log 538.10 KB 12/26/2015 10:53 AM VM Log File [NFS_Datastore1] LABFI...
vmware-3.log 229.28 KB 6/25/2015 9:04 AM VM Log File [NFS_Datastore1] LABFI...
vmware-7.log 484.89 KB 8/27/2015 7:36 AM VM Log File [NFS_Datastore1] LABFI...
vmware-6.log 146.39 KB 7/14/2015 2:50 PM VM Log File [NFS_Datastore1] LABFI...
vmware.log 200.29 KB 1/4/2016 3:51 AM VM Log File [NFS_Datastore1] LABFI...
vmware-5.log 228.71 KB 6/25/2015 9:04 AM VM Log File [NFS_Datastore1] LABFI...
vmware-4.log 223.07 KB 6/25/2015 9:04 AM VM Log File [NFS_Datastore1] LABFI...
LABFILE01-1147355... 0.78 KB 6/25/2015 9:19 AM File [NFS_Datastore1] LABFI...
LABFILE01.vmx 3.14 KB 12/26/2015 3:18 PM Virtual Machine [NFS_Datastore1] LABFI...
LABFILE01-f93a986... 2,097,152.00 KB 12/26/2015 3:18 PM File [NFS_Datastore1] LABFI...

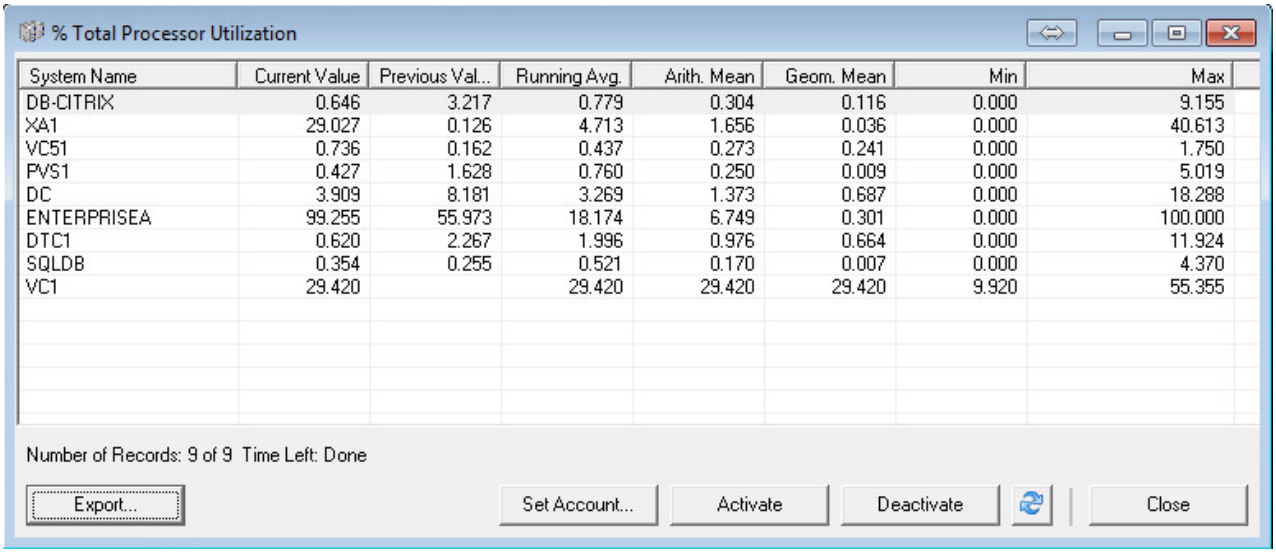

Storage
Management
Virtual
Data Center
Design
Compute
Security
Network

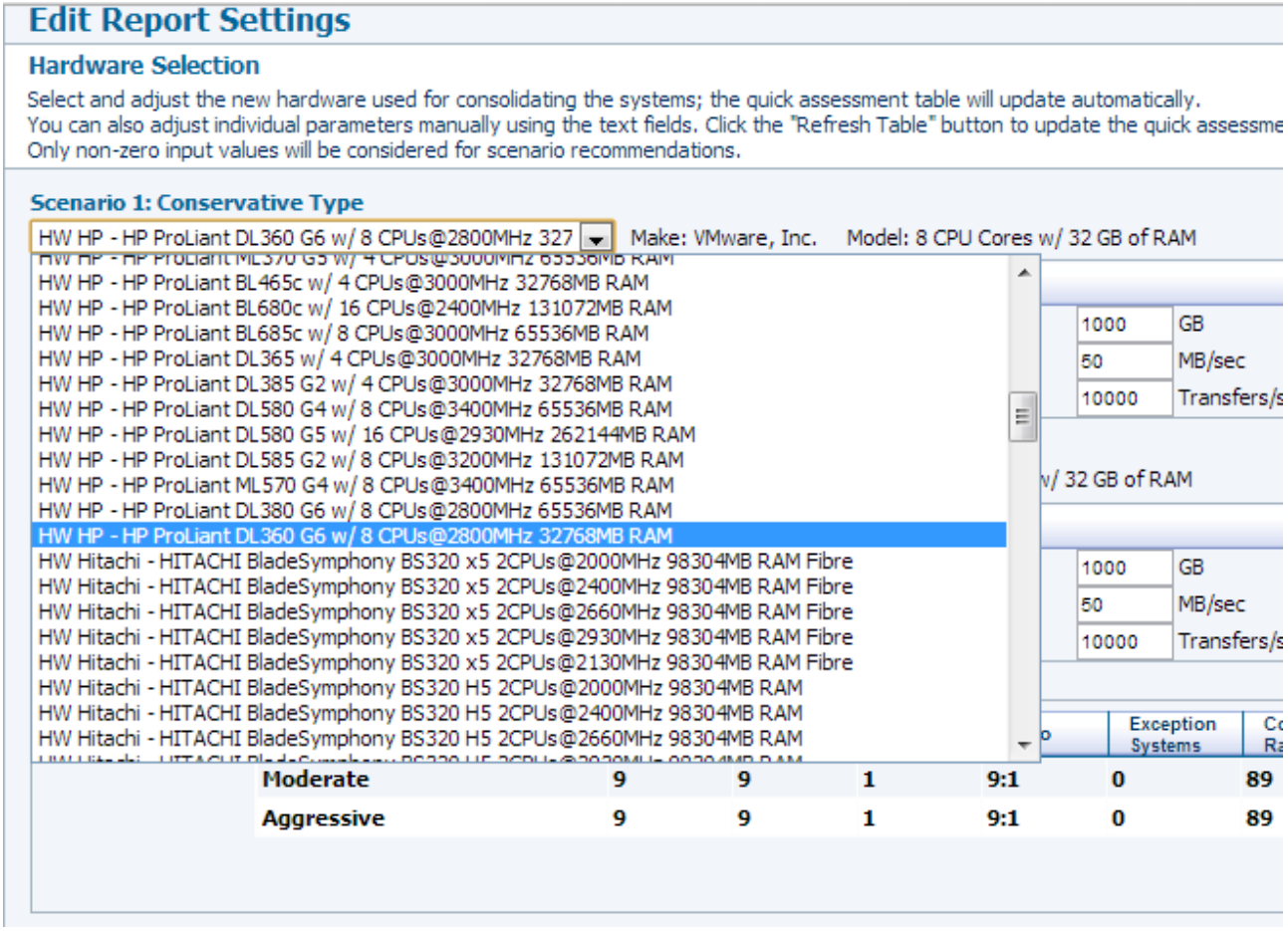

VMware Certified Associate
VCA6-DCV
VMware Certified Professional
VCP6-DCV
VMware Certified Advanced Professional - Administration
VCAP6-DCA
VMware Certified Advanced Professional - Design
VCAP6-DCD
Vmware Certified Implementation Expert
VCIX6-DCV
VMware Certified Design Expert
VCDX6-DCV

Chapter 2: The Discovery Process






% Total Processor Utilization
System Name
Current Value
Previous Val...
Running Avg.
Arith. Mean
Geom. Mean
Min
Max
DB-CITRIX 0.646 3.217 0.779 0.304 0.116 0.000 9.155
XA1 29.027 0.126 4.713 1.656 0.036 0.000 40.613
VC51 0.736 0.162 0.437 0.273 0.241 0.000 1.750
PVS1 0.427 1.628 0.760 0.250 0.009 0.000 5.019
DC 3.909 8.181 3.269 1.373 0.687 0.000 18.288
ENTERPRISEA 99.255 55.973 18.174 6.749 0.301 0.000 100.000
DTC1 0.620 2.267 1.996 0.976 0.664 0.000 11.924
SQLDB 0.354 0.255 0.521 0.170 0.007 0.000 4.370
VC1 29.420 29.420 29.420 29.420 9.920 55.355
Number of Records: 9 of 9 Time Left: Done
Export...
Set Account...
Activate
Deactivate
Close


Edit Report Settings
Hardware Selection
Select and adjust the new hardware used for consolidating the systems; the quick assessment table will update automatically.
You can also adjust individual parameters manually using the text fields. Click the "Refresh Table" button to update the quick assessme
Only non-zero input values will be considered for scenario recommendations.
Scenario 1: Conservative Type
HW HP - HP ProLiant DL360 G6 w/ 8 CPUs@2800MHz 327
Make: VMware, Inc.
Model: 8 CPU Cores w/ 32 GB of RAM
HW HP - HP ProLiant BL465c w/ 4 CPUs@3000MHz 32768MB RAM
HW HP - HP ProLiant BL680c w/ 16 CPUs@2400MHz 131072MB RAM
HW HP - HP ProLiant BL685c w/ 8 CPUs@3000MHz 65536MB RAM
HW HP - HP ProLiant DL365 w/ 4 CPUs@3000MHz 32768MB RAM
HW HP - HP ProLiant DL385 G2 w/ 4 CPUs@3000MHz 32768MB RAM
HW HP - HP ProLiant DL580 G4 w/ 8 CPUs@3400MHz 65536MB RAM
HW HP - HP ProLiant DL580 G5 w/ 16 CPUs@2930MHz 262144MB RAM
HW HP - HP ProLiant DL585 G2 w/ 8 CPUs@3200MHz 131072MB RAM
HW HP - HP ProLiant ML570 G4 w/ 8 CPUs@3400MHz 65536MB RAM
HW HP - HP ProLiant DL380 G6 w/ 8 CPUs@2800MHz 65536MB RAM
HW HP - HP ProLiant DL360 G6 w/ 8 CPUs@2800MHz 32768MB RAM
HW Hitachi - HITACHI BladeSymphony BS320 x5 2CPUs@2000MHz 98304MB RAM Fibre
HW Hitachi - HITACHI BladeSymphony BS320 x5 2CPUs@2400MHz 98304MB RAM Fibre
HW Hitachi - HITACHI BladeSymphony BS320 x5 2CPUs@2660MHz 98304MB RAM Fibre
HW Hitachi - HITACHI BladeSymphony BS320 x5 2CPUs@2930MHz 98304MB RAM Fibre
HW Hitachi - HITACHI BladeSymphony BS320 x5 2CPUs@2130MHz 98304MB RAM Fibre
HW Hitachi - HITACHI BladeSymphony BS320 H5 2CPUs@2000MHz 98304MB RAM
HW Hitachi - HITACHI BladeSymphony BS320 H5 2CPUs@2400MHz 98304MB RAM
HW Hitachi - HITACHI BladeSymphony BS320 H5 2CPUs@2660MHz 98304MB RAM
1000
GB
50
MB/sec
10000
Transfers/s
/ 32 GB of RAM
1000
GB
50
MB/sec
10000
Transfers/s
Exception Systems
Moderate 9 9 1 9:1 0 89
Aggressive 9 9 1 9:1 0 89

System Consolidation Recommendation

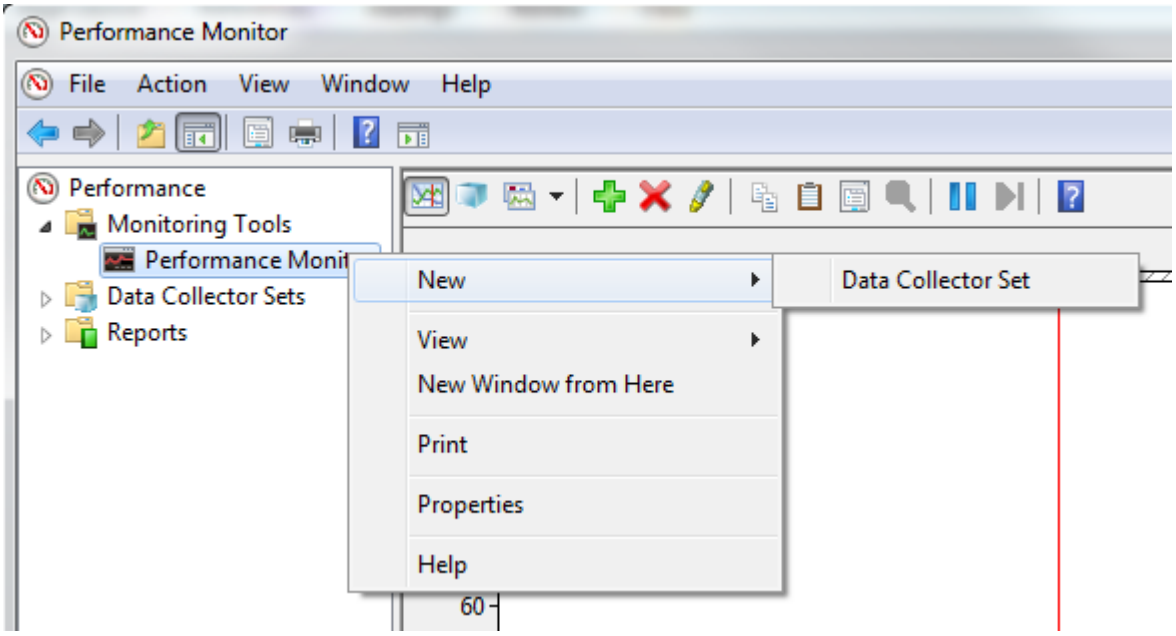
Before Virtualization		With VMware Virtualization							
Total Systems	**Eligible Systems**	**Consolidation Scenario and Platform**	**ESX Hosts**	**ESX CPU Utilization**	**ESX Memory Utilization**	**Average Memory Per VM**	**Racks Saved**	**Eligible System Consolidation Ratio**	**Total System Consolidation Ratio**
9	9	Conservative Type	1	23.04%	56.27%	3.25 GB	0	89%	89%
9	9	Aggressive Type	1	23.04%	56.27%	3.25 GB	0	89%	89%

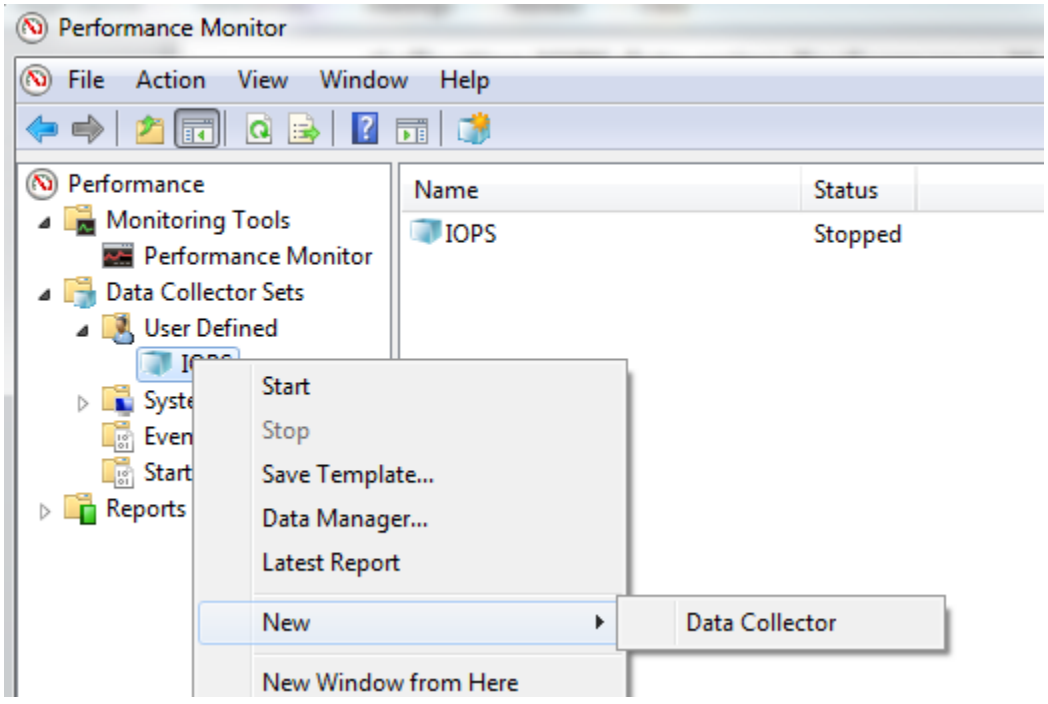
Conservative Type

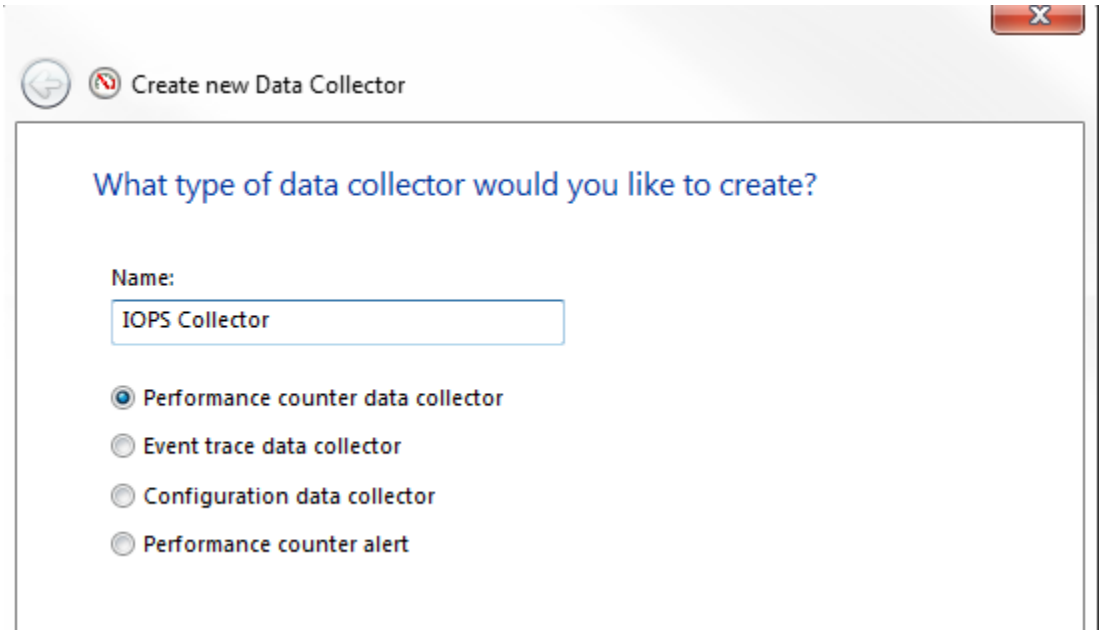
Make: VMware, Inc.
Model: 8 CPU Cores w/ 32 GB of RAM
CPU: 8
Memory: 32 GB

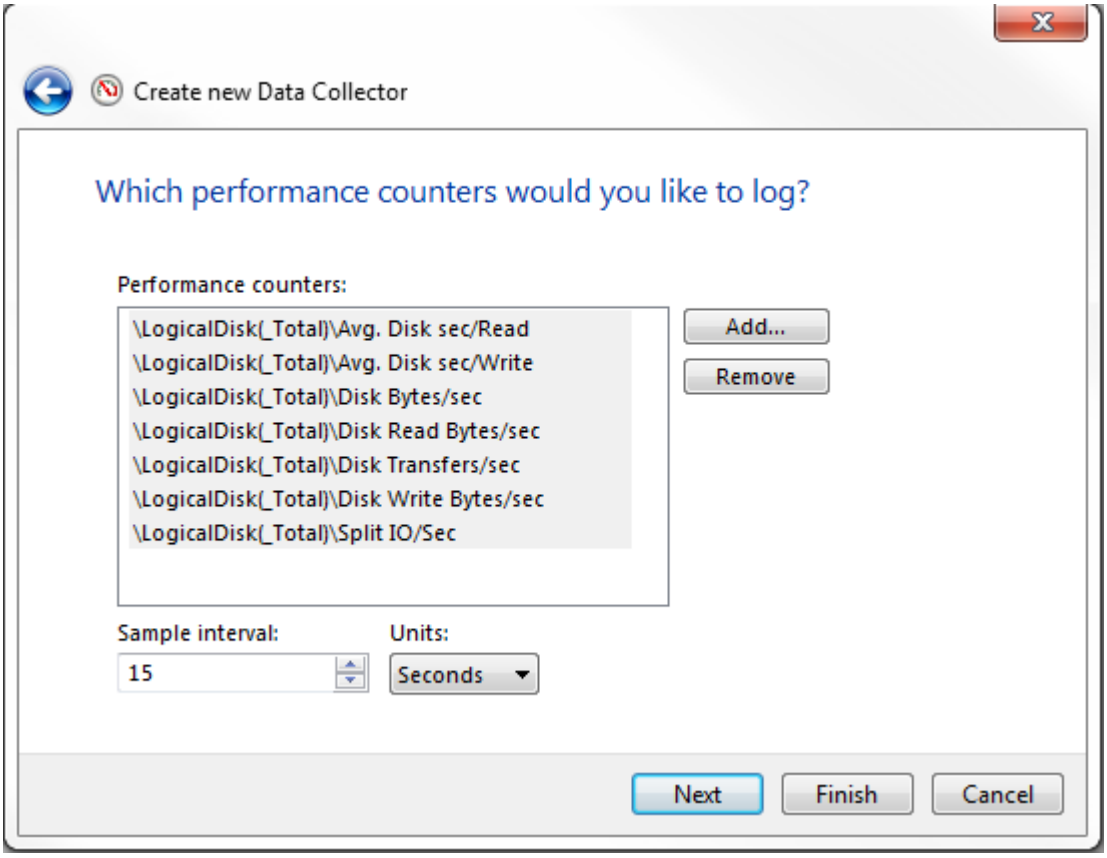
Aggressive Type

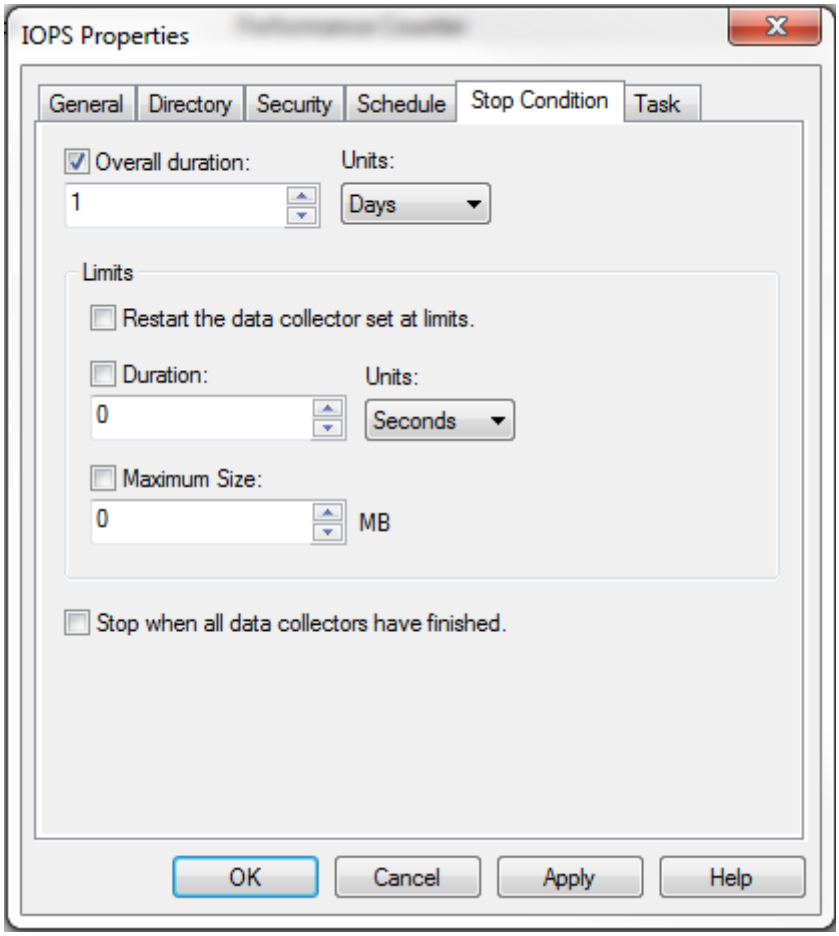
Make: VMware, Inc.
Model: 8 CPU Cores w/ 32 GB of RAM
CPU: 8
Memory: 32 GB

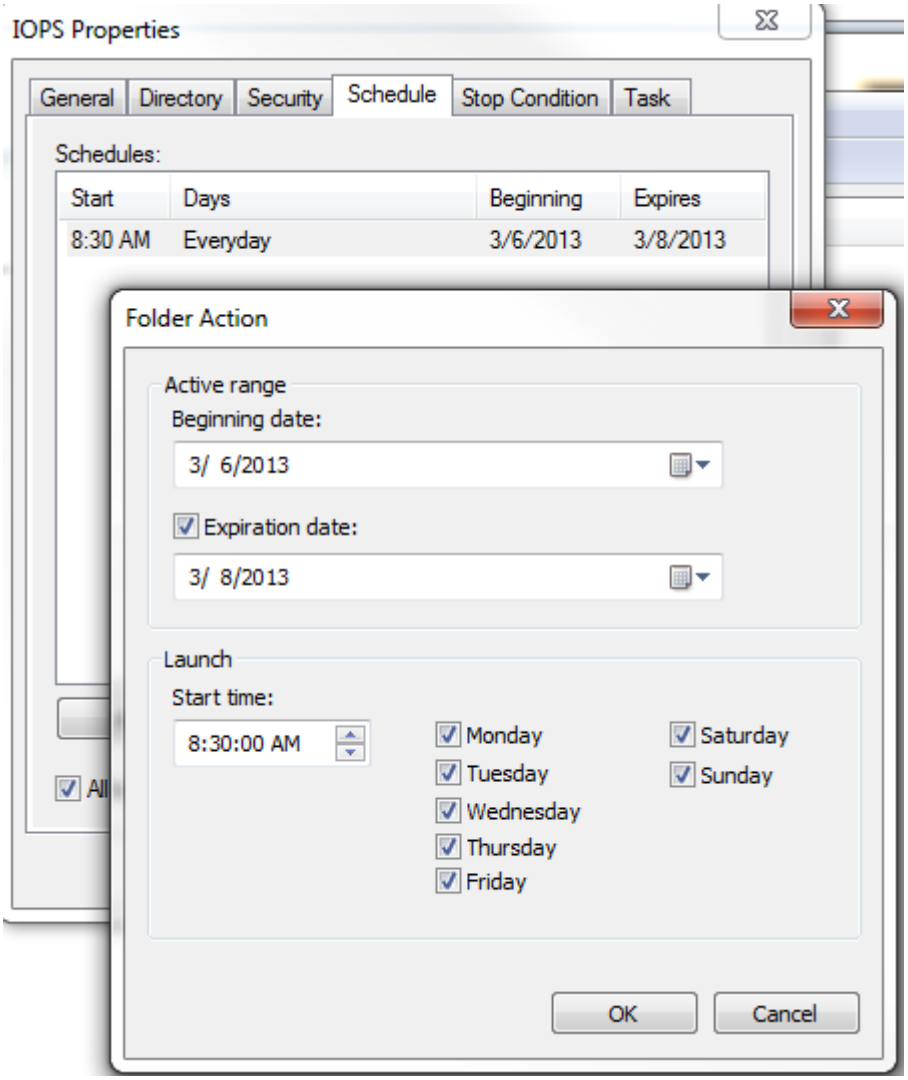

Performance Monitor
File
Action
View
Window
Help
Performance
Monitoring Tools
Performance Monit
Data Collector Sets
Reports
New
View
New Window from Here
Print
Properties
Help
Data Collector Set
60

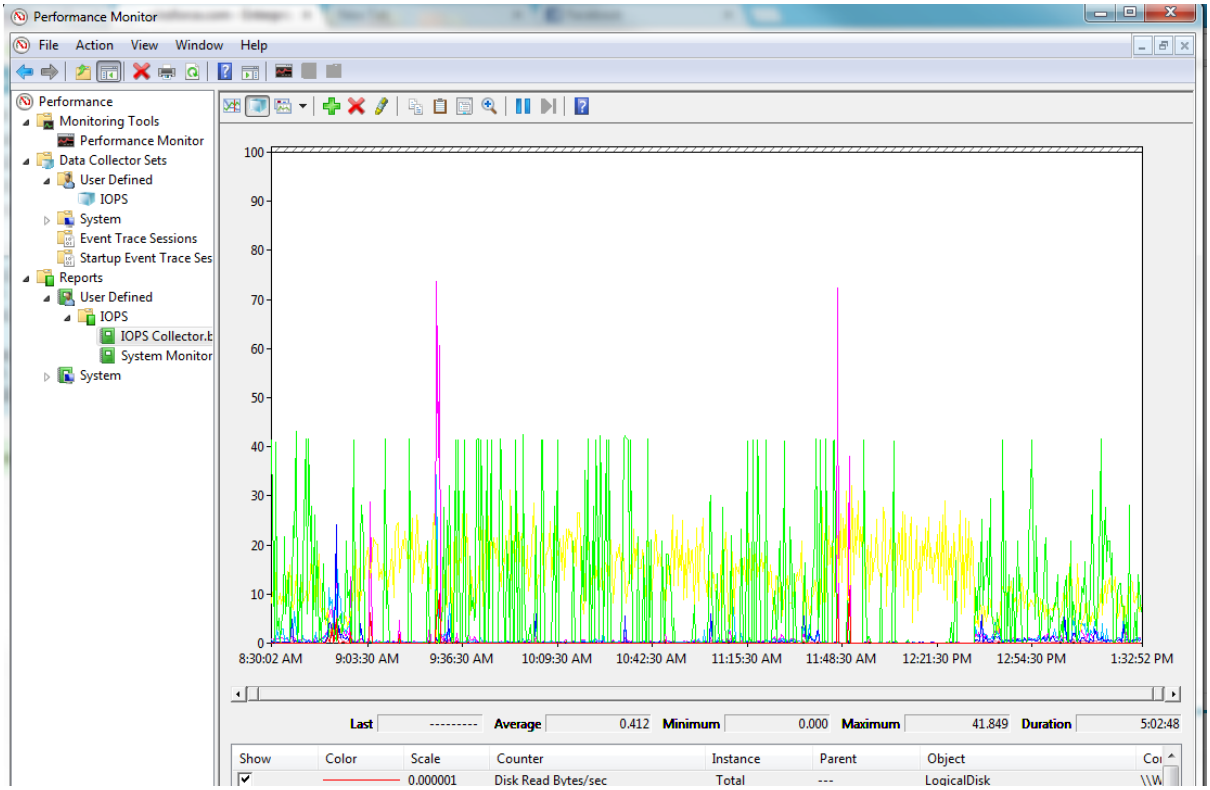

Performance Monitor
File
Action
View
Window
Help
Performance
Monitoring Tools
Performance Monitor
Data Collector Sets
User Defined
Reports
Name
Status
IOPS
Stopped
Start
Stop
Save Template...
Data Manager...
Latest Report
New
New Window from Here
Data Collector

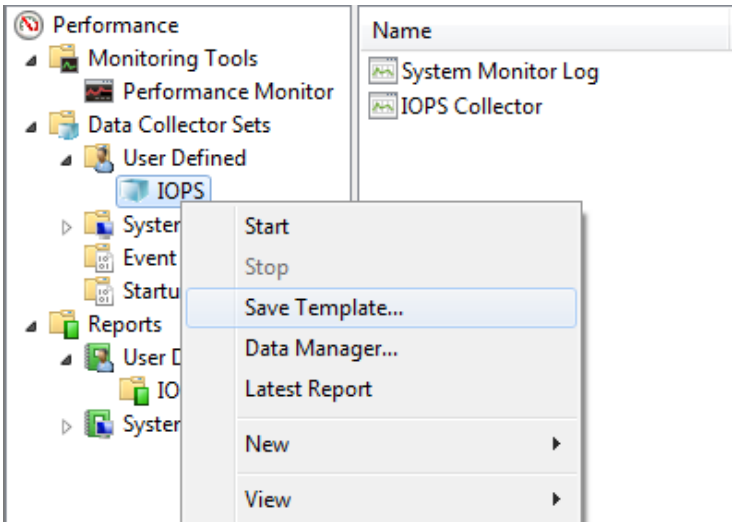

Create new Data Collector
What type of data collector would you like to create?
Name:
IOPS Collector
Performance counter data collector
Event trace data collector
Configuration data collector
Performance counter alert

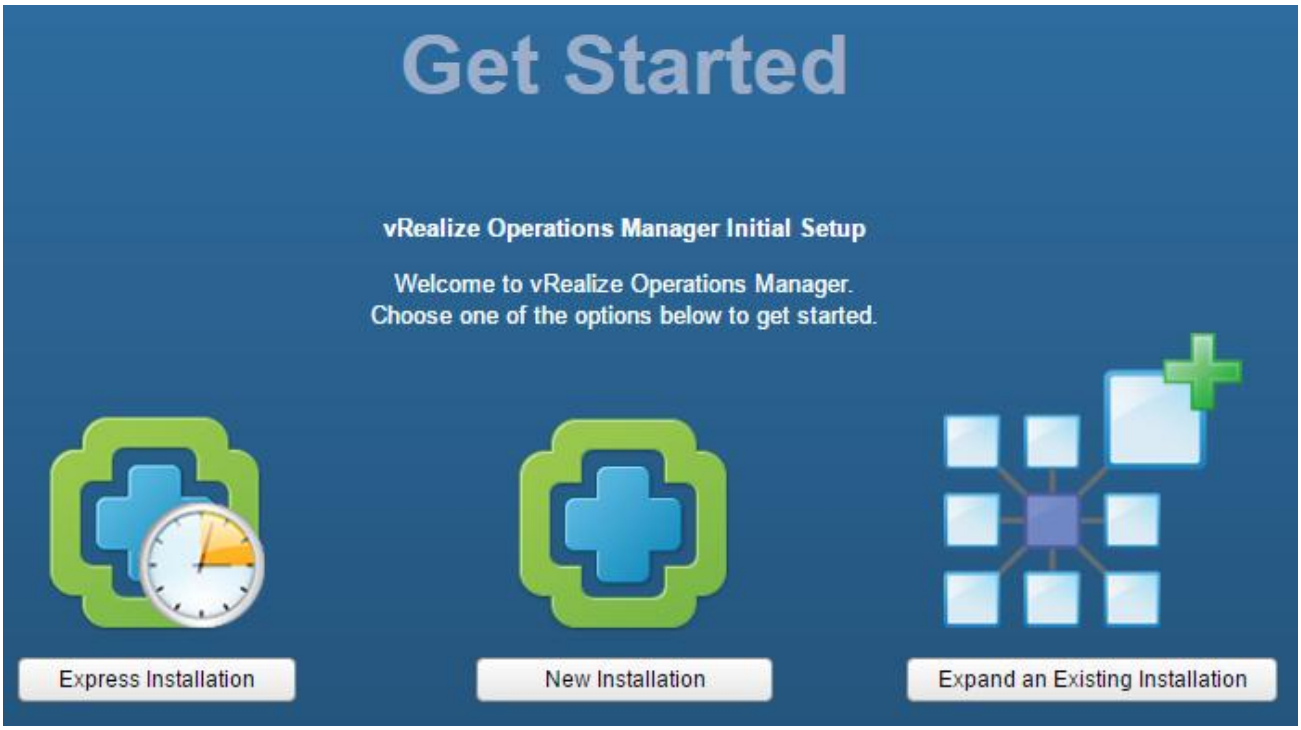

Create new Data Collector
Which performance counters would you like to log?
Performance counters:
\LogicalDisk(_Total)\Avg. Disk sec/Read
\LogicalDisk(_Total)\Avg. Disk sec/Write
\LogicalDisk(_Total)\Disk Bytes/sec
\LogicalDisk(_Total)\Disk Read Bytes/sec
\LogicalDisk(_Total)\Disk Transfers/sec
\LogicalDisk(_Total)\Disk Write Bytes/sec
\LogicalDisk(_Total)\Split IO/Sec
Add...
Remove
Sample interval:
15
Units:
Seconds
Next
Finish
Cancel

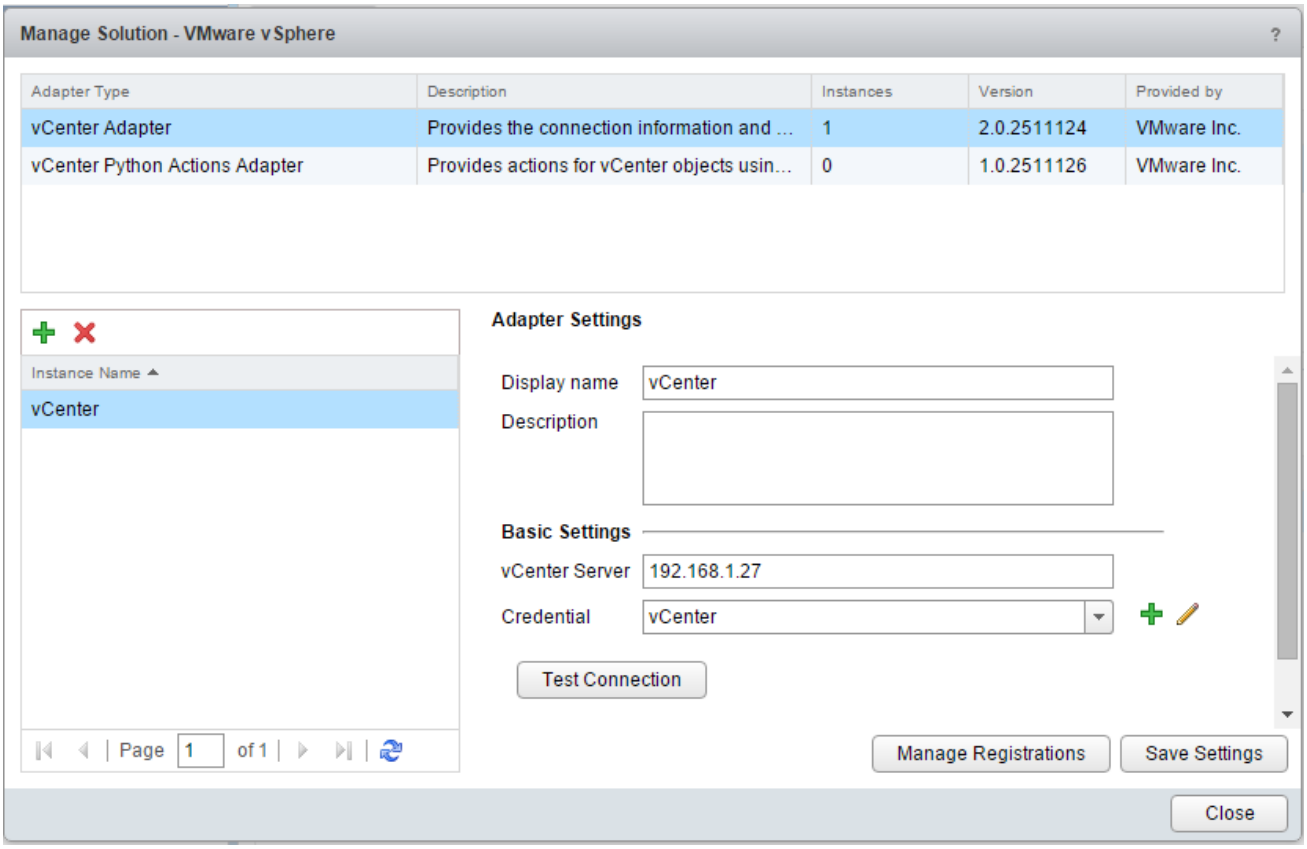

IOPS Properties
General
Directory
Security
Schedule
Stop Condition
Task
Overall duration:
Units:
1
Days
Limits
Restart the data collector set at limits.
Duration:
Units:
0
Seconds
Maximum Size:
0
MB
Stop when all data collectors have finished.
OK
Cancel
Apply
Help

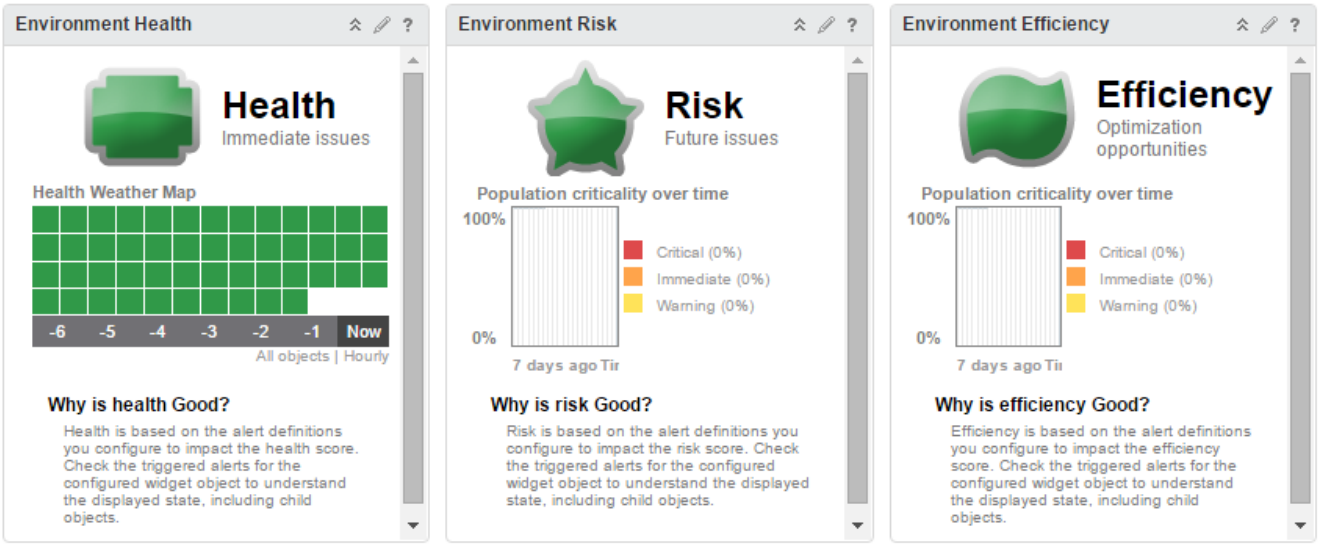

IOPS Properties
General
Directory
Security
Schedule
Stop Condition
Task
Schedules:
Start
Days
Beginning
Expires
8:30 AM
Everyday
3/6/2013
3/8/2013
Folder Action
Active range
Beginning date:
3/ 6/2013
Expiration date:
3/ 8/2013
Launch
Start time:
8:30:00 AM
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
OK
Cancel


Performance Monitor
File Action View Window Help
Performance
Monitoring Tools
Performance Monitor
Data Collector Sets
User Defined
IOPS
System
Event Trace Sessions
Startup Event Trace Ses
Reports
User Defined
IOPS
IOPS Collector.b
System Monitor
System
100
90
80
70
60
50
40
30
20
10
0
8:30:02 AM
9:03:30 AM
9:36:30 AM
10:09:30 AM
10:42:30 AM
11:15:30 AM
11:48:30 AM
12:21:30 PM
12:54:30 PM
1:32:52 PM
Last --------
Average 0.412
Minimum 0.000
Maximum 41.849
Duration 5:02:48
Show Color Scale Counter Instance Parent Object
0.000001 Disk Read Bytes/sec Total --- LogicalDisk


Performance
Monitoring Tools
Performance Monitor
Data Collector Sets
User Defined
IOPS
Syster
Event
Startu
Reports
User D
IO
Syster
Name
System Monitor Log
IOPS Collector
Start
Stop
Save Template...
Data Manager...
Latest Report
New
View


Get Started
vRealize Operations Manager Initial Setup
Welcome to vRealize Operations Manager.
Choose one of the options below to get started.
Express Installation
New Installation
Expand an Existing Installation

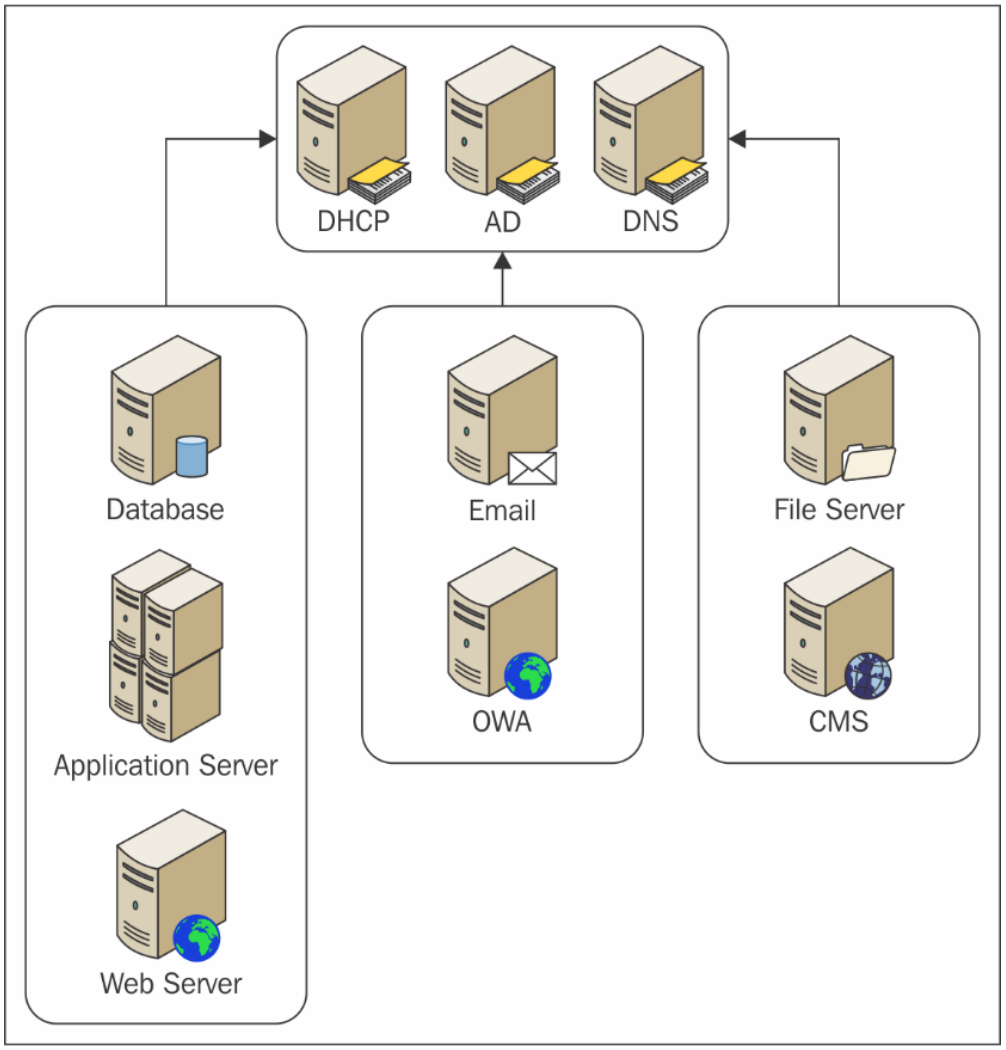

Manage Solution - VMware vSphere
Adapter Type
Description
Instances
Version
Provided by
vCenter Adapter
Provides the connection information and ...
1
2.0.2511124
VMware Inc.
vCenter Python Actions Adapter
Provides actions for vCenter objects usin...
0
1.0.2511126
VMware Inc.
Instance Name
vCenter
Page 1 of 1
Adapter Settings
Display name
vCenter
Description
Basic Settings
vCenter Server
192.168.1.27
Credential
vCenter
Test Connection
Manage Registrations
Save Settings
Close



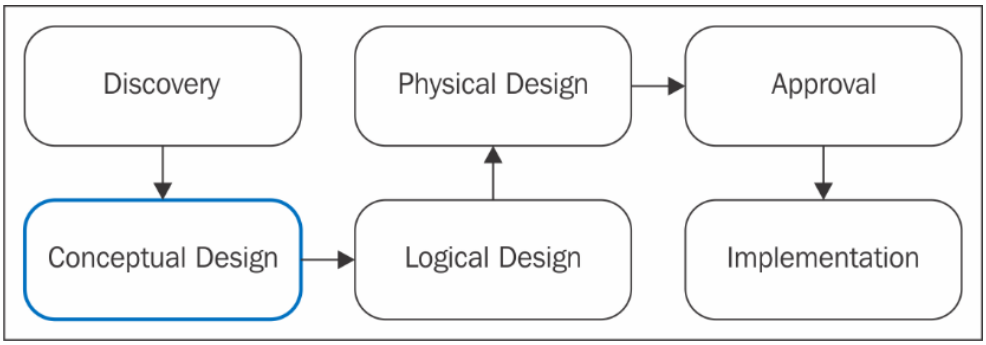
Report Templates | Generated Reports

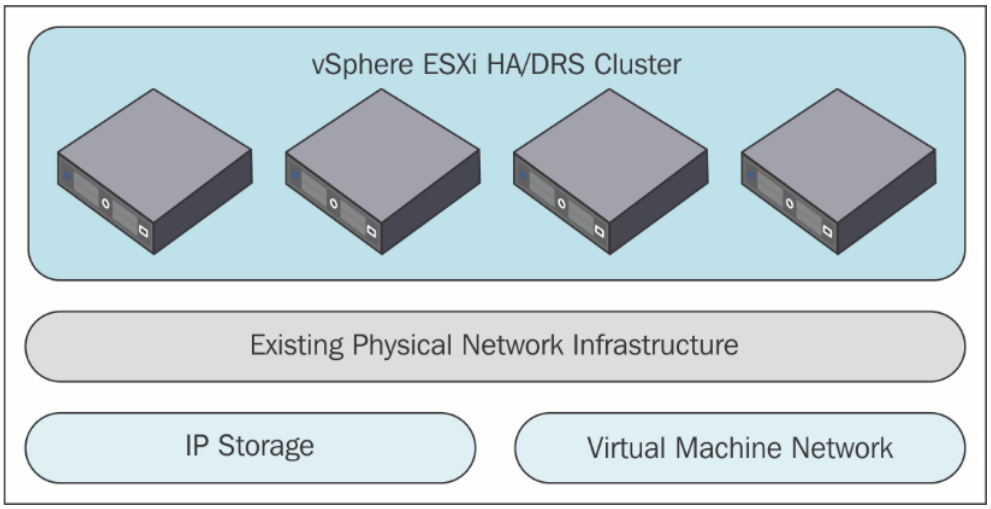
All Filters | Quick filter (Name)

Name	Subject	Modified	Last run	Owner
[VOA] Consolidated Assessment Report Generated reports (0) | Schedules (0)	Alerts Rollup, Cluster Compute R...	-	-	admin
[vOA] Phase 1 Configuration Reporting Generated reports (0) | Schedules (0)	Cluster Compute Resource, Host ...	-	-	admin
[vOA] Phase 2 Performance Reporting Generated reports (0) | Schedules (0)	Alerts Rollup, Host System, Virtua...	-	-	admin
[vOA] Phase 3 Capacity Reporting Generated reports (0) | Schedules (0)	Cluster Compute Resource, Host ...	-	-	admin

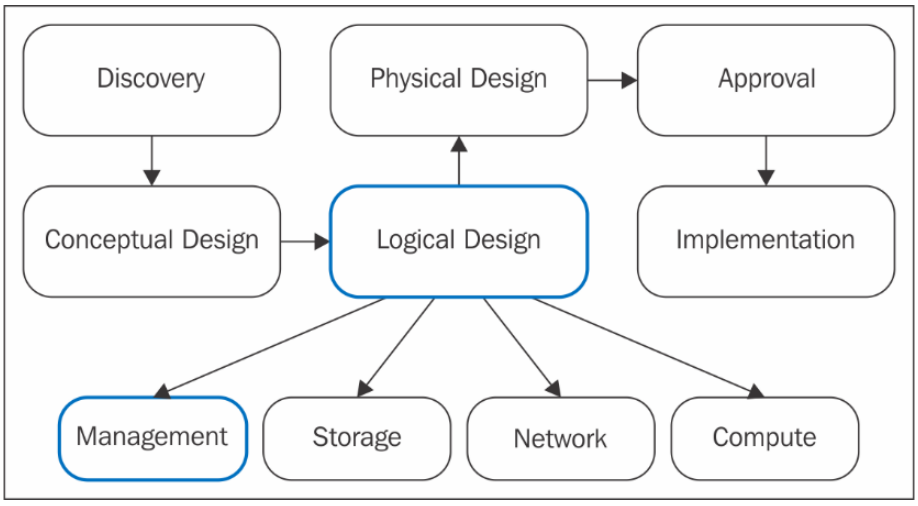

DHCP
AD
DNS
Database
Application Server
Web Server
Email
OWA
File Server
CMS

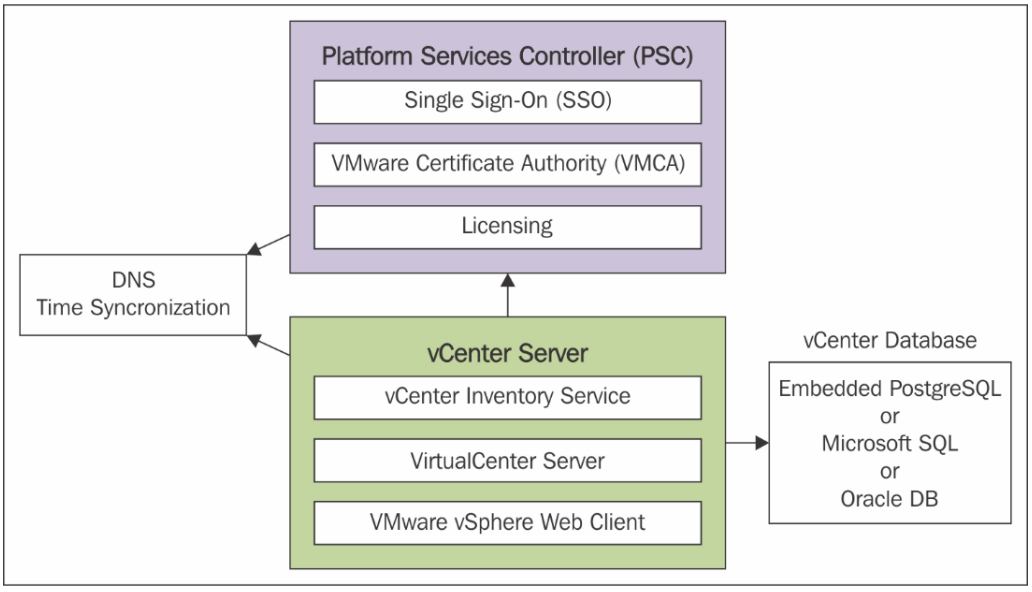
Chapter 3: The Design Factors

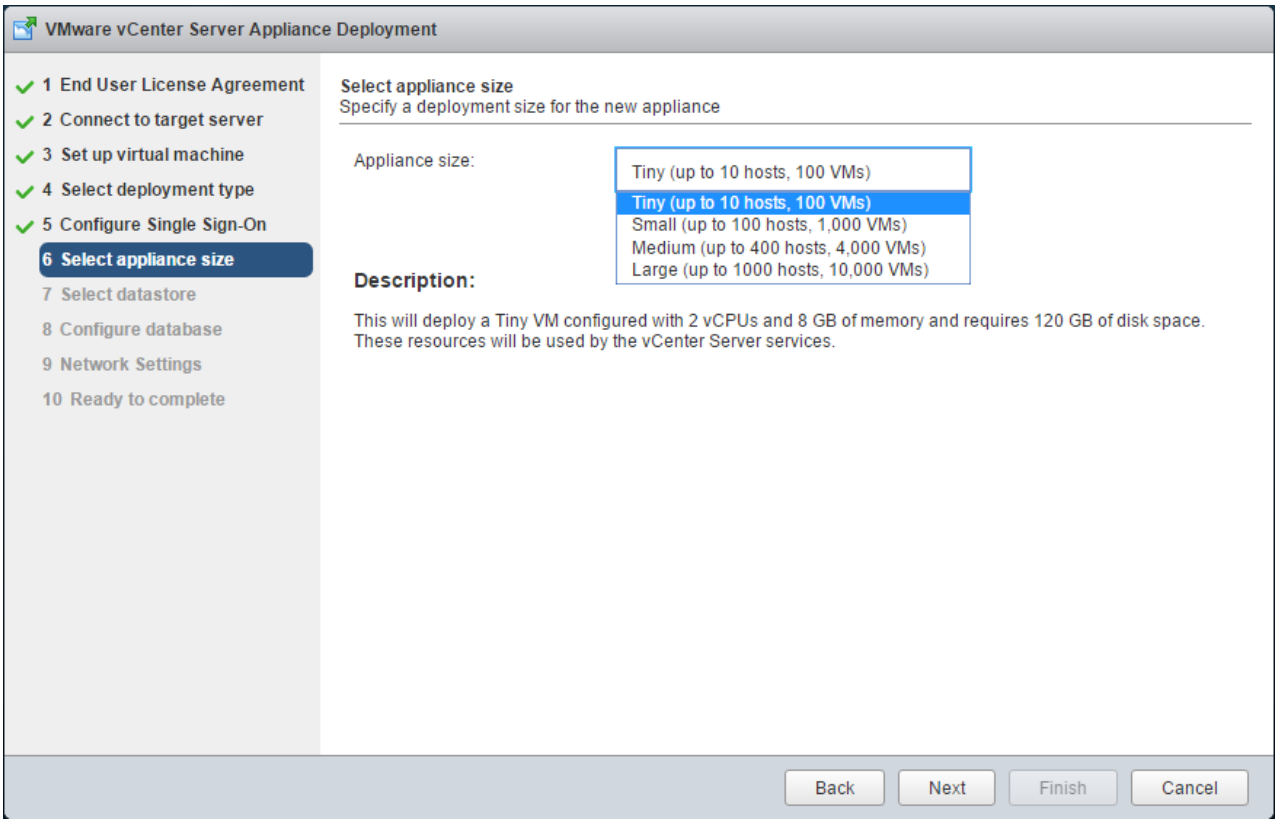




Chapter 4: vSphere Management Design






VMware vCenter Server Appliance Deployment
1 End User License Agreement
2 Connect to target server
3 Set up virtual machine
4 Select deployment type
5 Configure Single Sign-On
6 Select appliance size
7 Select datastore
8 Configure database
9 Network Settings
10 Ready to complete
Select appliance size
Specify a deployment size for the new appliance
Appliance size:
Tiny (up to 10 hosts, 100 VMs)
Tiny (up to 10 hosts, 100 VMs)
Small (up to 100 hosts, 1,000 VMs)
Medium (up to 400 hosts, 4,000 VMs)
Large (up to 1000 hosts, 10,000 VMs)
Description:
This will deploy a Tiny VM configured with 2 vCPUs and 8 GB of memory and requires 120 GB of disk space.
These resources will be used by the vCenter Server services.
Back
Next
Finish
Cancel

VMware Product Interoperability Matrixes

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 × 6.0 U1

2. Add Database *(optional)*

Add *databases* to see if they are compatible with the selected *solution*.

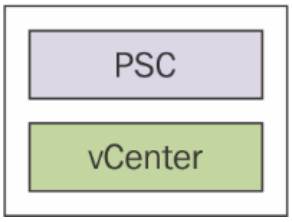
× Microsoft SQL Server 2008 Express - 64-bit × Microsoft SQL Server 2008 Datacenter (R2 SP1) - 32-bit × Microsoft SQL Server 2012 Enterprise (SP2) - 64 bit

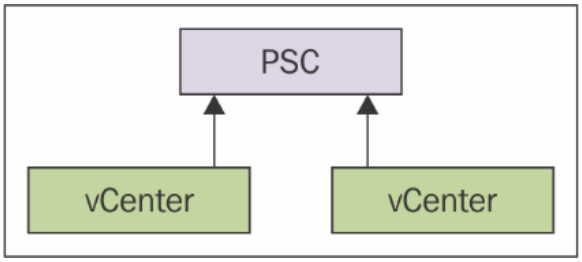
Hide empty rows/columns

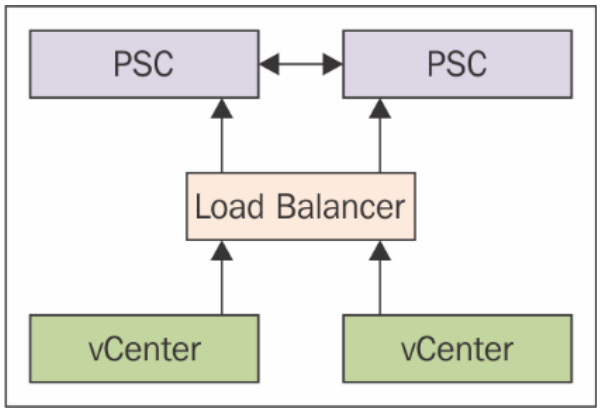
Copy | Excel | Print

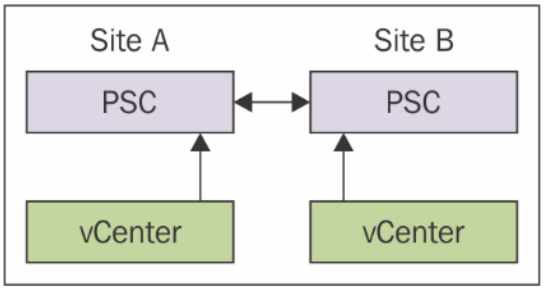
VMware vCenter Server	6.0 U1
Microsoft SQL Server 2008 Express - 64-bit	
Microsoft SQL Server 2008 Datacenter (R2 SP1) - 32-bit	✓
Microsoft SQL Server 2012 Enterprise (SP2) - 64 bit	✓

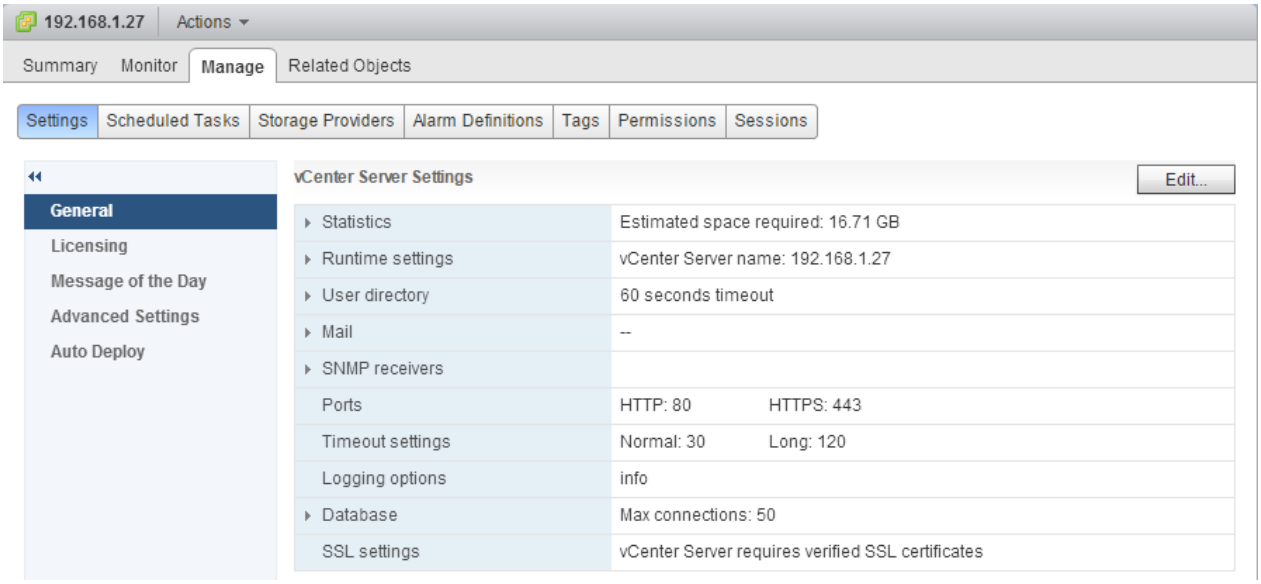
Showing 1 to 3 of 3 entries

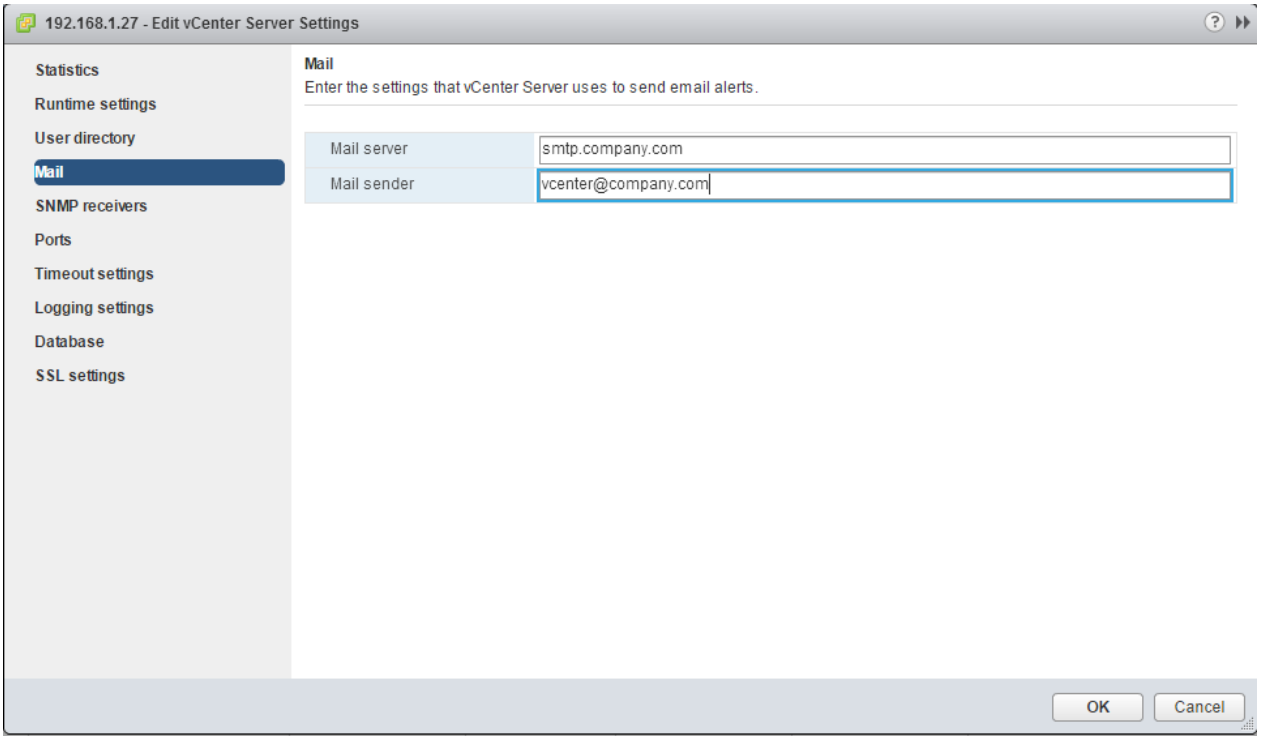


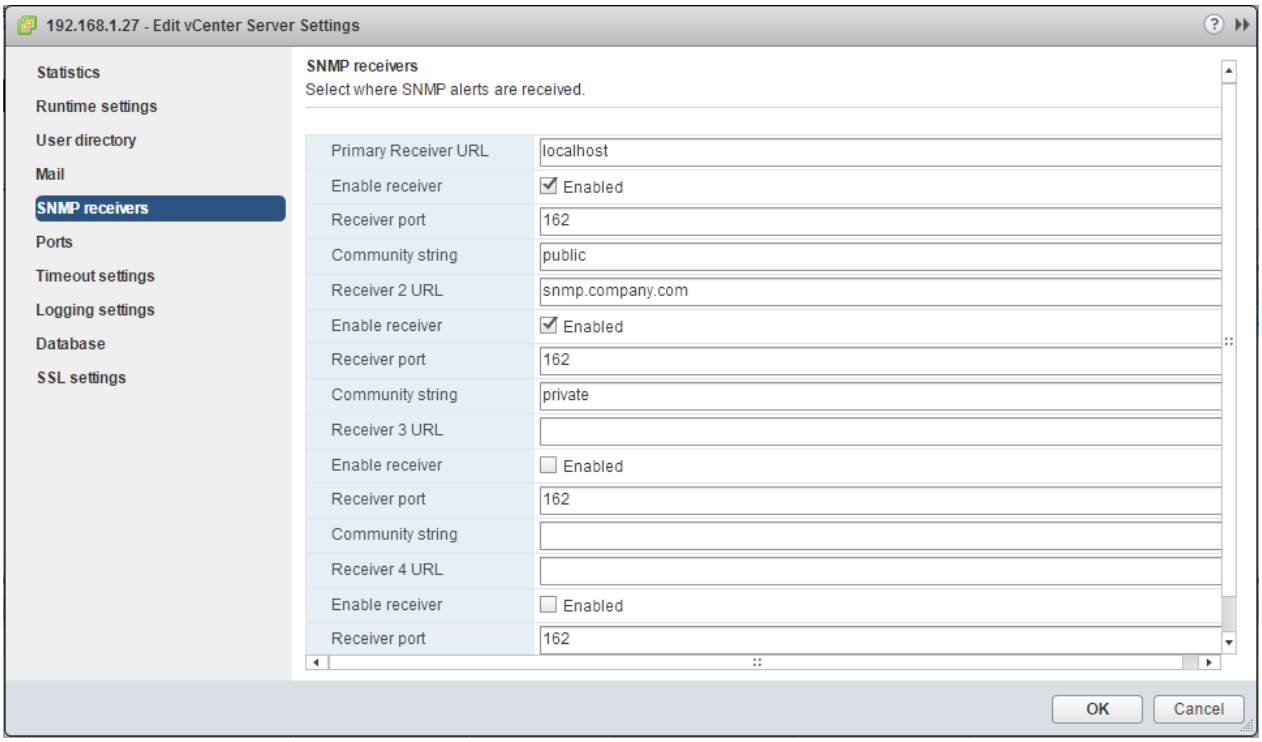

PSC
vCenter
vCenter

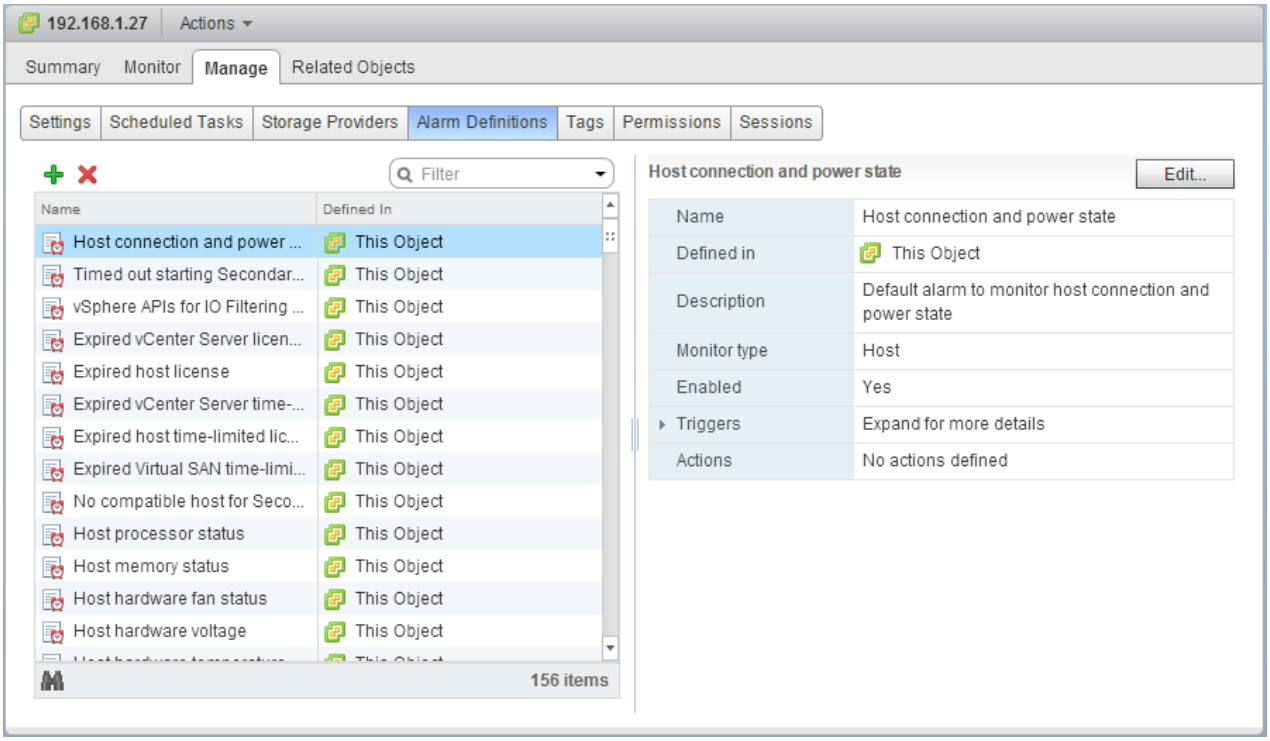

PSC
PSC
Load Balancer
vCenter
vCenter

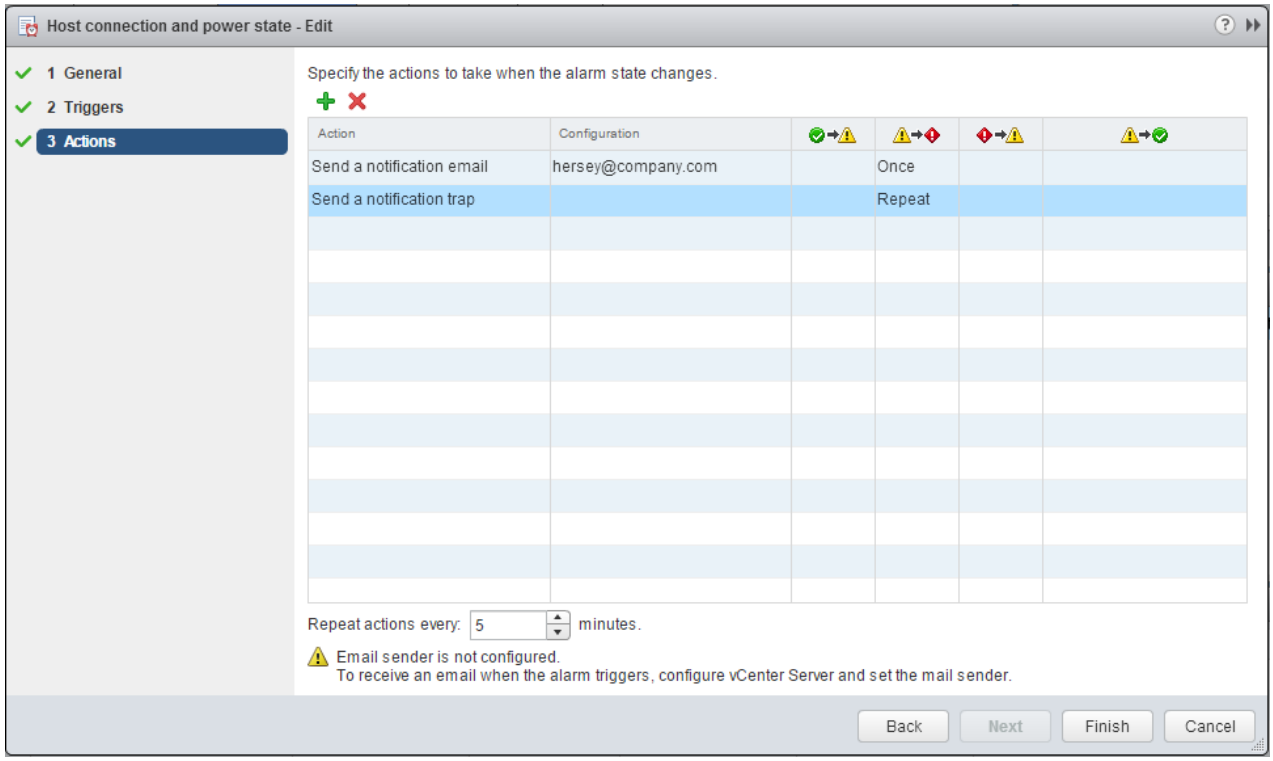

Site A
Site B
PSC
PSC
vCenter
vCenter

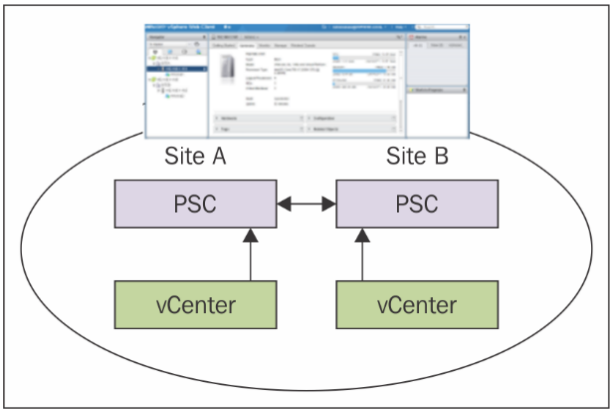

192.168.1.27
Actions
Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Storage Providers
Alarm Definitions
Tags
Permissions
Sessions
General
Licensing
Message of the Day
Advanced Settings
Auto Deploy
vCenter Server Settings
Edit...
Statistics
Estimated space required: 16.71 GB
Runtime settings
vCenter Server name: 192.168.1.27
User directory
60 seconds timeout
Mail
--
SNMP receivers
Ports
HTTP: 80
HTTPS: 443
Timeout settings
Normal: 30
Long: 120
Logging options
info
Database
Max connections: 50
SSL settings
vCenter Server requires verified SSL certificates

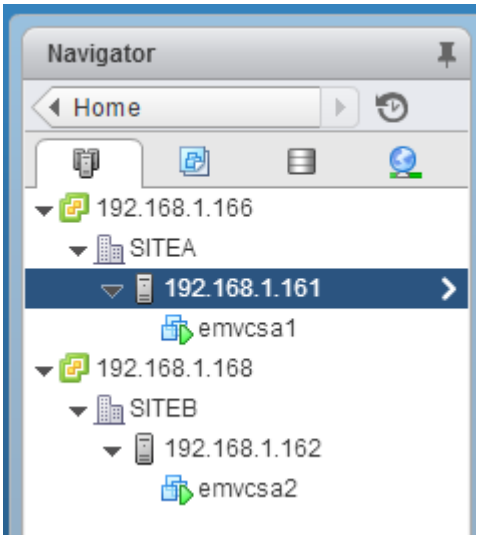

192.168.1.27 - Edit vCenter Server Settings
Statistics
Runtime settings
User directory
Mail
SNMP receivers
Ports
Timeout settings
Logging settings
Database
SSL settings
Mail
Enter the settings that vCenter Server uses to send email alerts.
Mail server
smtp.company.com
Mail sender
vcenter@company.com
OK
Cancel


192.168.1.27 - Edit vCenter Server Settings
Statistics
Runtime settings
User directory
Mail
SNMP receivers
Ports
Timeout settings
Logging settings
Database
SSL settings
SNMP receivers
Select where SNMP alerts are received.
Primary Receiver URL
localhost
Enable receiver
Enabled
Receiver port
162
Community string
public
Receiver 2 URL
snmp.company.com
Enable receiver
Enabled
Receiver port
162
Community string
private
Receiver 3 URL
Enable receiver
Enabled
Receiver port
162
Community string
Receiver 4 URL
Enable receiver
Enabled
Receiver port
162
OK
Cancel


192.168.1.27
Actions
Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Storage Providers
Alarm Definitions
Tags
Permissions
Sessions
Filter
Name
Defined In
Host connection and power ...
This Object
Timed out starting Secondar...
This Object
vSphere APIs for IO Filtering ...
This Object
Expired vCenter Server licen...
This Object
Expired host license
This Object
Expired vCenter Server time-...
This Object
Expired host time-limited lic...
This Object
Expired Virtual SAN time-limi...
This Object
No compatible host for Seco...
This Object
Host processor status
This Object
Host memory status
This Object
Host hardware fan status
This Object
Host hardware voltage
This Object
156 items
Host connection and power state
Edit...
Name
Host connection and power state
Defined in
This Object
Description
Default alarm to monitor host connection and power state
Monitor type
Host
Enabled
Yes
Triggers
Expand for more details
Actions
No actions defined


Host connection and power state - Edit
1 General
2 Triggers
3 Actions
Specify the actions to take when the alarm state changes.
Action
Configuration
Send a notification email
hersey@company.com
Once
Send a notification trap
Repeat
Repeat actions every: 5 minutes.
Email sender is not configured.
To receive an email when the alarm triggers, configure vCenter Server and set the mail sender.
Back
Next
Finish
Cancel


Site A
Site B
PSC
PSC
vCenter
vCenter


Navigator
Home
192.168.1.166
SITEA
192.168.1.161
emvcsa1
192.168.1.168
SITEB
192.168.1.162
emvcsa2

VMware Product Interoperability Matrixes

Interoperability | Solution/Database Interoperability | Upgrade Path

1. Select a Solution

If you do not know the *solution's* version leave it blank.

VMware vCenter Update Manager × 6.0 U1

2. Add Platform/Solution

Add *platforms/solutions* to see if they are compatible with the selected *solution*.

VMware ESX/ESXi All versions

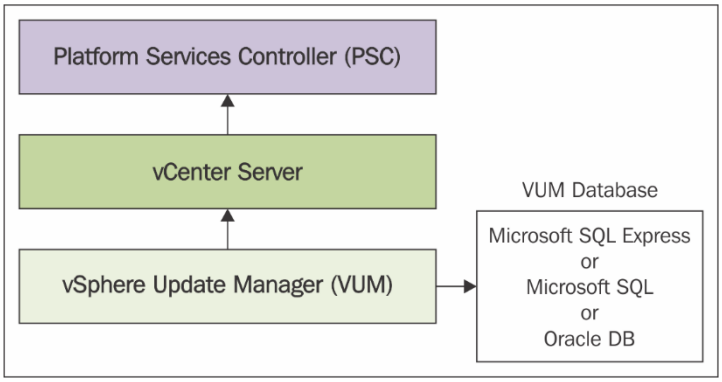
+ Add Another Solution

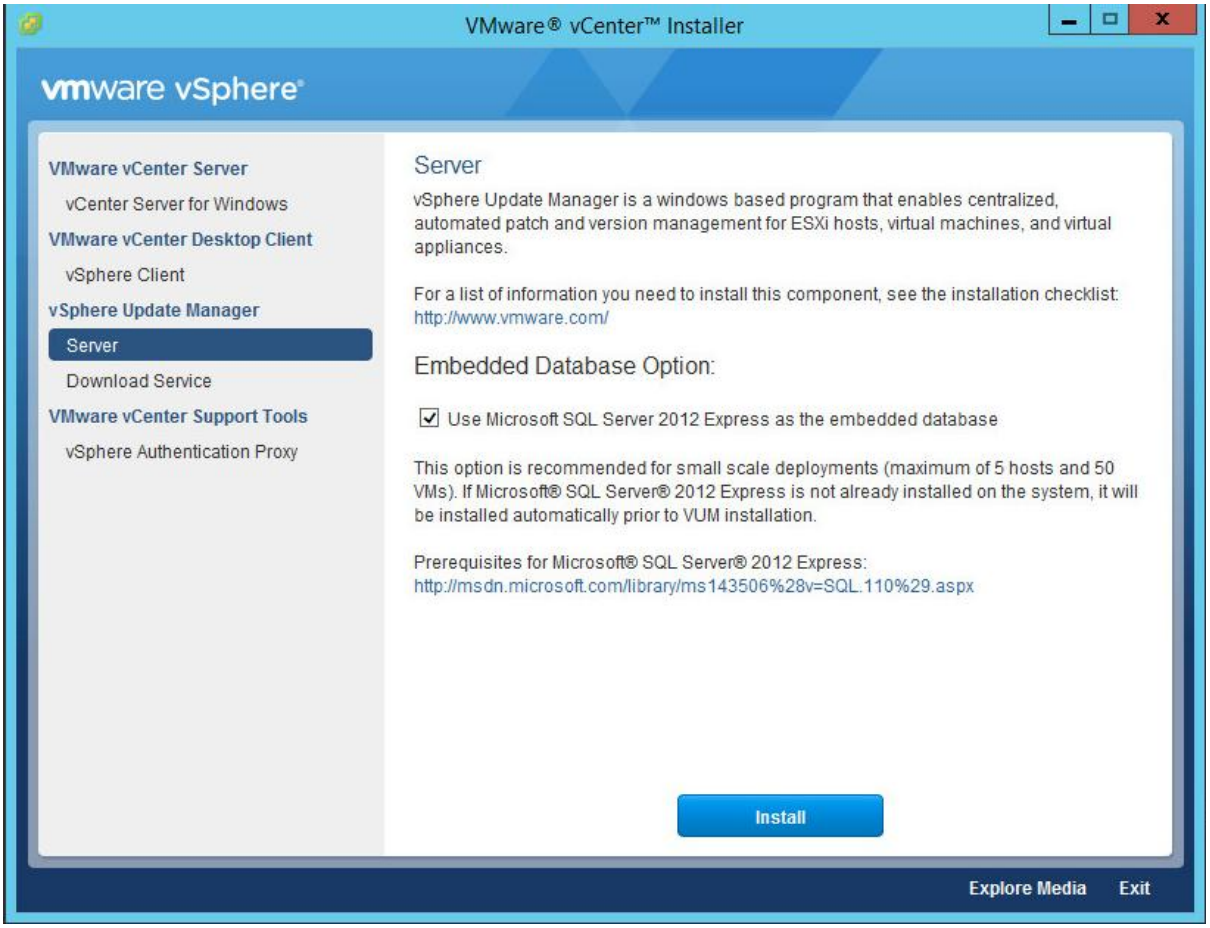
☑ Hide empty rows/columns

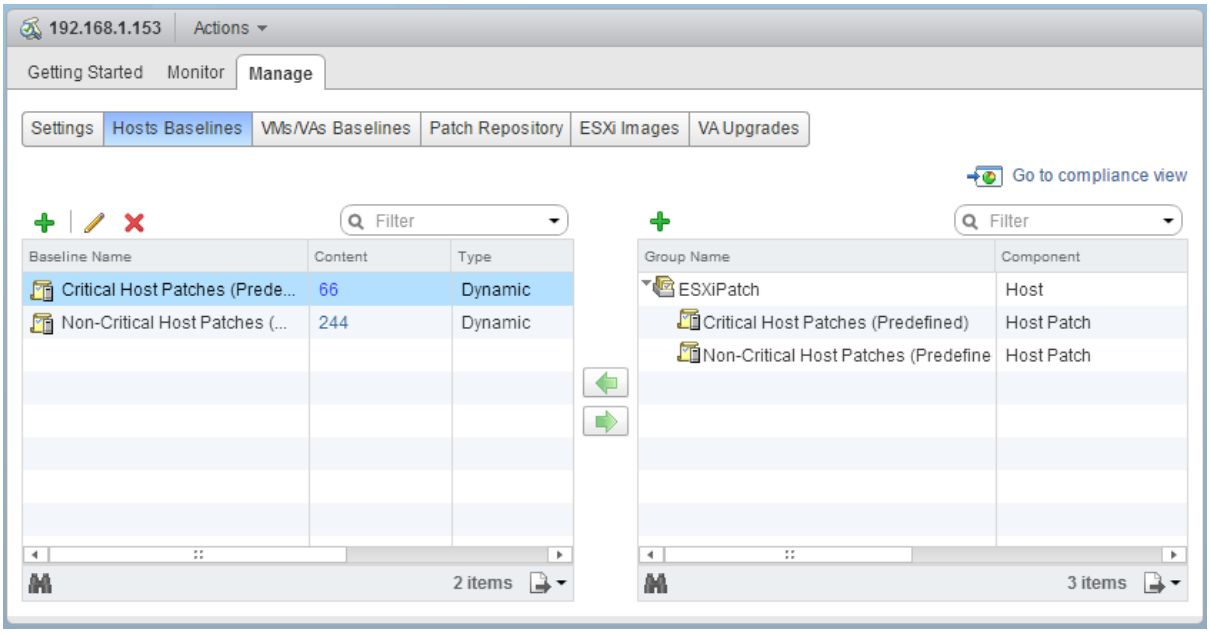
Copy | Excel | Print

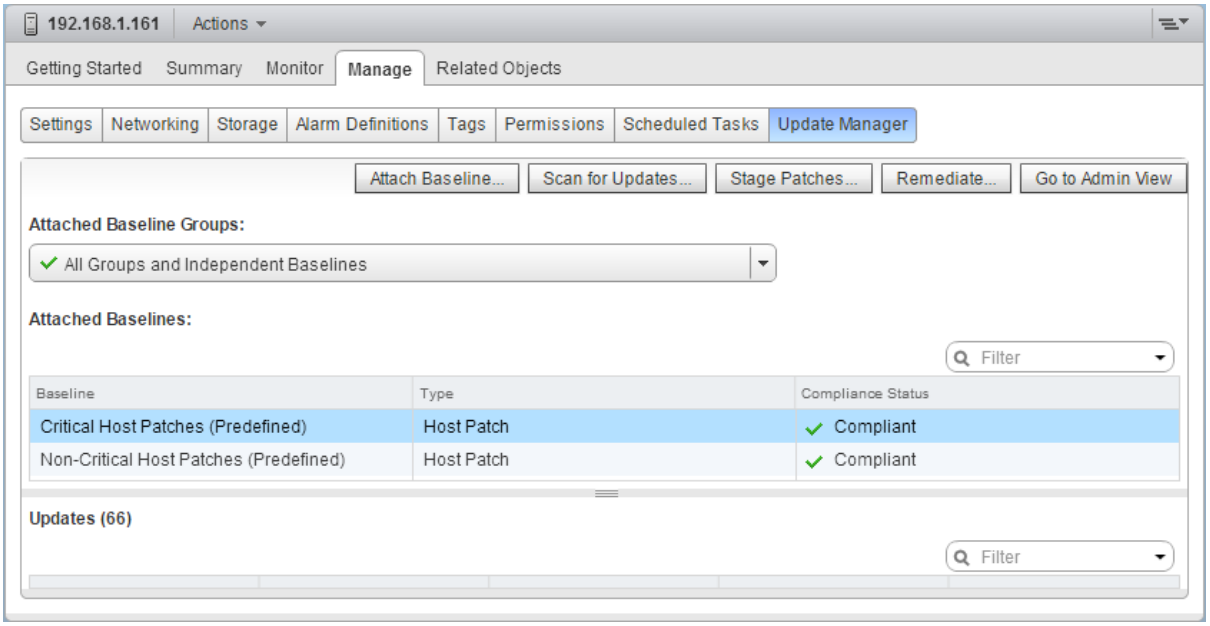
VMware vCenter Update Manager	6.0 U1
VMware ESX/ESXi 6.0 U1	✓
VMware ESX/ESXi 6.0	✓
VMware ESX/ESXi 5.5 U3	✓
VMware ESX/ESXi 5.5 U2	✓
VMware ESX/ESXi 5.5 U1	✓
VMware ESX/ESXi 5.5	✓

vCenter™ Server Appliance™ 6.0
Install
Upgrade

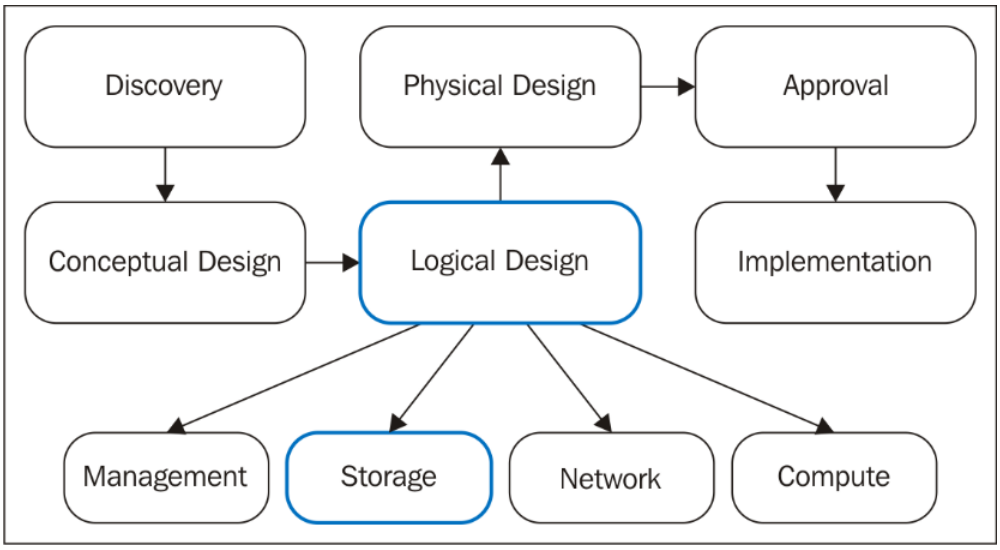

Platform Services Controller (PSC)
vCenter Server
vSphere Update Manager (VUM)
VUM Database
Microsoft SQL Express
or
Microsoft SQL
or
Oracle DB

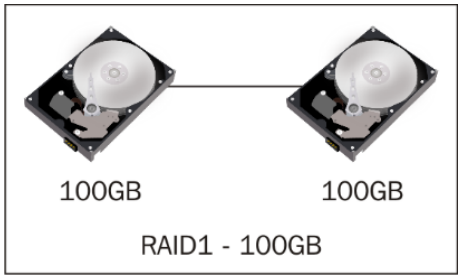

VMware® vCenter™ Installer
vmware vSphere
VMware vCenter Server
vCenter Server for Windows
VMware vCenter Desktop Client
vSphere Client
vSphere Update Manager
Server
Download Service
VMware vCenter Support Tools
vSphere Authentication Proxy
Server
vSphere Update Manager is a windows based program that enables centralized, automated patch and version management for ESXi hosts, virtual machines, and virtual appliances.
For a list of information you need to install this component, see the installation checklist:
http://www.vmware.com/
Embedded Database Option:
Use Microsoft SQL Server 2012 Express as the embedded database
This option is recommended for small scale deployments (maximum of 5 hosts and 50 VMs). If Microsoft® SQL Server® 2012 Express is not already installed on the system, it will be installed automatically prior to VUM installation.
Prerequisites for Microsoft® SQL Server® 2012 Express:
http://msdn.microsoft.com/library/ms143506%28v=SQL.110%29.aspx
Install
Explore Media
Exit

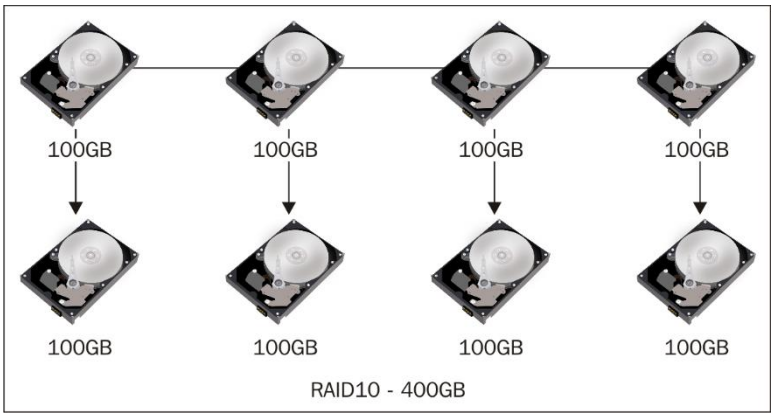

192.168.1.153
Actions
Getting Started
Monitor
Manage
Settings
Hosts Baselines
VMs/VAs Baselines
Patch Repository
ESXi Images
VA Upgrades
Go to compliance view
Filter
Baseline Name
Content
Type
Critical Host Patches (Prede...
66
Dynamic
Non-Critical Host Patches (...
244
Dynamic
2 items
Group Name
Component
ESXiPatch
Host
Critical Host Patches (Predefined)
Host Patch
Non-Critical Host Patches (Predefine
Host Patch
3 items

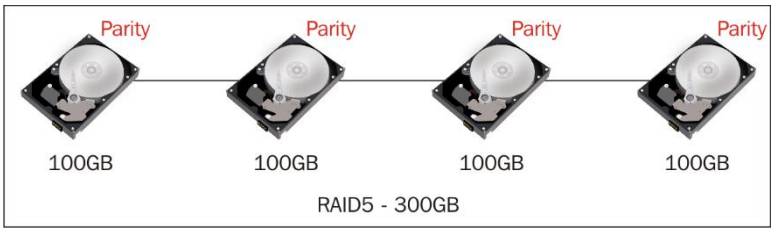

192.168.1.161
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Scheduled Tasks
Update Manager
Attach Baseline...
Scan for Updates...
Stage Patches...
Remediate...
Go to Admin View
Attached Baseline Groups:
All Groups and Independent Baselines
Attached Baselines:
Filter
Baseline
Type
Compliance Status
Critical Host Patches (Predefined)
Host Patch
Compliant
Non-Critical Host Patches (Predefined)
Host Patch
Compliant
Updates (66)
Filter

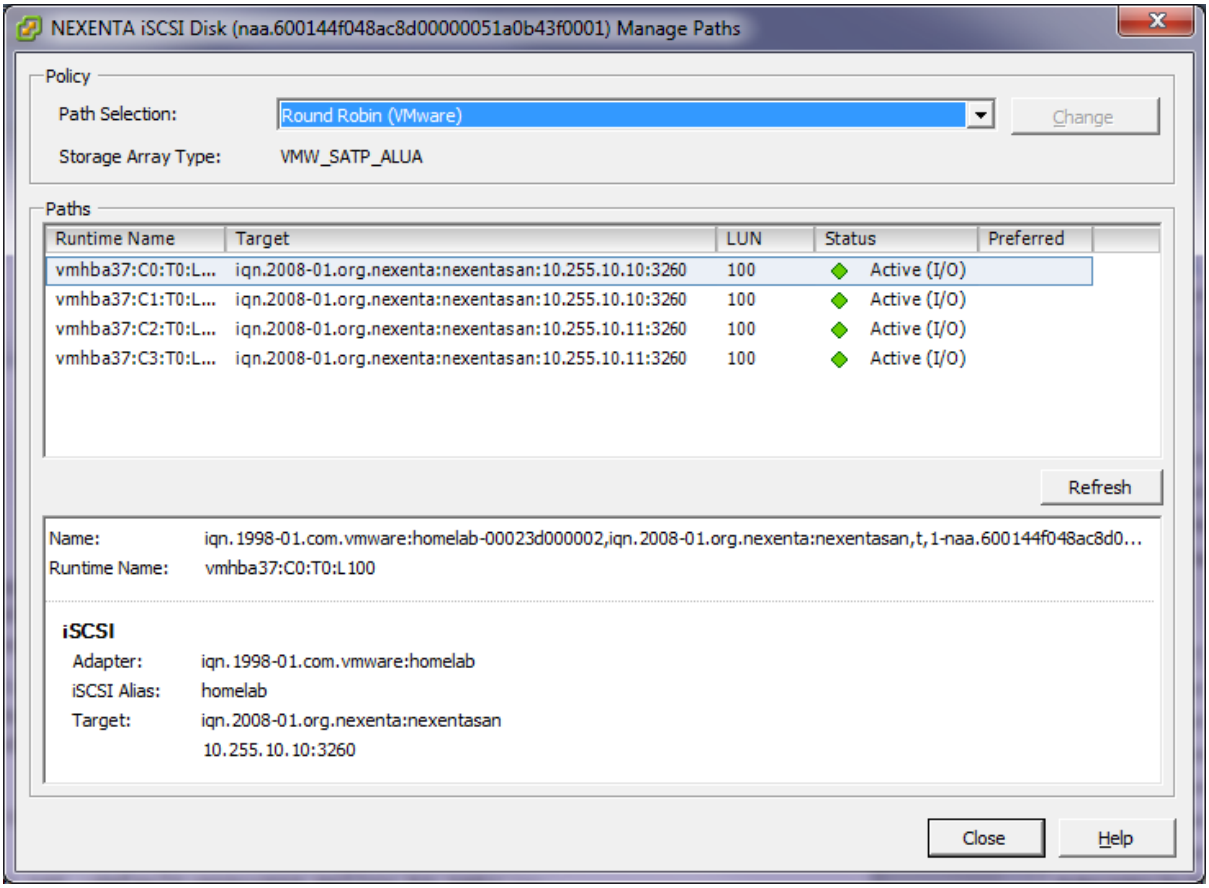
Chapter 5: vSphere Storage Design

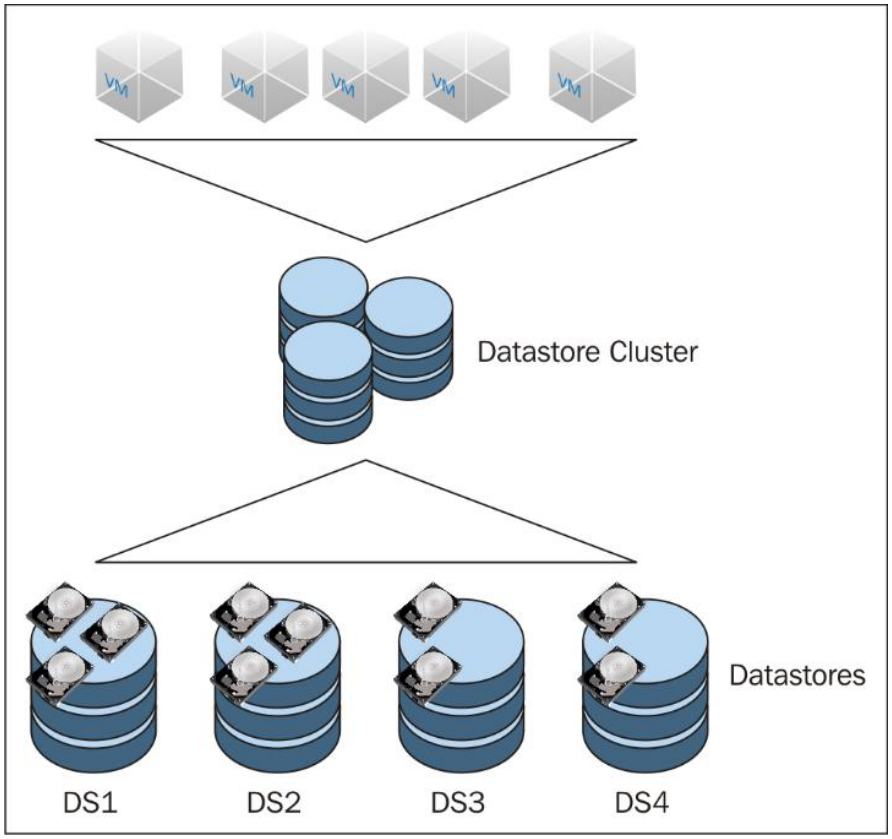


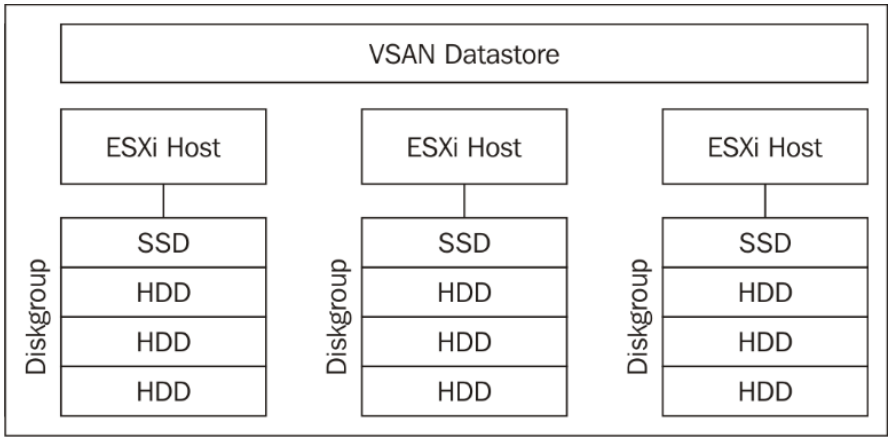



100GB
100GB
100GB
100GB
100GB
100GB
100GB
100GB
RAID10 - 400GB


Parity
Parity
Parity
Parity
100GB
100GB
100GB
100GB
RAID5 - 300GB


NEXENTA iSCSI Disk (naa.600144f048ac8d00000051a0b43f0001) Manage Paths
Policy
Path Selection:
Round Robin (VMware)
Change
Storage Array Type:
VMW_SATP_ALUA
Paths
Runtime Name
Target
LUN
Status
Preferred
vmhba37:C0:T0:L...
iqn.2008-01.org.nexenta:nexentasan:10.255.10.10:3260
100
Active (I/O)
vmhba37:C1:T0:L...
iqn.2008-01.org.nexenta:nexentasan:10.255.10.10:3260
100
Active (I/O)
vmhba37:C2:T0:L...
iqn.2008-01.org.nexenta:nexentasan:10.255.10.11:3260
100
Active (I/O)
vmhba37:C3:T0:L...
iqn.2008-01.org.nexenta:nexentasan:10.255.10.11:3260
100
Active (I/O)
Refresh
Name:
iqn.1998-01.com.vmware:homelab-00023d000002,iqn.2008-01.org.nexenta:nexentasan,t,1-naa.600144f048ac8d0...
Runtime Name:
vmhba37:C0:T0:L100
iSCSI
Adapter:
iqn.1998-01.com.vmware:homelab
iSCSI Alias:
homelab
Target:
iqn.2008-01.org.nexenta:nexentasan
10.255.10.10:3260
Close
Help


VM
VM
VM
VM
VM
Datastore Cluster
Datastores
DS1
DS2
DS3
DS4


VSAN Datastore
ESXi Host
ESXi Host
ESXi Host
Diskgroup
Diskgroup
Diskgroup
SSD
HDD
HDD
HDD
SSD
HDD
HDD
HDD
SSD
HDD
HDD
HDD

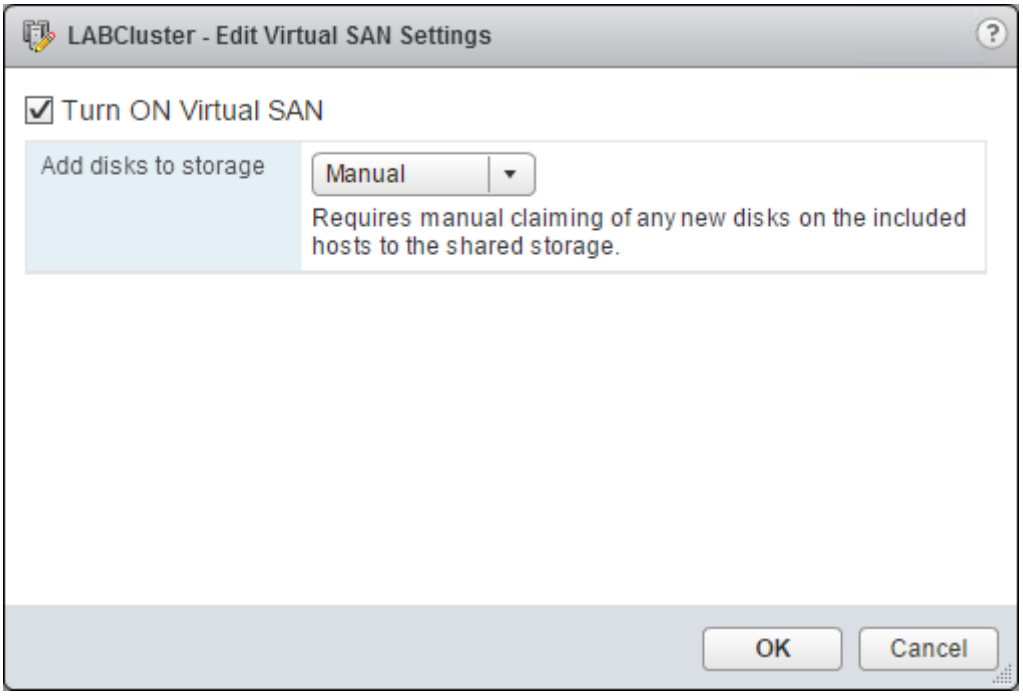
VMkernel port settings

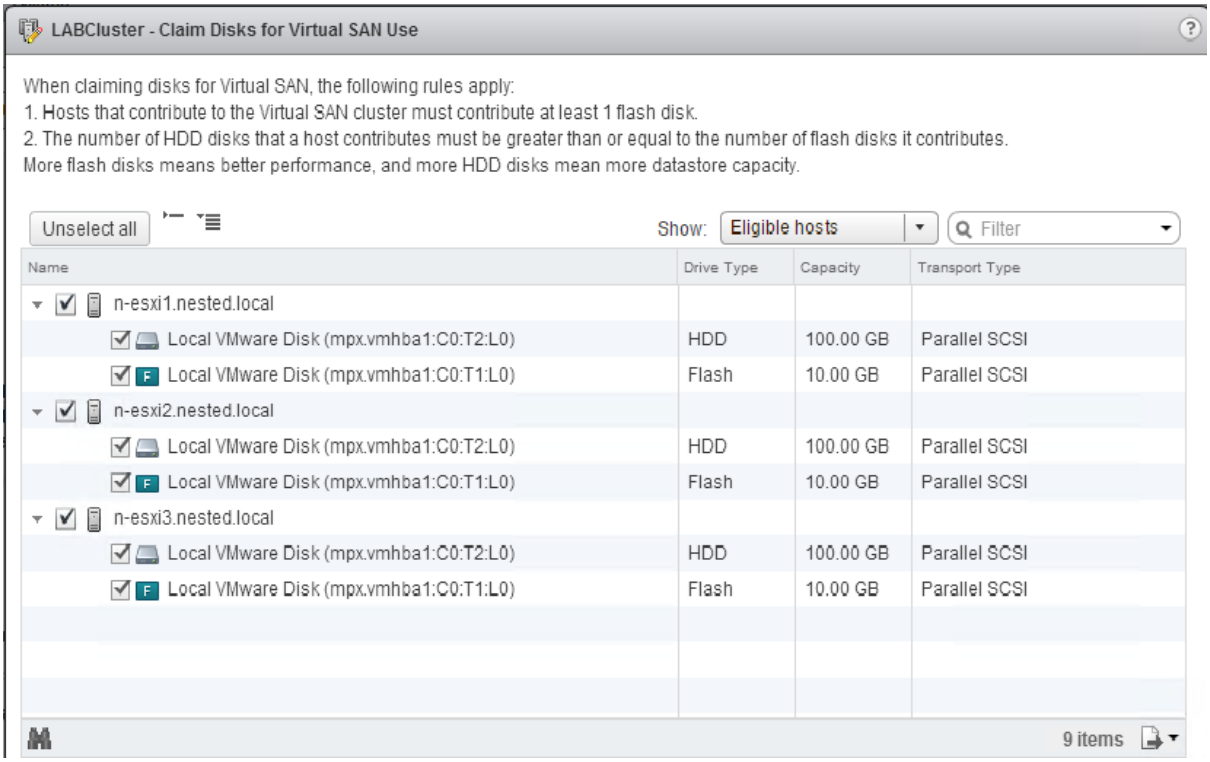
TCP/IP stack: Default

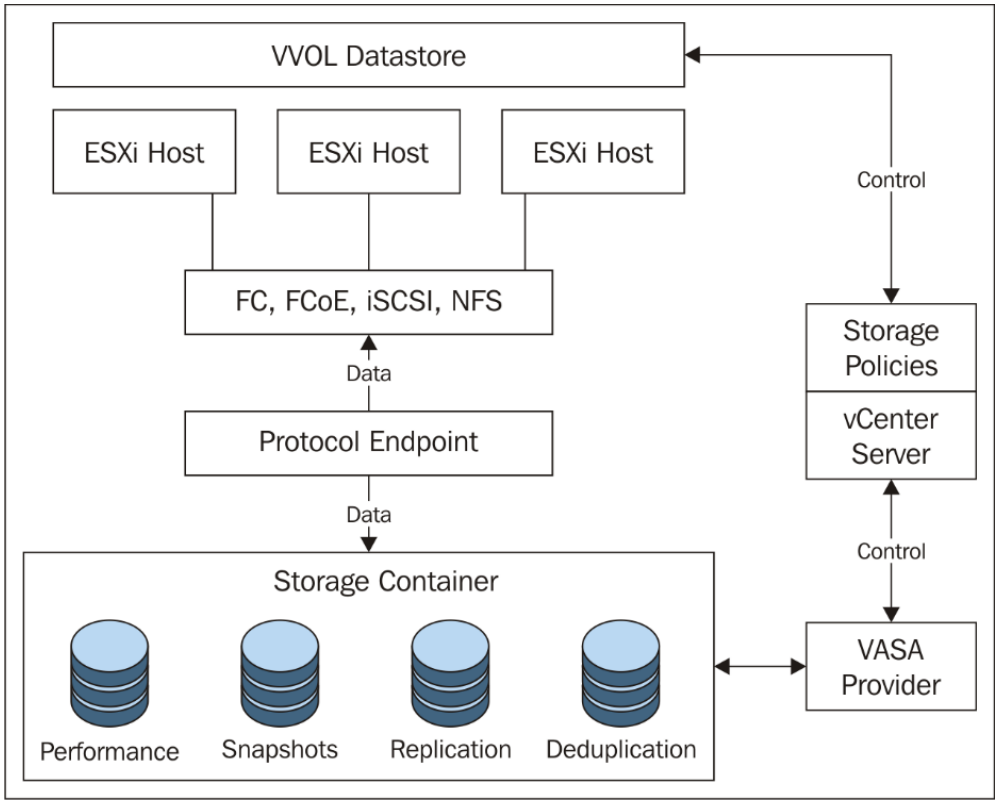
Available services

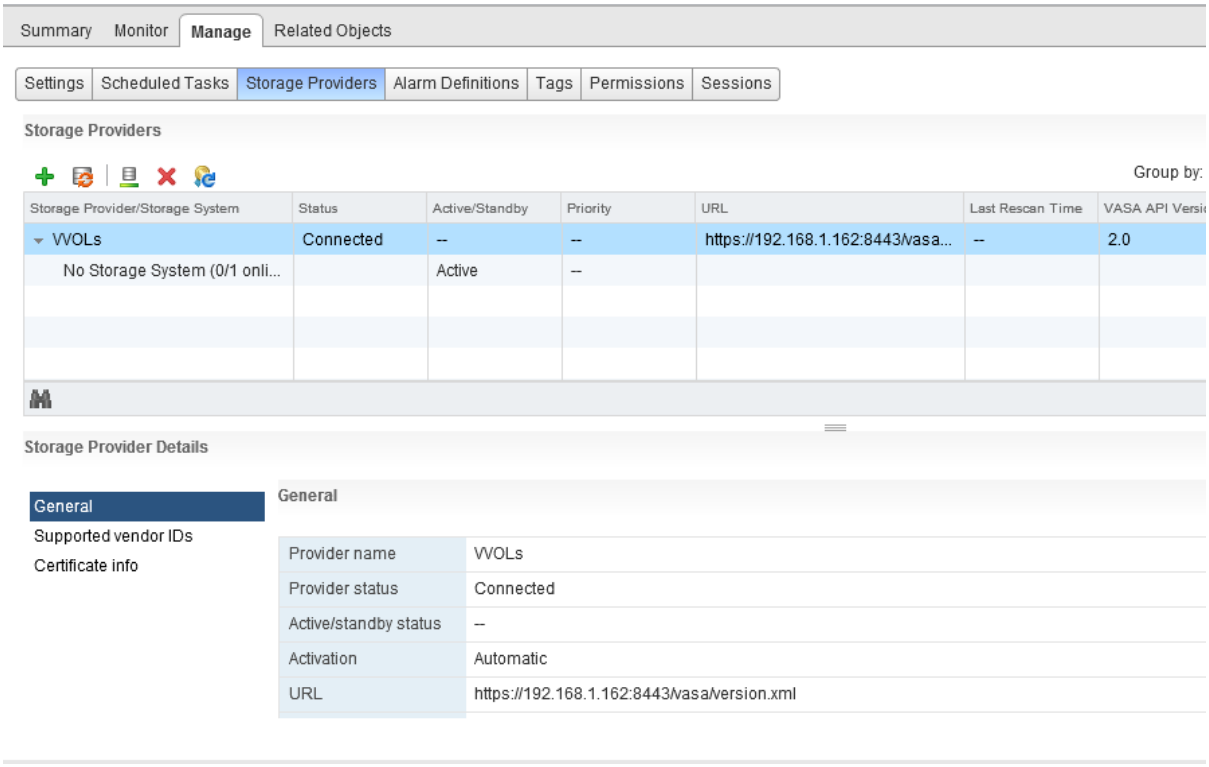
Enable services:

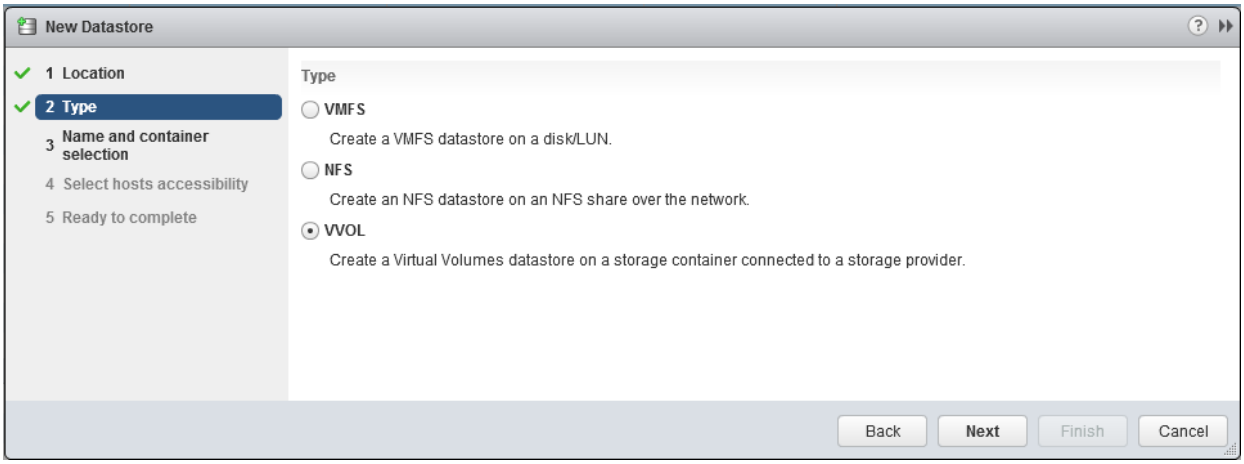
- [ ] vMotion traffic
- [ ] Provisioning traffic
- [ ] Fault Tolerance logging
- [ ] Management traffic
- [ ] vSphere Replication traffic
- [ ] vSphere Replication NFC traffic
- [x] Virtual SAN traffic

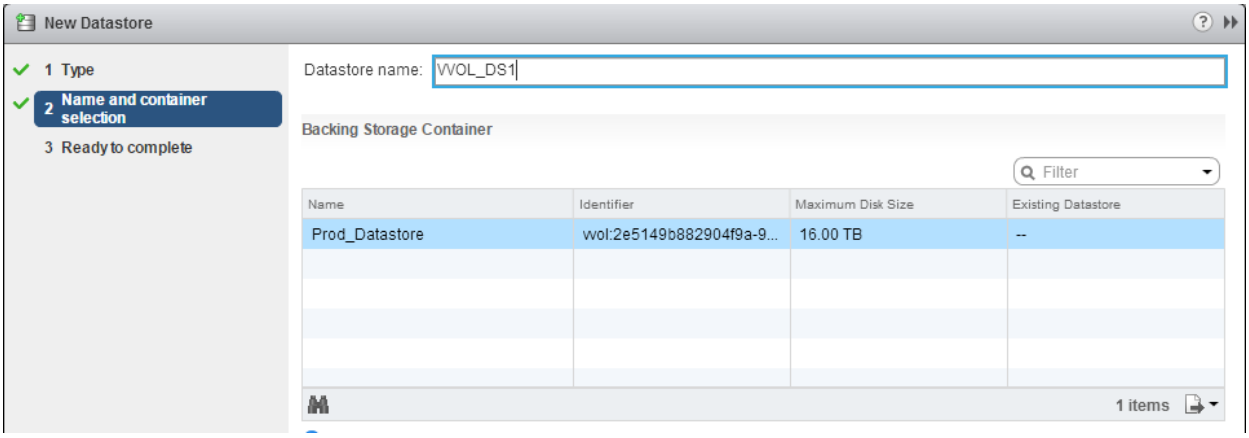



LABCluster - Claim Disks for Virtual SAN Use
When claiming disks for Virtual SAN, the following rules apply:
1. Hosts that contribute to the Virtual SAN cluster must contribute at least 1 flash disk.
2. The number of HDD disks that a host contributes must be greater than or equal to the number of flash disks it contributes.
More flash disks means better performance, and more HDD disks mean more datastore capacity.
Unselect all
Show:
Eligible hosts
Filter
Name
Drive Type
Capacity
Transport Type
n-esxi1.nested.local
Local VMware Disk (mpx.vmhba1:C0:T2:L0)
HDD
100.00 GB
Parallel SCSI
Local VMware Disk (mpx.vmhba1:C0:T1:L0)
Flash
10.00 GB
Parallel SCSI
n-esxi2.nested.local
Local VMware Disk (mpx.vmhba1:C0:T2:L0)
HDD
100.00 GB
Parallel SCSI
Local VMware Disk (mpx.vmhba1:C0:T1:L0)
Flash
10.00 GB
Parallel SCSI
n-esxi3.nested.local
Local VMware Disk (mpx.vmhba1:C0:T2:L0)
HDD
100.00 GB
Parallel SCSI
Local VMware Disk (mpx.vmhba1:C0:T1:L0)
Flash
10.00 GB
Parallel SCSI
9 items

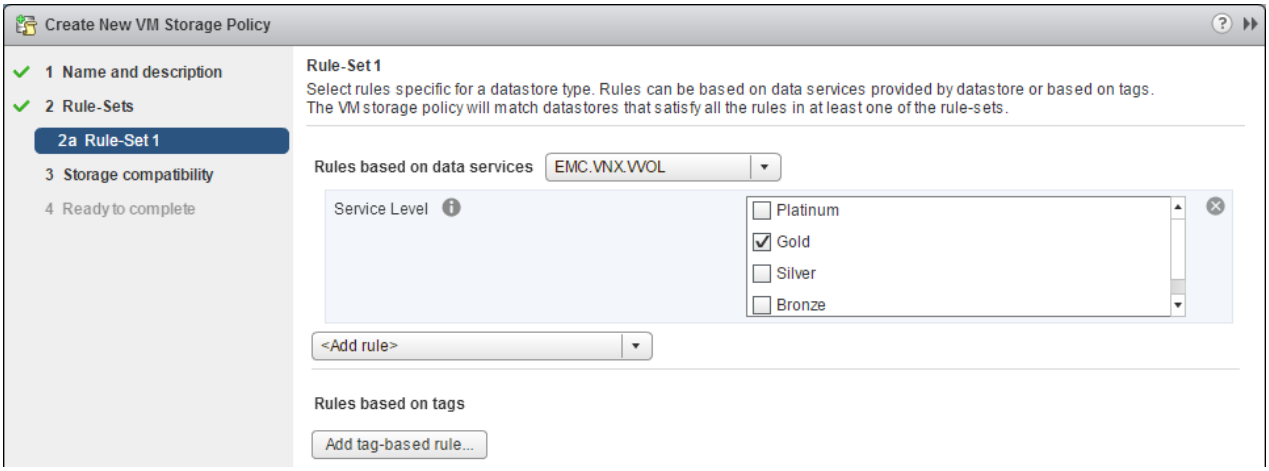

VVOL Datastore
ESXi Host
ESXi Host
ESXi Host
Control
FC, FCoE, iSCSI, NFS
Storage Policies
Data
vCenter Server
Protocol Endpoint
Data
Control
Storage Container
VASA Provider
Performance
Snapshots
Replication
Deduplication

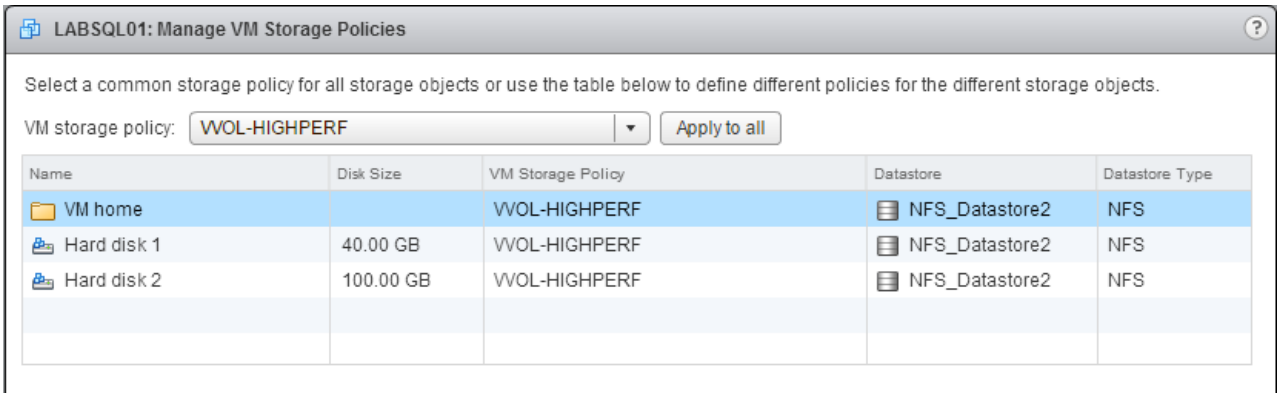

Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Storage Providers
Alarm Definitions
Tags
Permissions
Sessions
Storage Providers
Group by:
Storage Provider/Storage System
Status
Active/Standby
Priority
URL
Last Rescan Time
VASA API Versi
VVOLs
Connected
--
--
https://192.168.1.162:8443/vasa...
--
2.0
No Storage System (0/1 onli...
Active
--
Storage Provider Details
General
Supported vendor IDs
Certificate info
General
Provider name
VVOLs
Provider status
Connected
Active/standby status
--
Activation
Automatic
URL
https://192.168.1.162:8443/vasa/version.xml

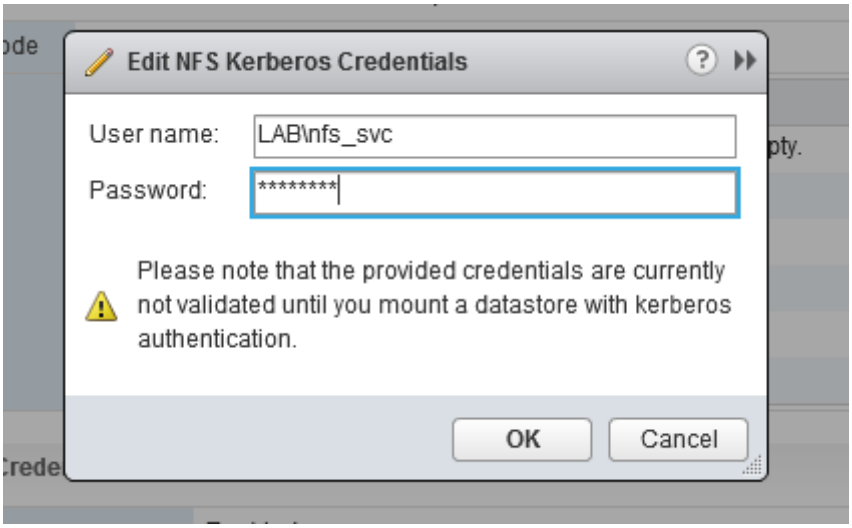

New Datastore
1 Location
2 Type
3 Name and container selection
4 Select hosts accessibility
5 Ready to complete
Type
VMFS
Create a VMFS datastore on a disk/LUN.
NFS
Create an NFS datastore on an NFS share over the network.
VVOL
Create a Virtual Volumes datastore on a storage container connected to a storage provider.
Back
Next
Finish
Cancel

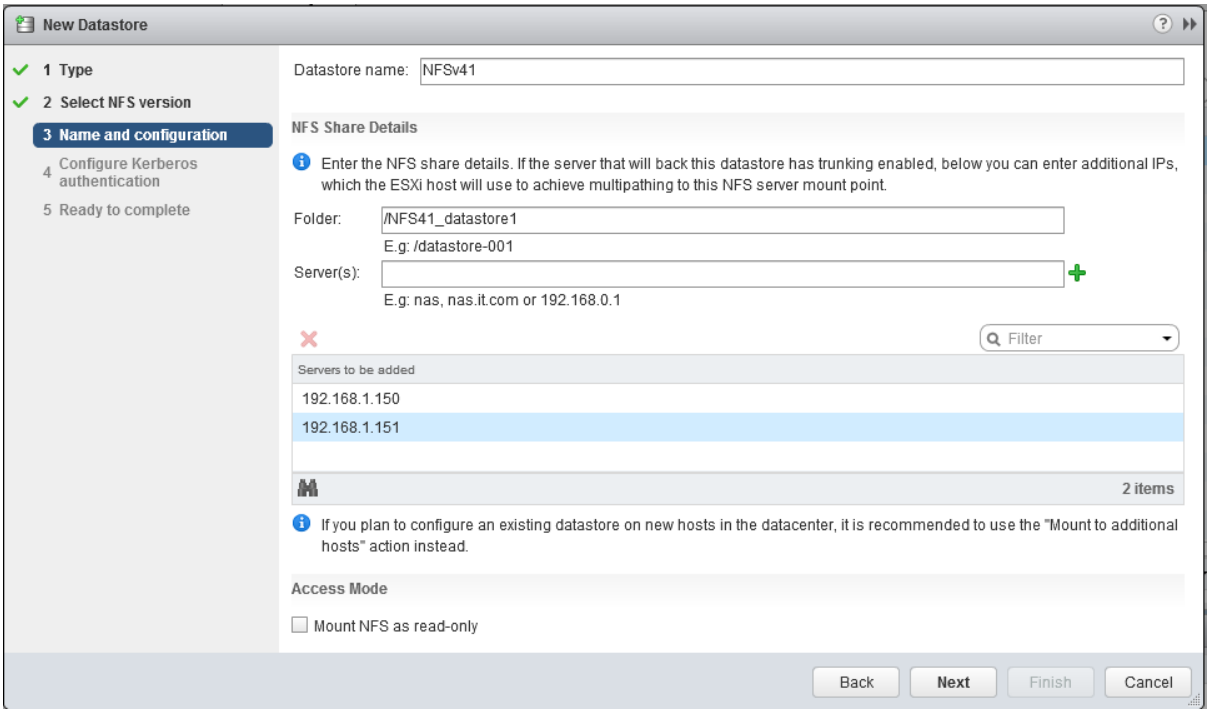

New Datastore
1 Type
2 Name and container selection
3 Ready to complete
Datastore name: VVOL_DS1
Backing Storage Container
Filter
Name
Identifier
Maximum Disk Size
Existing Datastore
Prod_Datastore
vol:2e5149b882904f9a-9...
16.00 TB
--
1 items

VM Storage Policies
Objects
Actions
Name
Description
Virtual SAN Default Storage ...
Storage policy used as default f...
VVol No Requirements Policy
Allow the datastore to determine...
Synology NFS
Synology NFS Storage
iSCSI
Synology iSCSI Connected Stor...

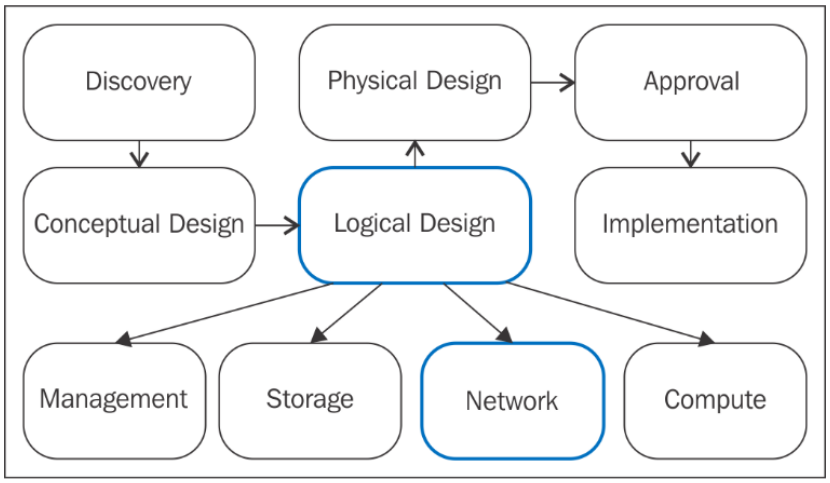

Create New VM Storage Policy
1 Name and description
2 Rule-Sets
2a Rule-Set 1
3 Storage compatibility
4 Ready to complete
Rule-Set 1
Select rules specific for a datastore type. Rules can be based on data services provided by datastore or based on tags.
The VM storage policy will match datastores that satisfy all the rules in at least one of the rule-sets.
Rules based on data services
EMC.VNX.VVOL
Service Level
Platinum
Gold
Silver
Bronze
<Add rule>
Rules based on tags
Add tag-based rule...

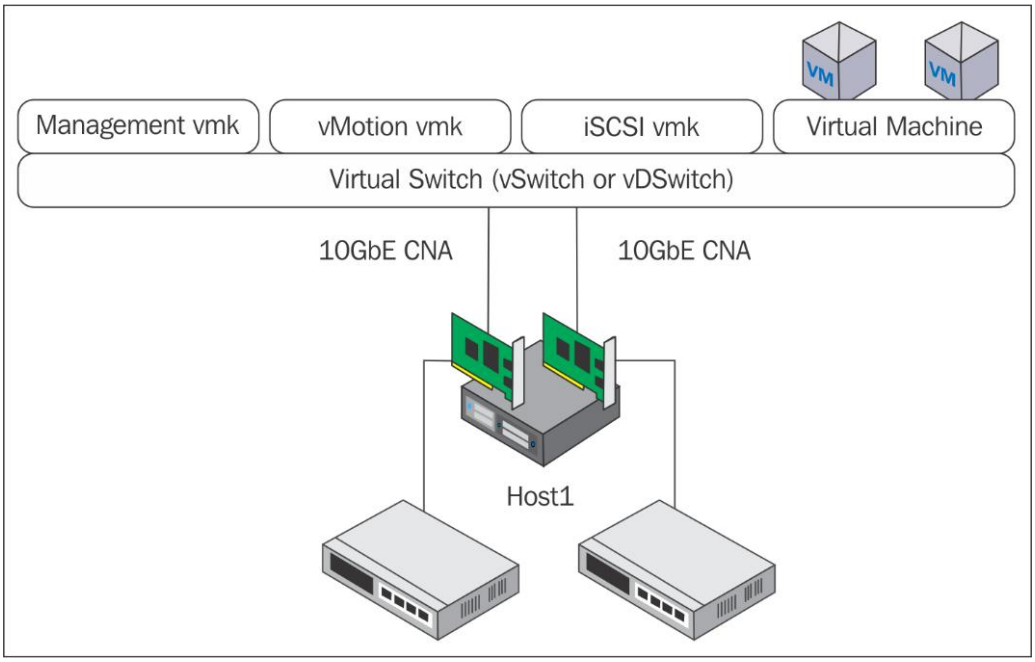

LABSQL01: Manage VM Storage Policies
Select a common storage policy for all storage objects or use the table below to define different policies for the different storage objects.
VM storage policy:
VVOL-HIGHPERF
Apply to all
Name
Disk Size
VM Storage Policy
Datastore
Datastore Type
VM home
VVOL-HIGHPERF
NFS_Datastore2
NFS
Hard disk 1
40.00 GB
VVOL-HIGHPERF
NFS_Datastore2
NFS
Hard disk 2
100.00 GB
VVOL-HIGHPERF
NFS_Datastore2
NFS

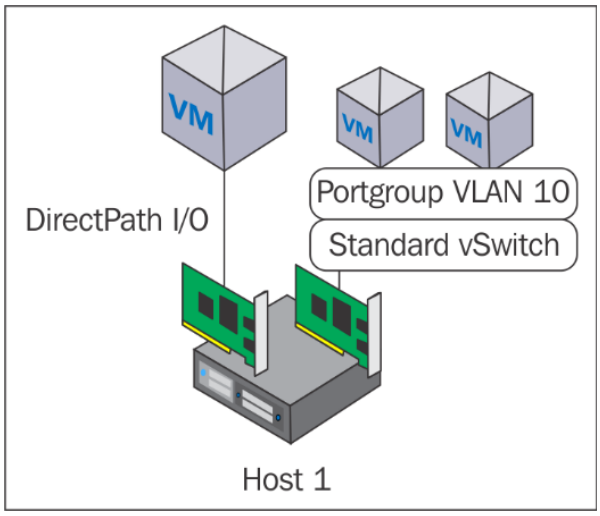

Edit NFS Kerberos Credentials
User name:
LAB\nfs_svc
Password:
****
Please note that the provided credentials are currently not validated until you mount a datastore with kerberos authentication.
OK
Cancel

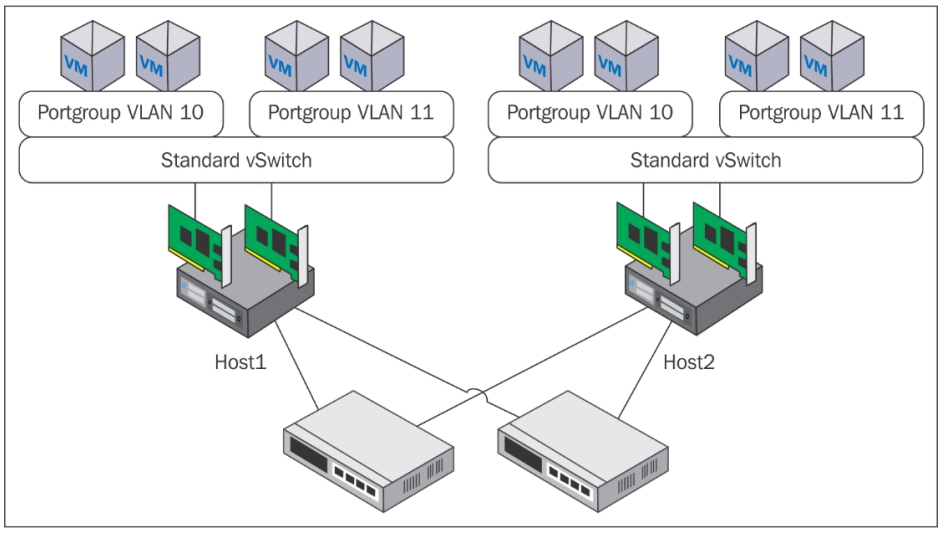

New Datastore
1 Type
2 Select NFS version
3 Name and configuration
4 Configure Kerberos authentication
5 Ready to complete
Datastore name: NFSv41
NFS Share Details
Enter the NFS share details. If the server that will back this datastore has trunking enabled, below you can enter additional IPs, which the ESXi host will use to achieve multipathing to this NFS server mount point.
Folder: /NFS41_datastore1
E.g: /datastore-001
Server(s):
E.g: nas, nas.it.com or 192.168.0.1
Filter
Servers to be added
192.168.1.150
192.168.1.151
2 items
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 instead.
Access Mode
Mount NFS as read-only
Back
Next
Finish
Cancel

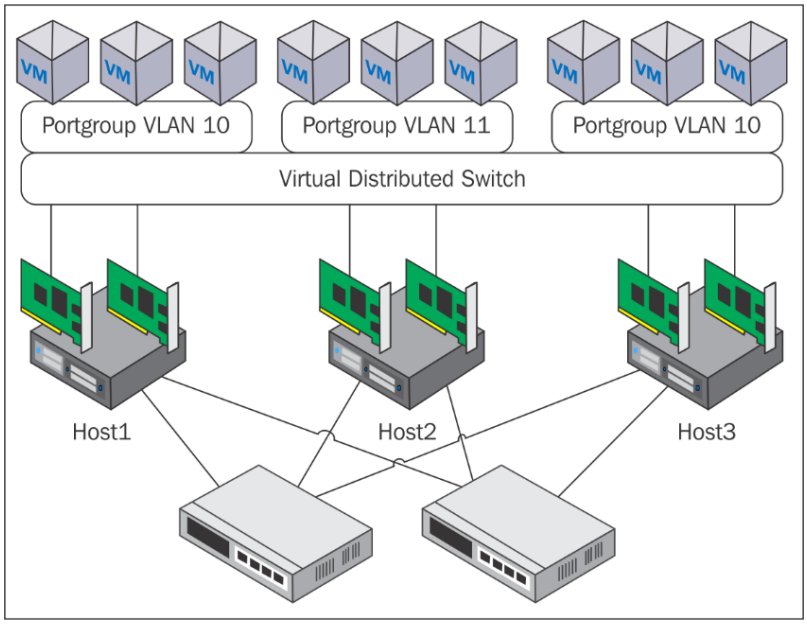
Chapter 6: vSphere Network Design

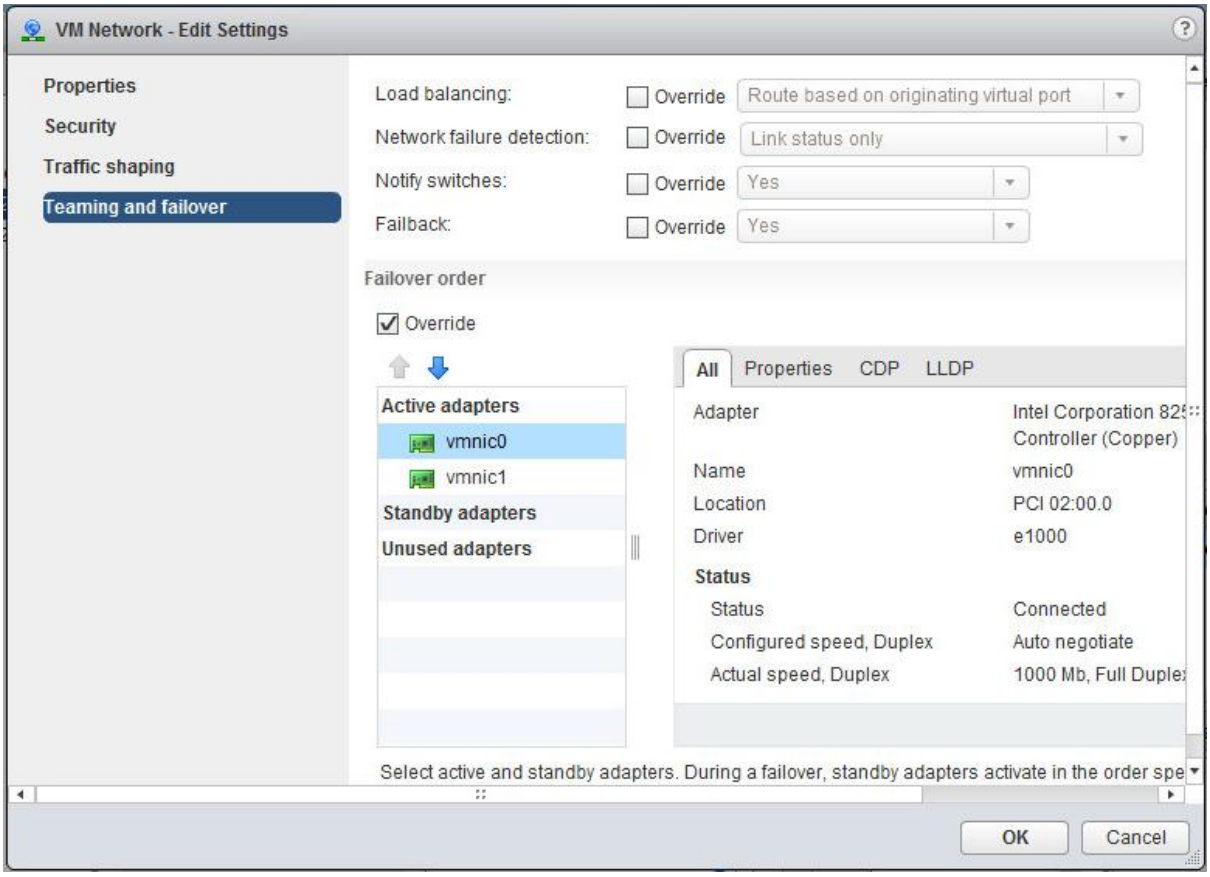




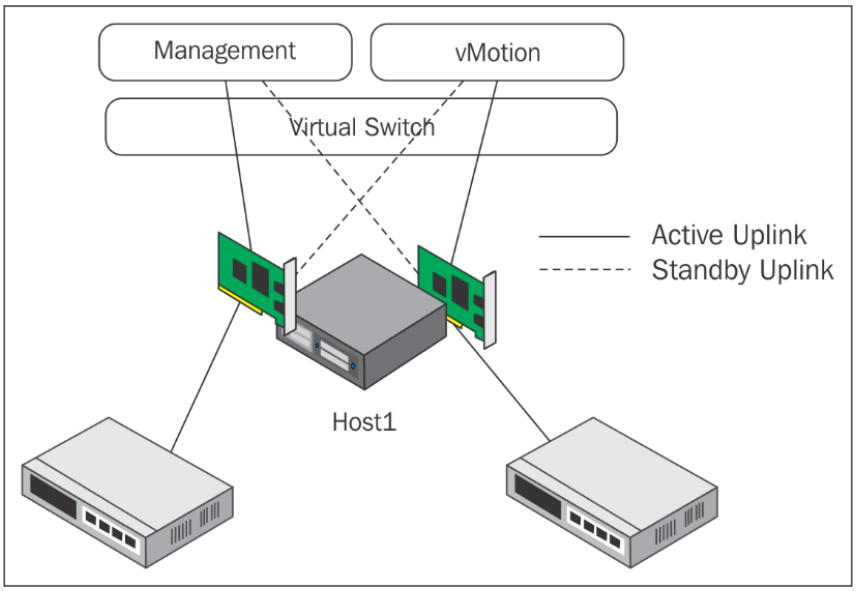

VM
VM
VM
Portgroup VLAN 10
Standard vSwitch
DirectPath I/O
Host 1

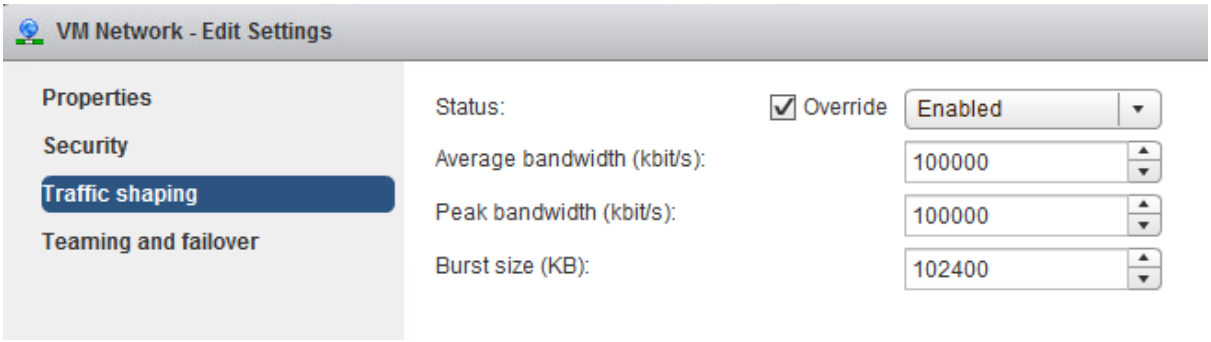

VM
VM
VM
VM
VM
VM
VM
VM
Portgroup VLAN 10
Portgroup VLAN 11
Portgroup VLAN 10
Portgroup VLAN 11
Standard vSwitch
Standard vSwitch
Host1
Host2

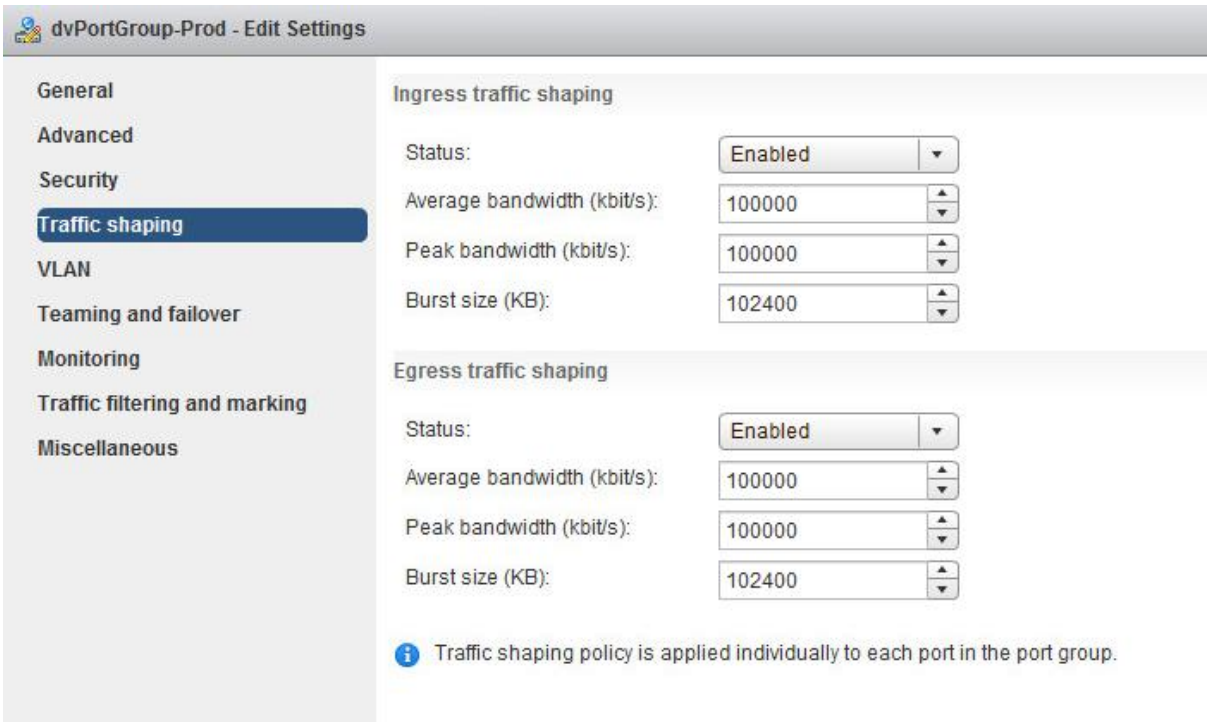

VM
VM
VM
VM
VM
VM
VM
VM
VM
Portgroup VLAN 10
Portgroup VLAN 11
Portgroup VLAN 10
Virtual Distributed Switch
Host1
Host2
Host3

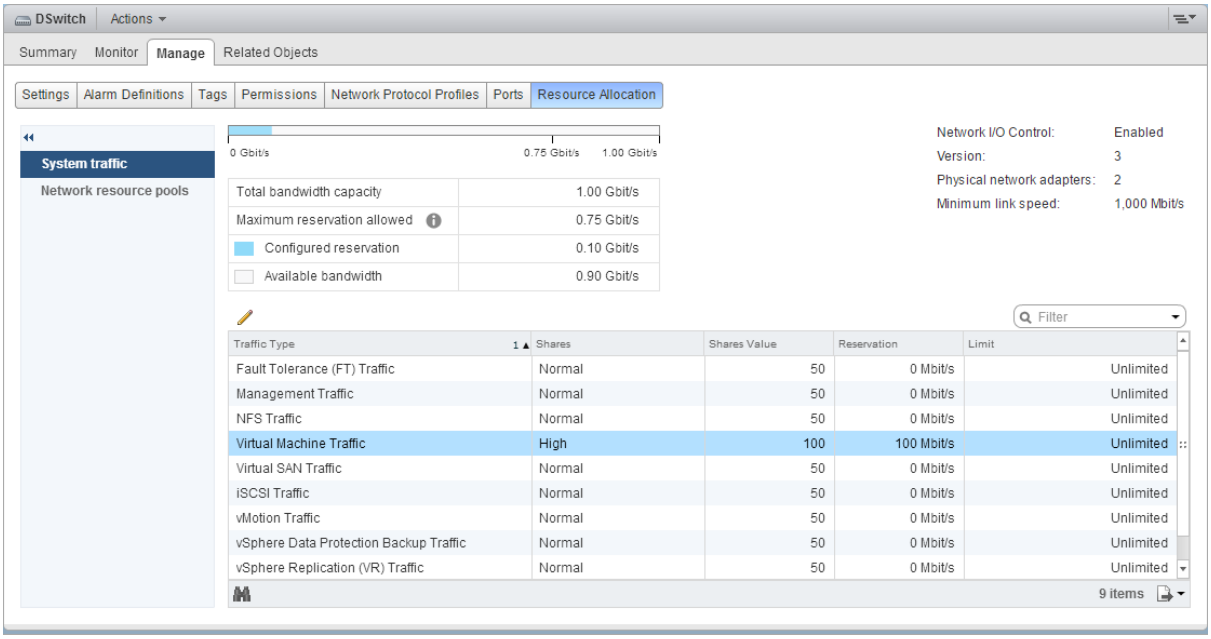

VM Network - Edit Settings
Properties
Security
Traffic shaping
Teaming and failover
Load balancing:
Override
Route based on originating virtual port
Network failure detection:
Override
Link status only
Notify switches:
Override
Yes
Failback:
Override
Yes
Failover order
Override
Active adapters
vmnic0
vmnic1
Standby adapters
Unused adapters
All
Properties
CDP
LLDP
Adapter
Intel Corporation 82
Controller (Copper)
Name
vmnic0
Location
PCI 02:00.0
Driver
e1000
Status
Status
Connected
Configured speed, Duplex
Auto negotiate
Actual speed, Duplex
1000 Mb, Full Duple
Select active and standby adapters. During a failover, standby adapters activate in the order spe
OK
Cancel

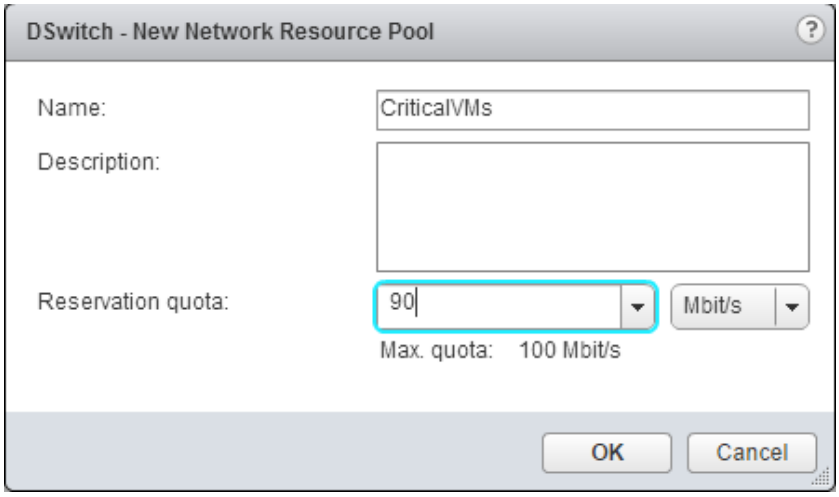
Teaming and failover
Failback:
Override
Yes
Failover order
Override
Active adapters
vmnic0
Standby adapters
vmnic1
Unused adapters
All
Prope
Adapter
Name
Location
Driver
Status

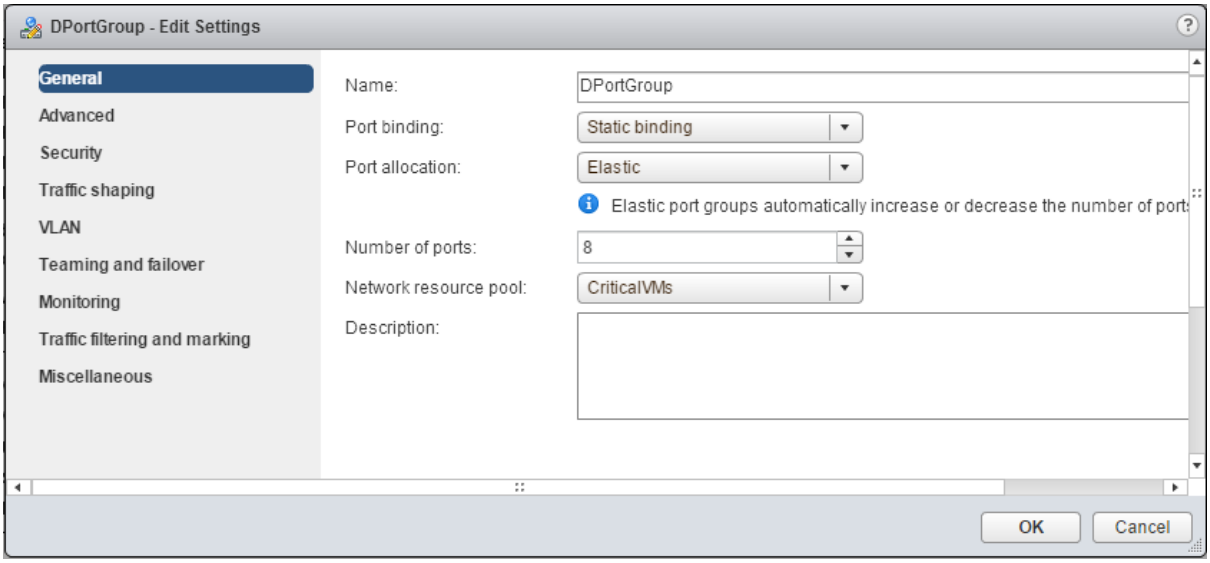

Management
vMotion
Virtual Switch
Active Uplink
Standby Uplink
Host1

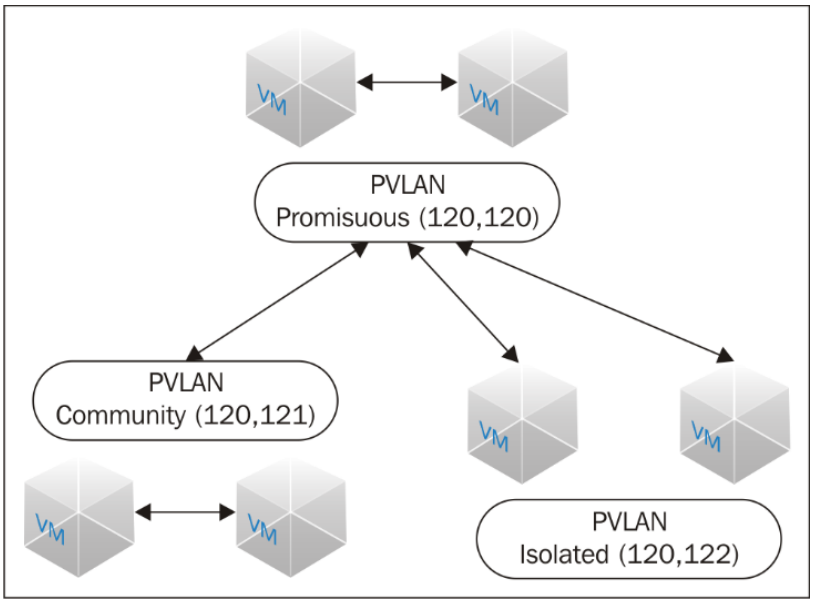

VM Network - Edit Settings
Properties
Security
Traffic shaping
Teaming and failover
Status:
Override
Enabled
Average bandwidth (kbit/s):
100000
Peak bandwidth (kbit/s):
100000
Burst size (KB):
102400

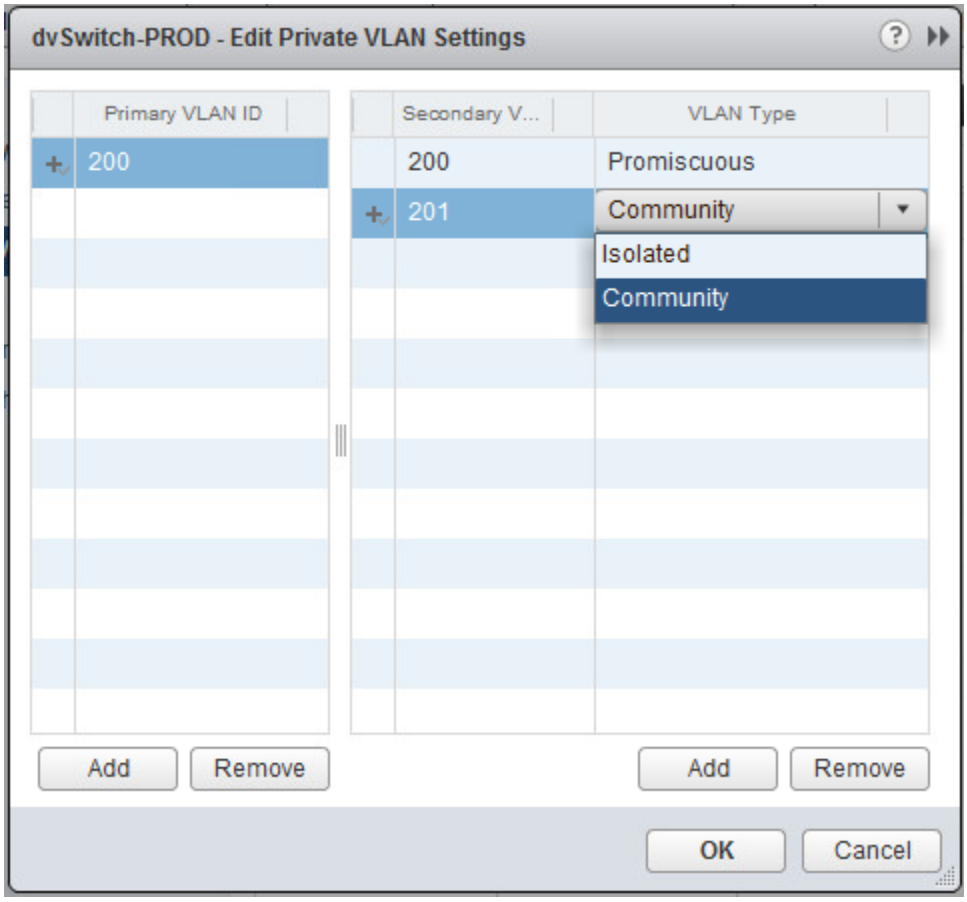

dvPortGroup-Prod - Edit Settings
General
Advanced
Security
Traffic shaping
VLAN
Teaming and failover
Monitoring
Traffic filtering and marking
Miscellaneous
Ingress traffic shaping
Status:
Enabled
Average bandwidth (kbit/s):
100000
Peak bandwidth (kbit/s):
100000
Burst size (KB):
102400
Egress traffic shaping
Status:
Enabled
Average bandwidth (kbit/s):
100000
Peak bandwidth (kbit/s):
100000
Burst size (KB):
102400
Traffic shaping policy is applied individually to each port in the port group.

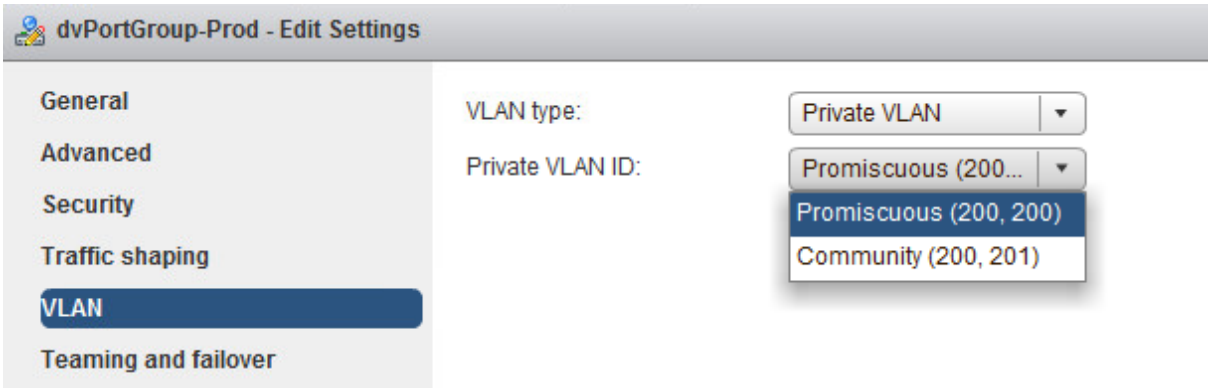

DSwitch
Actions
Summary
Monitor
Manage
Related Objects
Settings
Alarm Definitions
Tags
Permissions
Network Protocol Profiles
Ports
Resource Allocation
System traffic
Network resource pools
0 Gbit/s
0.75 Gbit/s
1.00 Gbit/s
Total bandwidth capacity 1.00 Gbit/s
Maximum reservation allowed 0.75 Gbit/s
Configured reservation 0.10 Gbit/s
Available bandwidth 0.90 Gbit/s
Network I/O Control: Enabled
Version: 3
Physical network adapters: 2
Minimum link speed: 1,000 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 100 100 Mbit/s Unlimited
Virtual SAN Traffic Normal 50 0 Mbit/s Unlimited
iSCSI Traffic Normal 50 0 Mbit/s Unlimited
vMotion 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
9 items

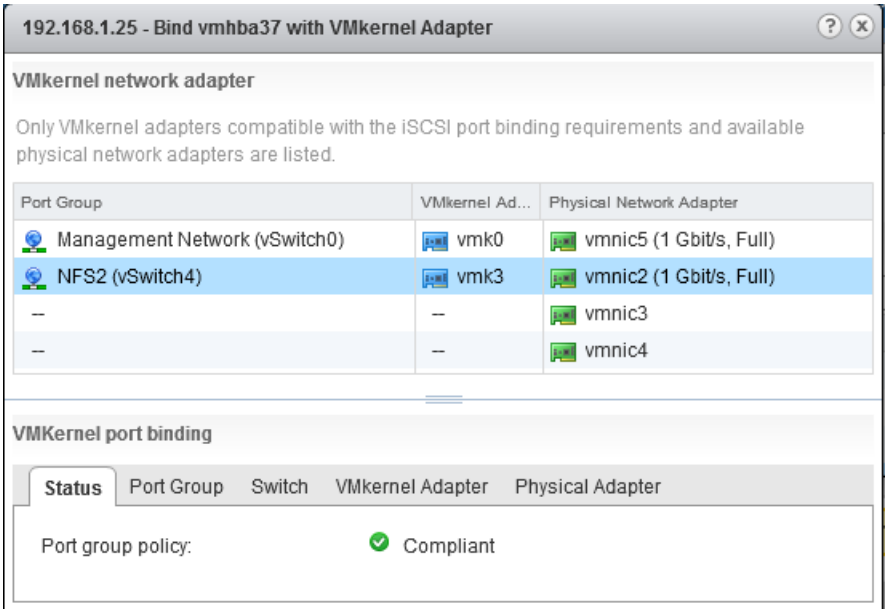

DSwitch - New Network Resource Pool
Name:
CriticalVMs
Description:
Reservation quota:
90
Mbit/s
Max. quota: 100 Mbit/s
OK
Cancel

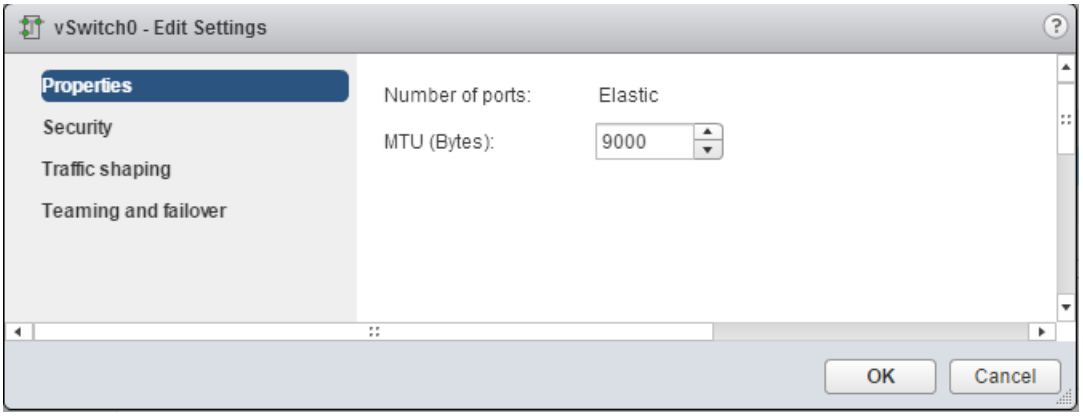

DPortGroup - Edit Settings
General
Advanced
Security
Traffic shaping
VLAN
Teaming and failover
Monitoring
Traffic filtering and marking
Miscellaneous
Name:
DPortGroup
Port binding:
Static binding
Port allocation:
Elastic
Elastic port groups automatically increase or decrease the number of port
Number of ports:
8
Network resource pool:
CriticalVMs
Description:
OK
Cancel

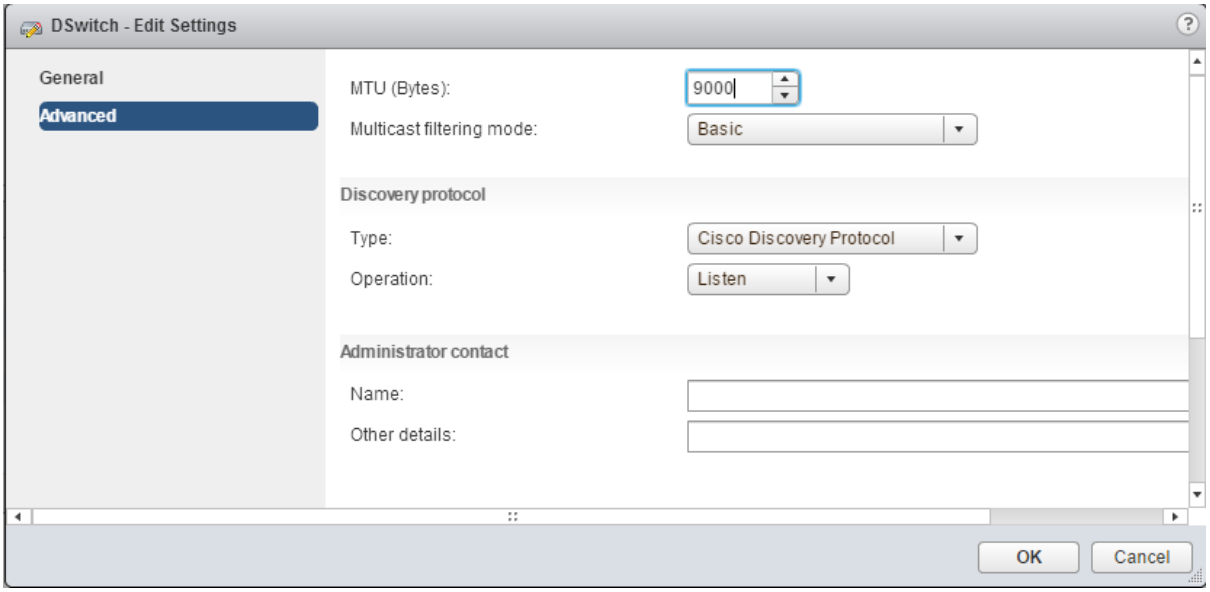

VM
VM
PVLAN
Promisuous (120,120)
PVLAN
Community (120,121)
VM
VM
VM
VM
PVLAN
Isolated (120,122)

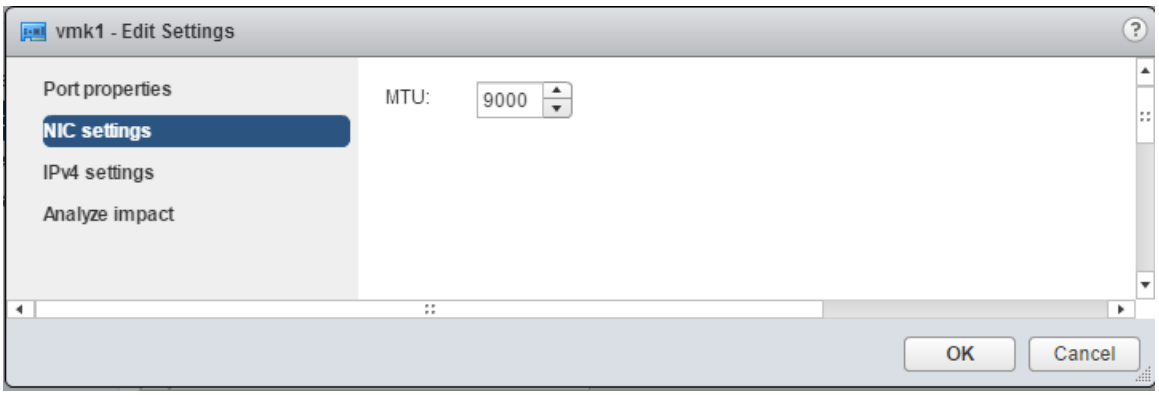

dvSwitch-PROD - Edit Private VLAN Settings
Primary VLAN ID
Secondary V...
VLAN Type
200
200
Promiscuous
201
Community
Isolated
Community
Add
Remove
Add
Remove
OK
Cancel

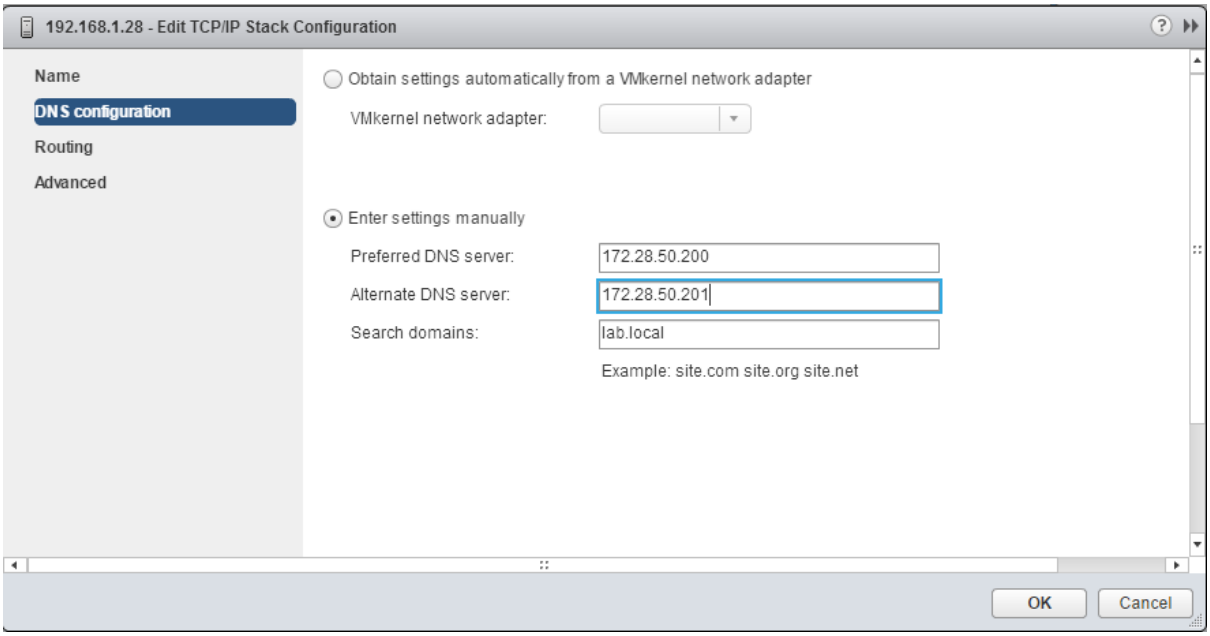

dvPortGroup-Prod - Edit Settings
General
Advanced
Security
Traffic shaping
VLAN
Teaming and failover
VLAN type:
Private VLAN
Private VLAN ID:
Promiscuous (200...
Promiscuous (200, 200)
Community (200, 201)


192.168.1.25 - Bind vmhba37 with VMkernel Adapter
VMkernel network adapter
Only VMkernel adapters compatible with the iSCSI port binding requirements and available physical network adapters are listed.
Port Group
VMkernel Ad...
Physical Network Adapter
Management Network (vSwitch0)
vmk0
vmnic5 (1 Gbit/s, Full)
NFS2 (vSwitch4)
vmk3
vmnic2 (1 Gbit/s, Full)
vmnic3
vmnic4
VMKernel port binding
Status
Port Group
Switch
VMkernel Adapter
Physical Adapter
Port group policy:
Compliant

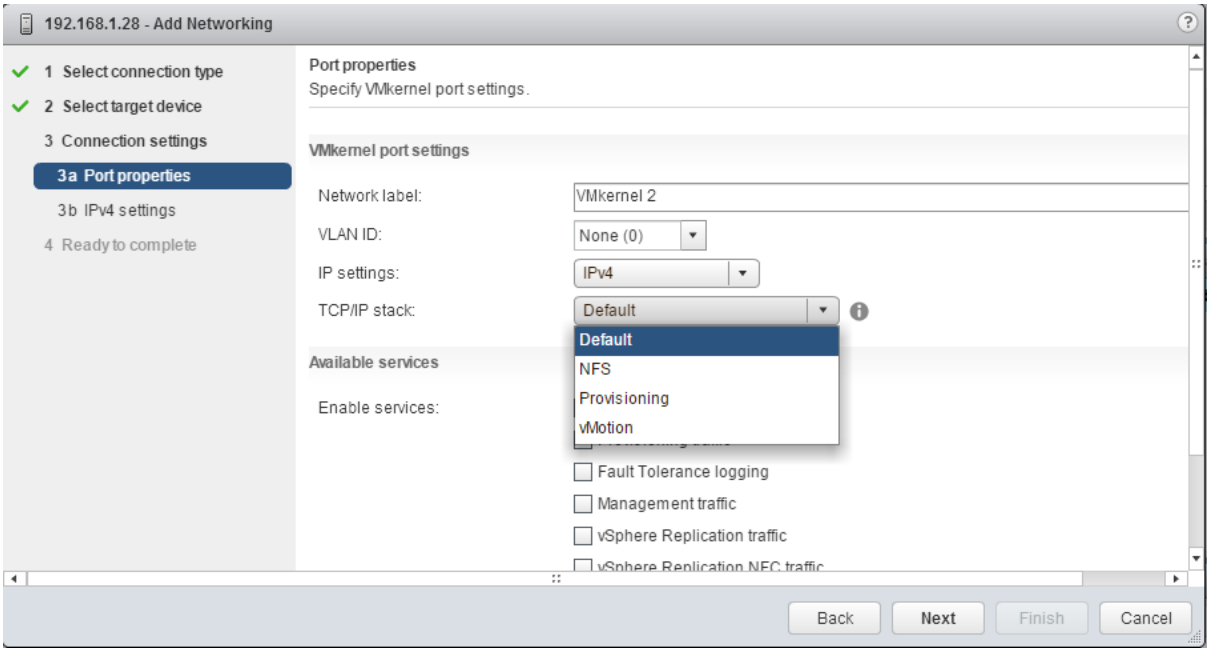

vSwitch0 - Edit Settings
Properties
Security
Traffic shaping
Teaming and failover
Number of ports:
Elastic
MTU (Bytes):
9000
OK
Cancel

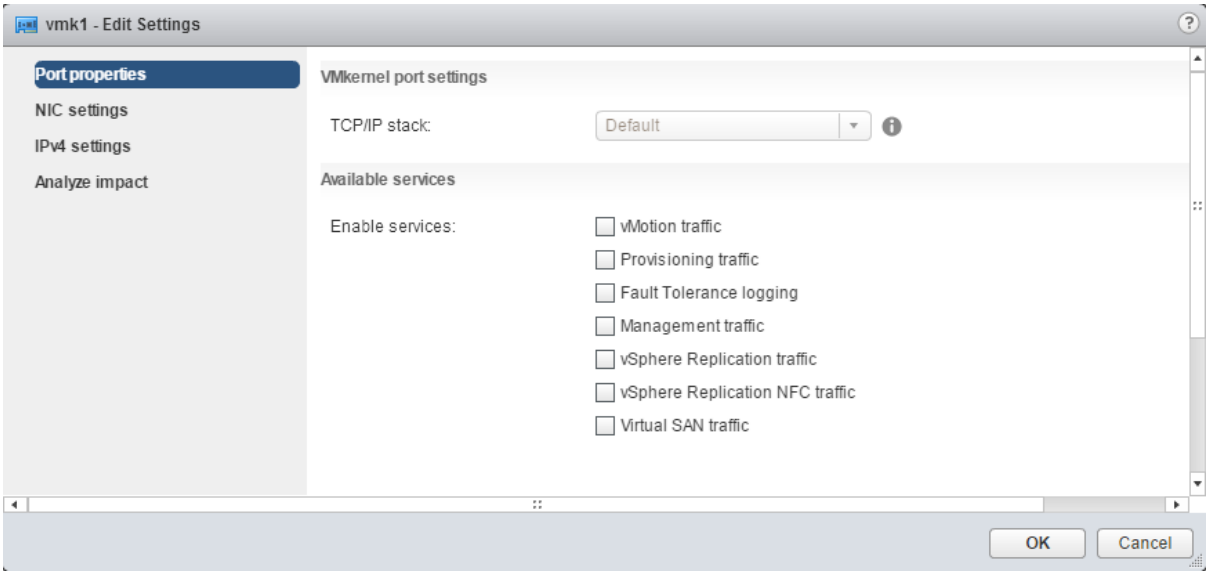

DSwitch - Edit Settings
General
Advanced
MTU (Bytes):
9000
Multicast filtering mode:
Basic
Discovery protocol
Type:
Cisco Discovery Protocol
Operation:
Listen
Administrator contact
Name:
Other details:
OK
Cancel

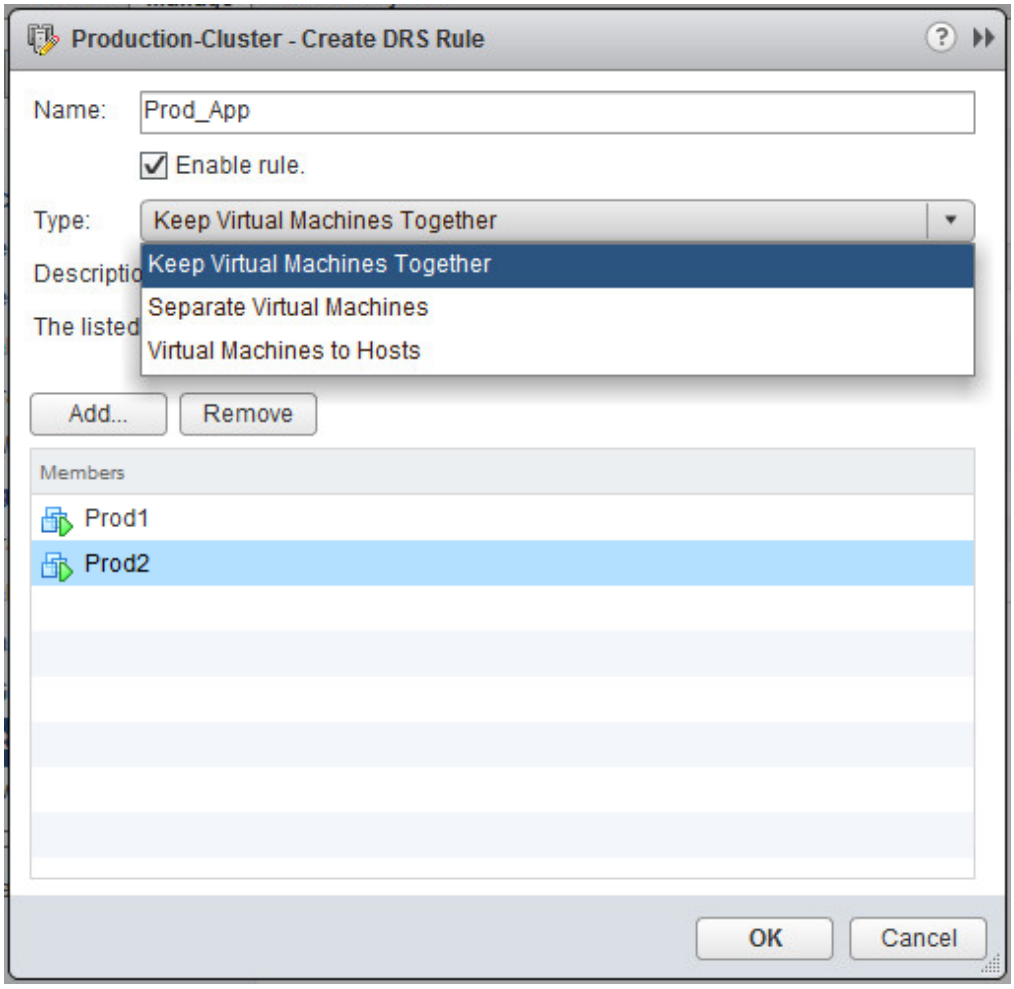

vmk1 - Edit Settings
Port properties
NIC settings
IPv4 settings
Analyze impact
MTU:
9000
OK
Cancel

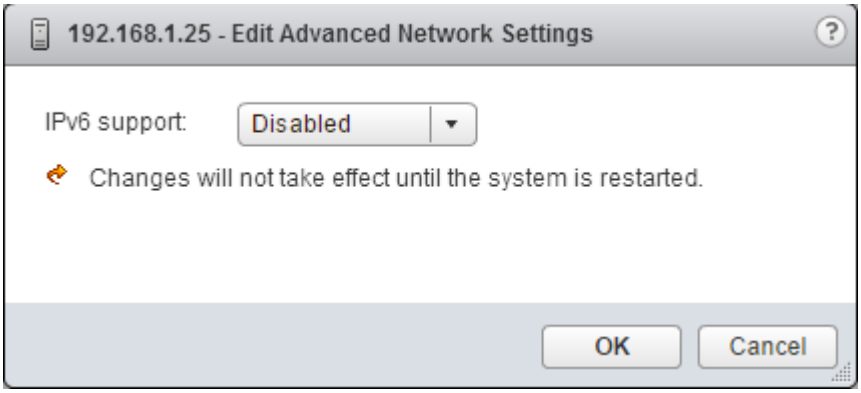

192.168.1.28 - Edit TCP/IP Stack Configuration
Name
DNS configuration
Routing
Advanced
Obtain settings automatically from a VMkernel network adapter
VMkernel network adapter:
Enter settings manually
Preferred DNS server:
172.28.50.200
Alternate DNS server:
172.28.50.201
Search domains:
lab.local
Example: site.com site.org site.net
OK
Cancel

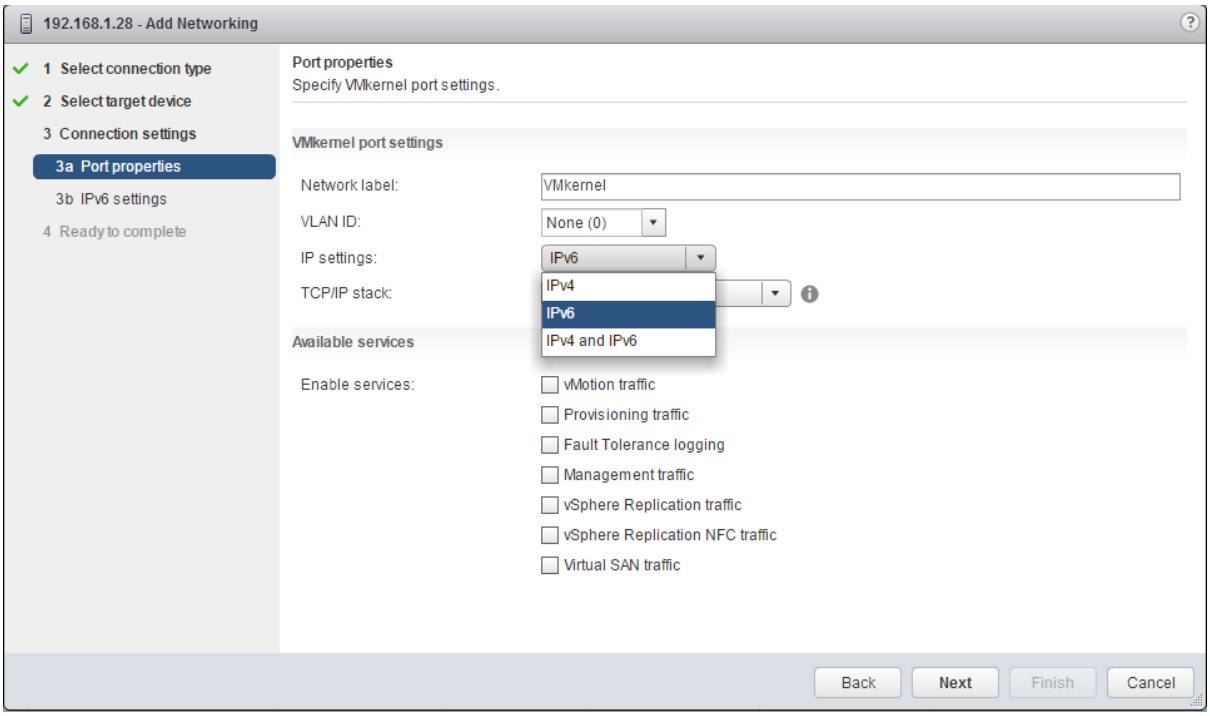
192.168.1.28 - Edit TCP/IP Stack Configuration
Name
DNS configuration
Routing
Advanced
VMkernel gateway:
172 . 28 . 50 . 1
IPv6 VMkernel gateway:
OK
Cancel


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

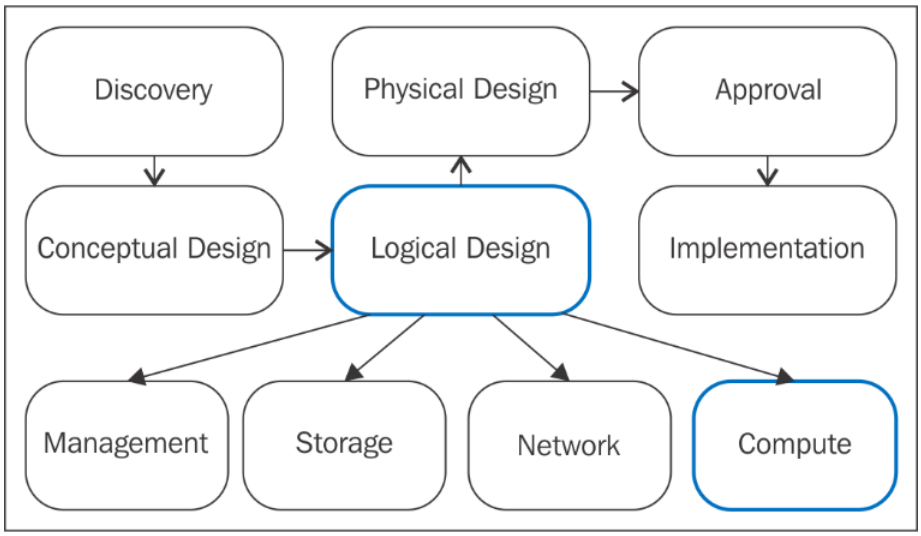

vmk1 - Edit Settings
Port properties
NIC settings
IPv4 settings
Analyze impact
VMkernel port settings
TCP/IP stack:
Default
Available services
Enable services:
vMotion traffic
Provisioning traffic
Fault Tolerance logging
Management traffic
vSphere Replication traffic
vSphere Replication NFC traffic
Virtual SAN traffic
OK
Cancel

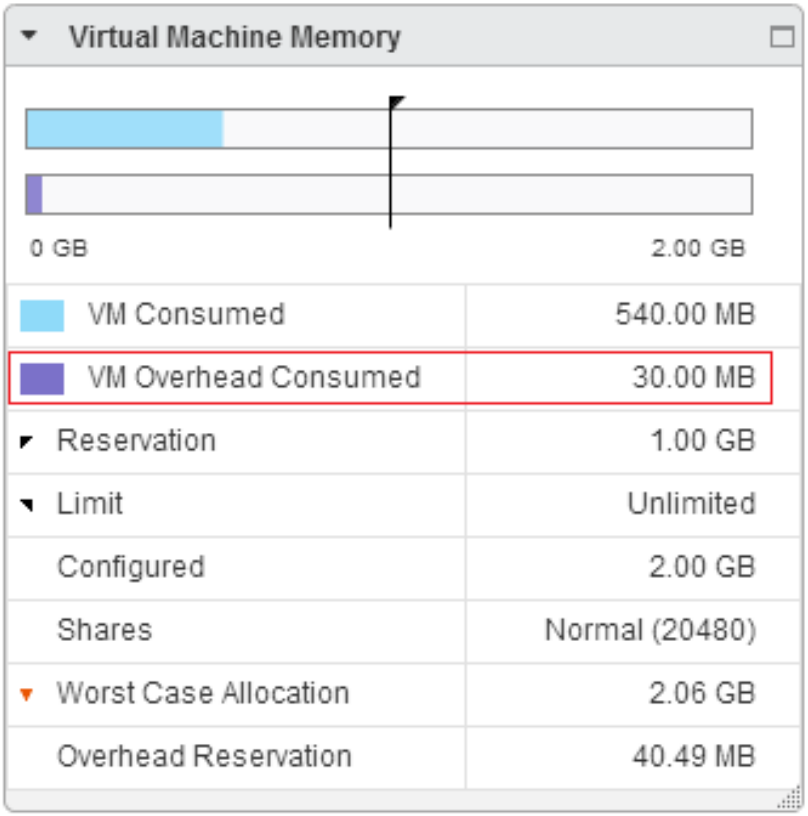

Production-Cluster - Create DRS Rule
Name:
Prod_App
Enable rule.
Type:
Keep Virtual Machines Together
Keep Virtual Machines Together
Separate Virtual Machines
Virtual Machines to Hosts
Add...
Remove
Members
Prod1
Prod2
OK
Cancel

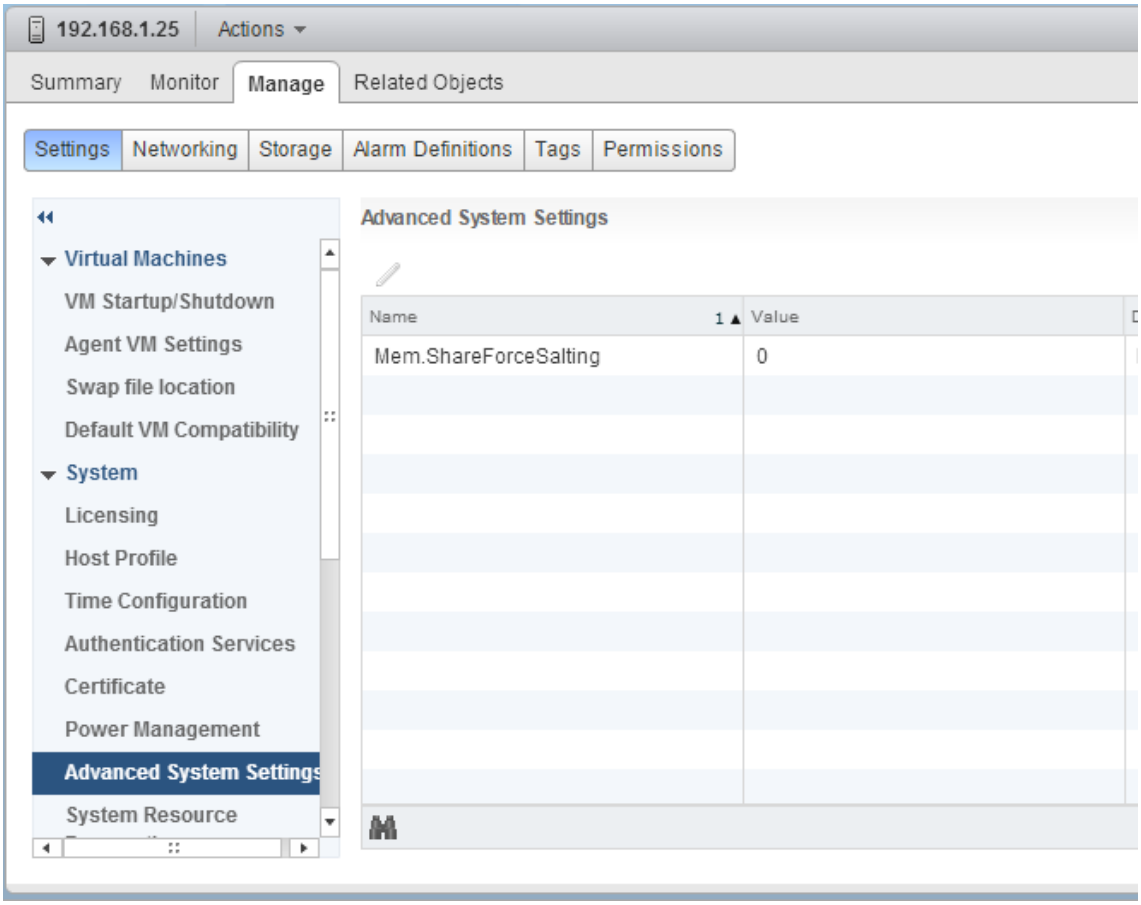

192.168.1.25 - Edit Advanced Network Settings
IPv6 support:
Disabled
Changes will not take effect until the system is restarted.
OK
Cancel

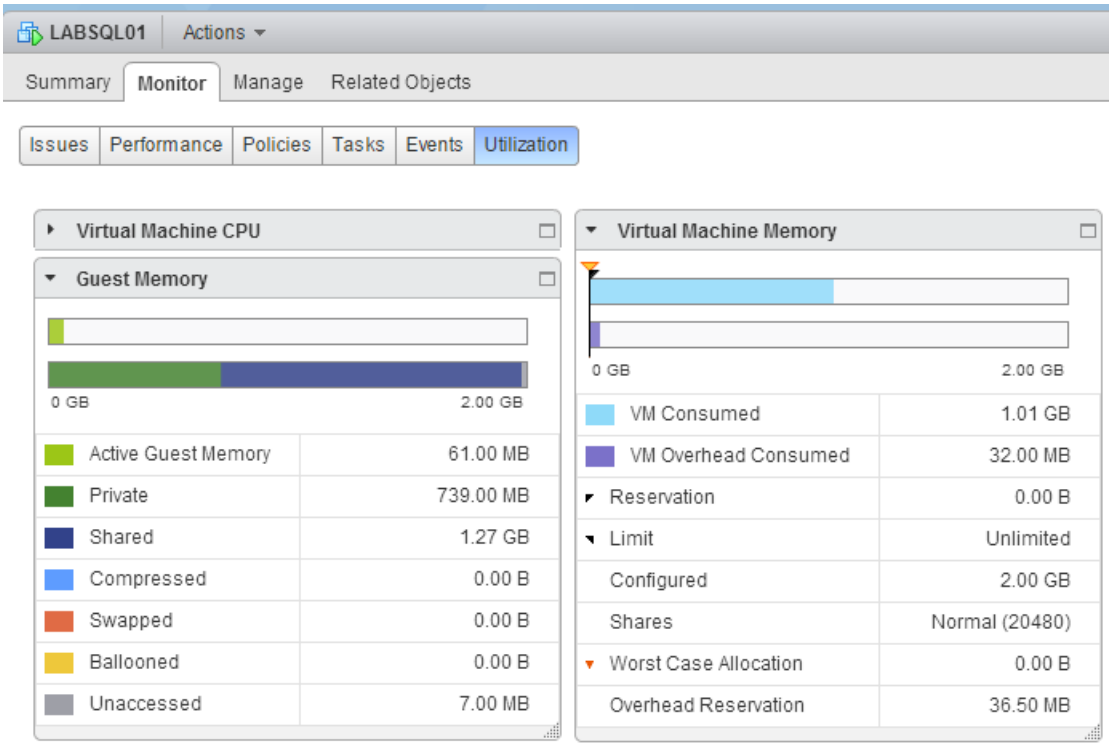

192.168.1.28 - Add Networking
1 Select connection type
2 Select target device
3 Connection settings
3a Port properties
3b IPv6 settings
4 Ready to complete
Port properties
Specify VMkernel port settings.
VMkernel port settings
Network label:
VMkernel
VLAN ID:
None (0)
IP settings:
IPv6
TCP/IP stack:
IPv4
IPv6
IPv4 and IPv6
Available services
Enable services:
vMotion traffic
Provisioning traffic
Fault Tolerance logging
Management traffic
vSphere Replication traffic
vSphere Replication NFC traffic
Virtual SAN traffic
Back
Next
Finish
Cancel

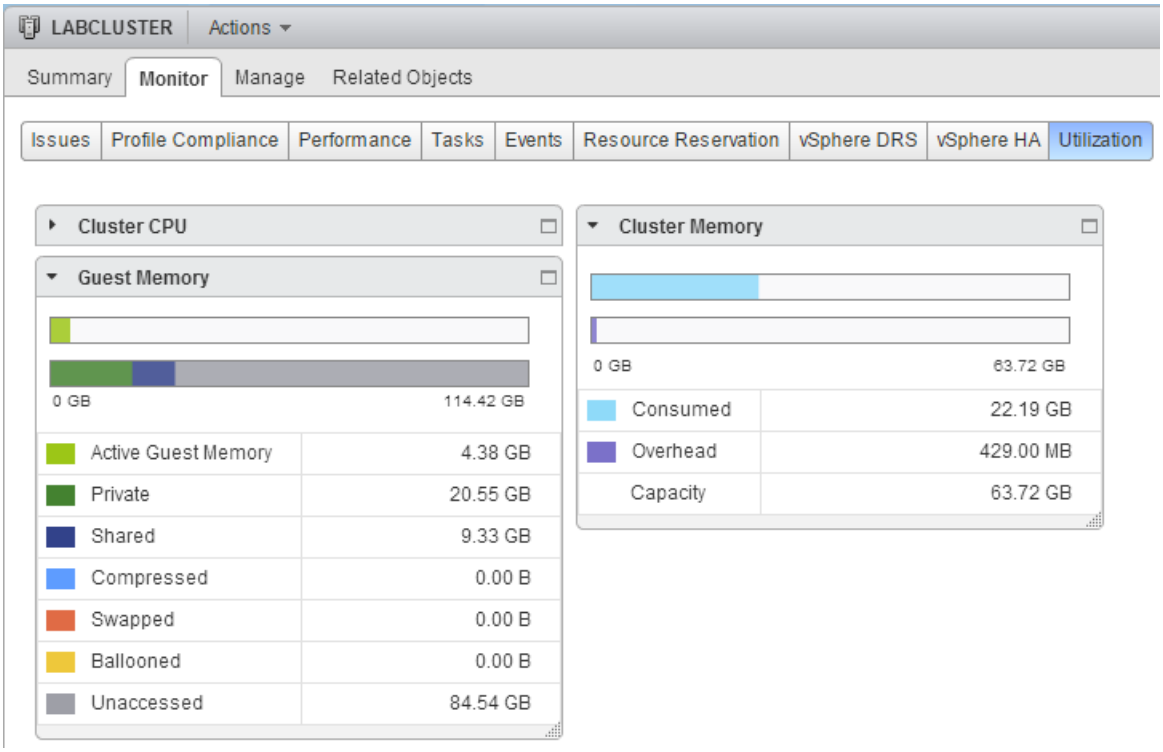
Chapter 7: vSphere Compute Design

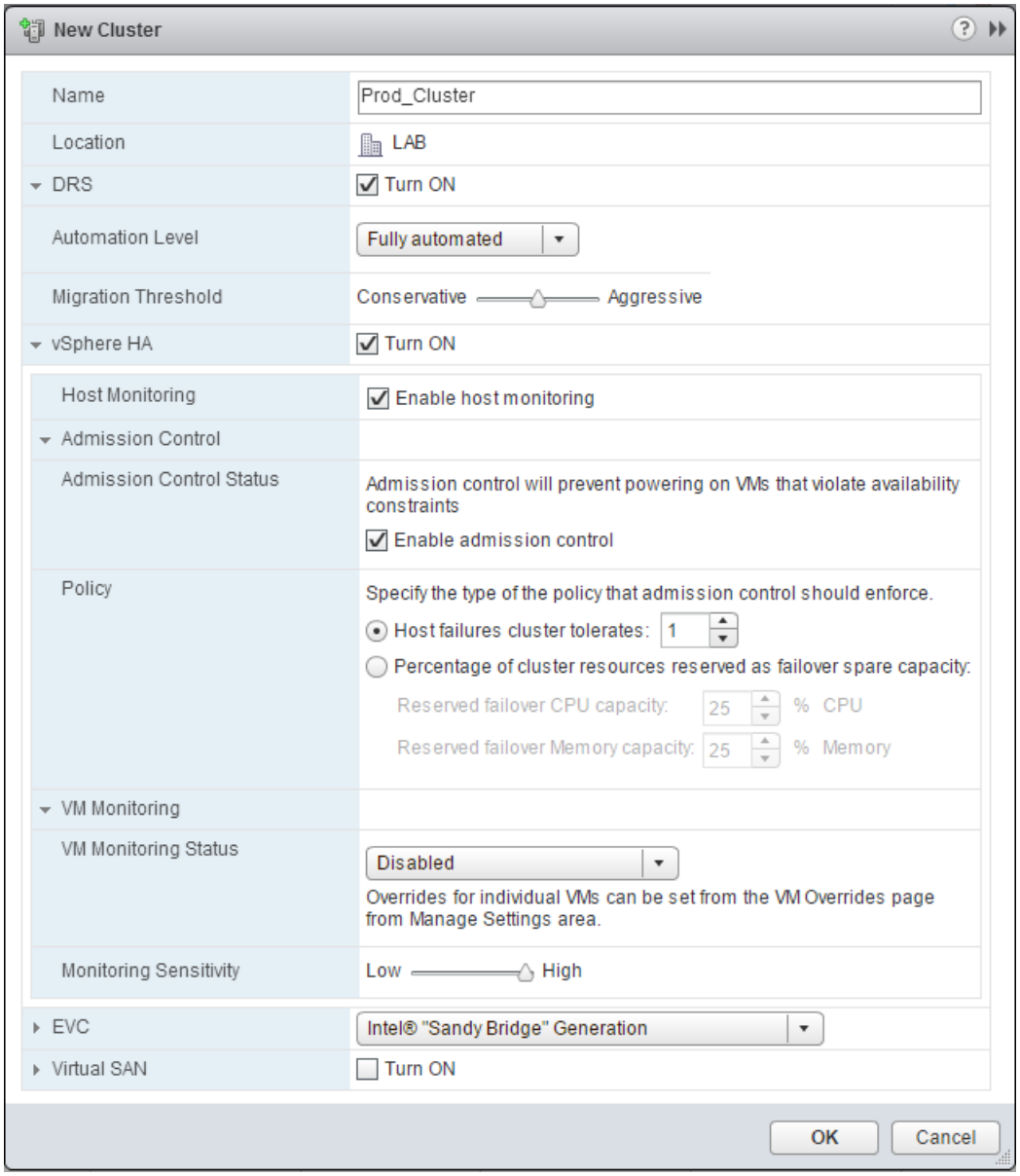


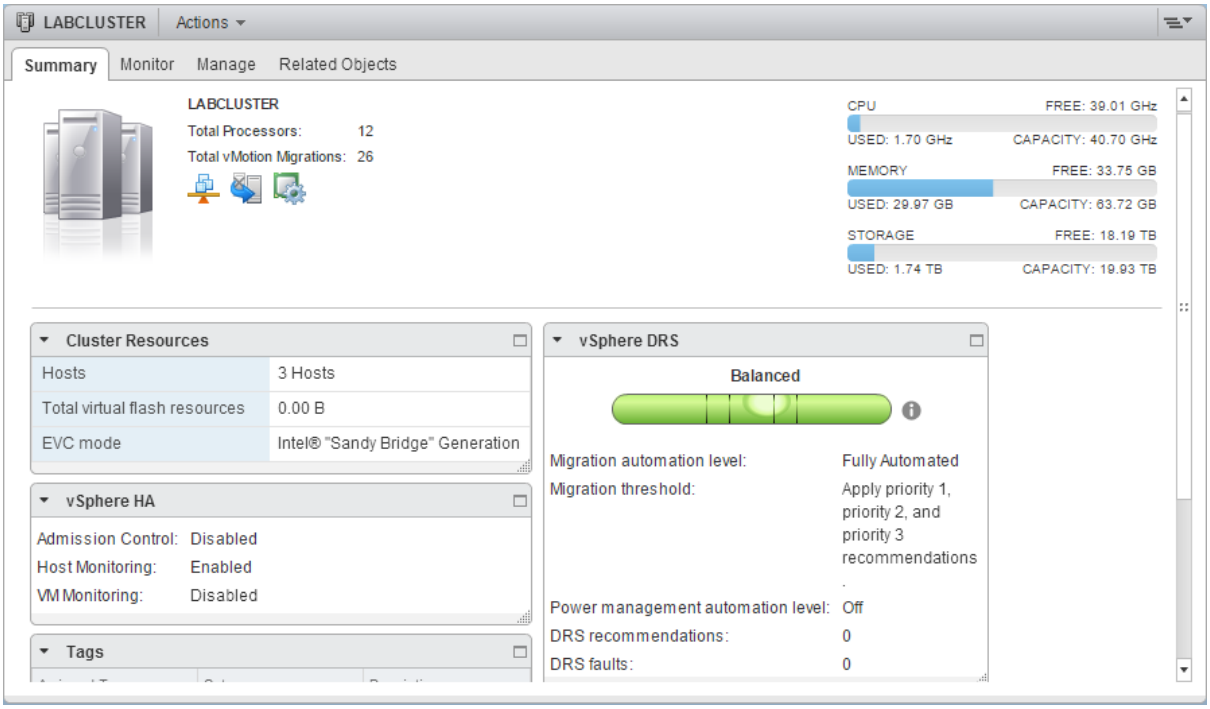

Virtual Machine Memory
0 GB
2.00 GB
VM Consumed
540.00 MB
VM Overhead Consumed
30.00 MB
Reservation
1.00 GB
Limit
Unlimited
Configured
2.00 GB
Shares
Normal (20480)
Worst Case Allocation
2.06 GB
Overhead Reservation
40.49 MB

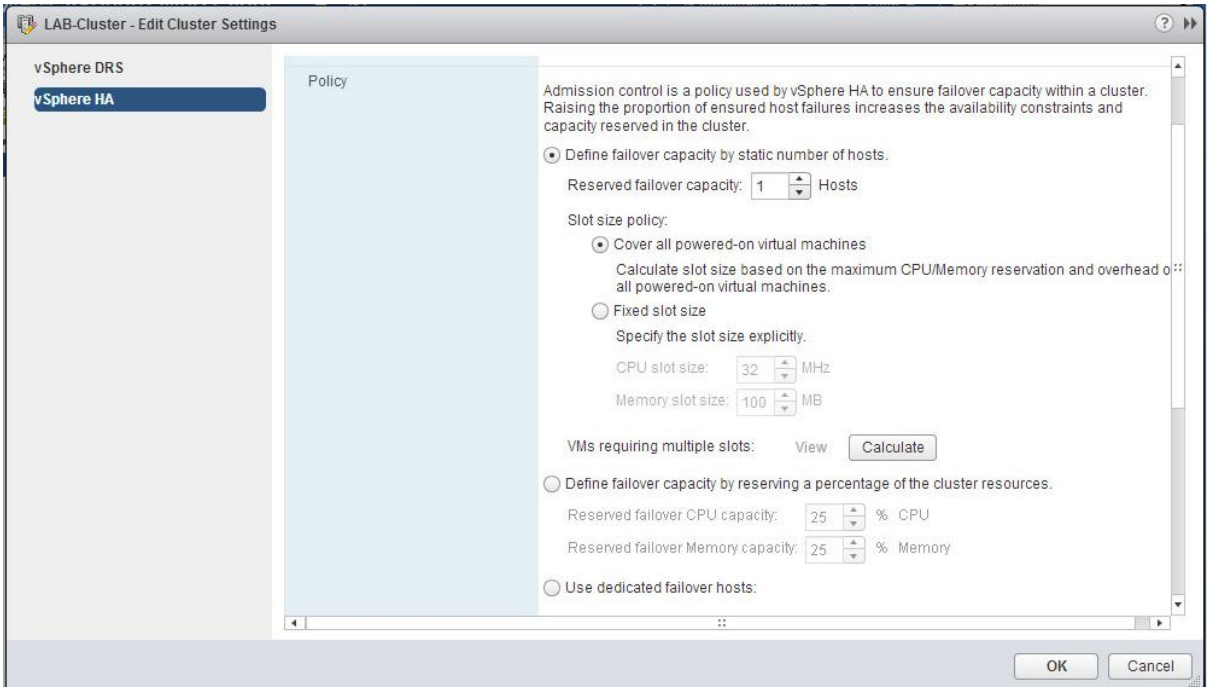

192.168.1.25
Actions
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Virtual Machines
VM Startup/Shutdown
Agent VM Settings
Swap file location
Default VM Compatibility
System
Licensing
Host Profile
Time Configuration
Authentication Services
Certificate
Power Management
Advanced System Settings
System Resource
Advanced System Settings
Name
Value
Mem.ShareForceSalting
0

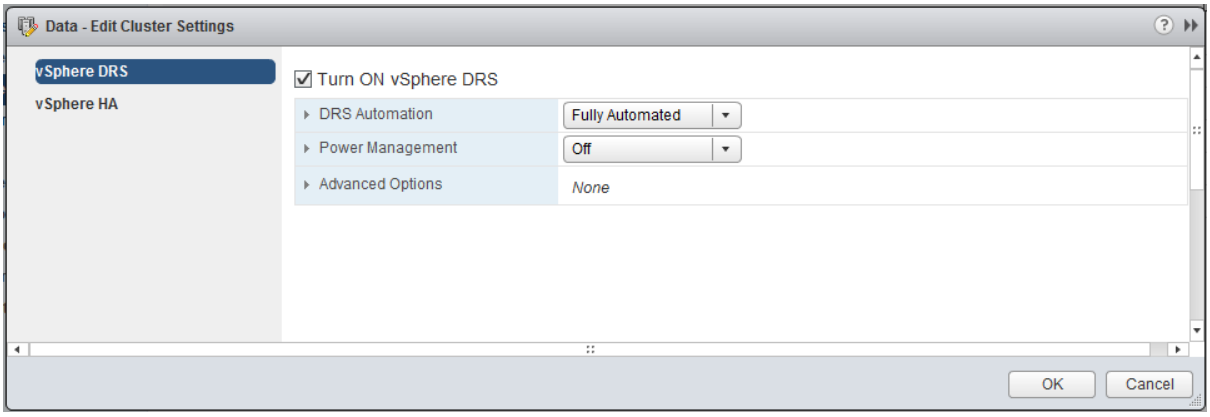

LABSQL01
Actions
Summary
Monitor
Manage
Related Objects
Issues
Performance
Policies
Tasks
Events
Utilization
Virtual Machine CPU
Guest Memory
0 GB
2.00 GB
Active Guest Memory 61.00 MB
Private 739.00 MB
Shared 1.27 GB
Compressed 0.00 B
Swapped 0.00 B
Ballooned 0.00 B
Unaccessed 7.00 MB
Virtual Machine Memory
0 GB
2.00 GB
VM Consumed 1.01 GB
VM Overhead Consumed 32.00 MB
Reservation 0.00 B
Limit Unlimited
Configured 2.00 GB
Shares Normal (20480)
Worst Case Allocation 0.00 B
Overhead Reservation 36.50 MB

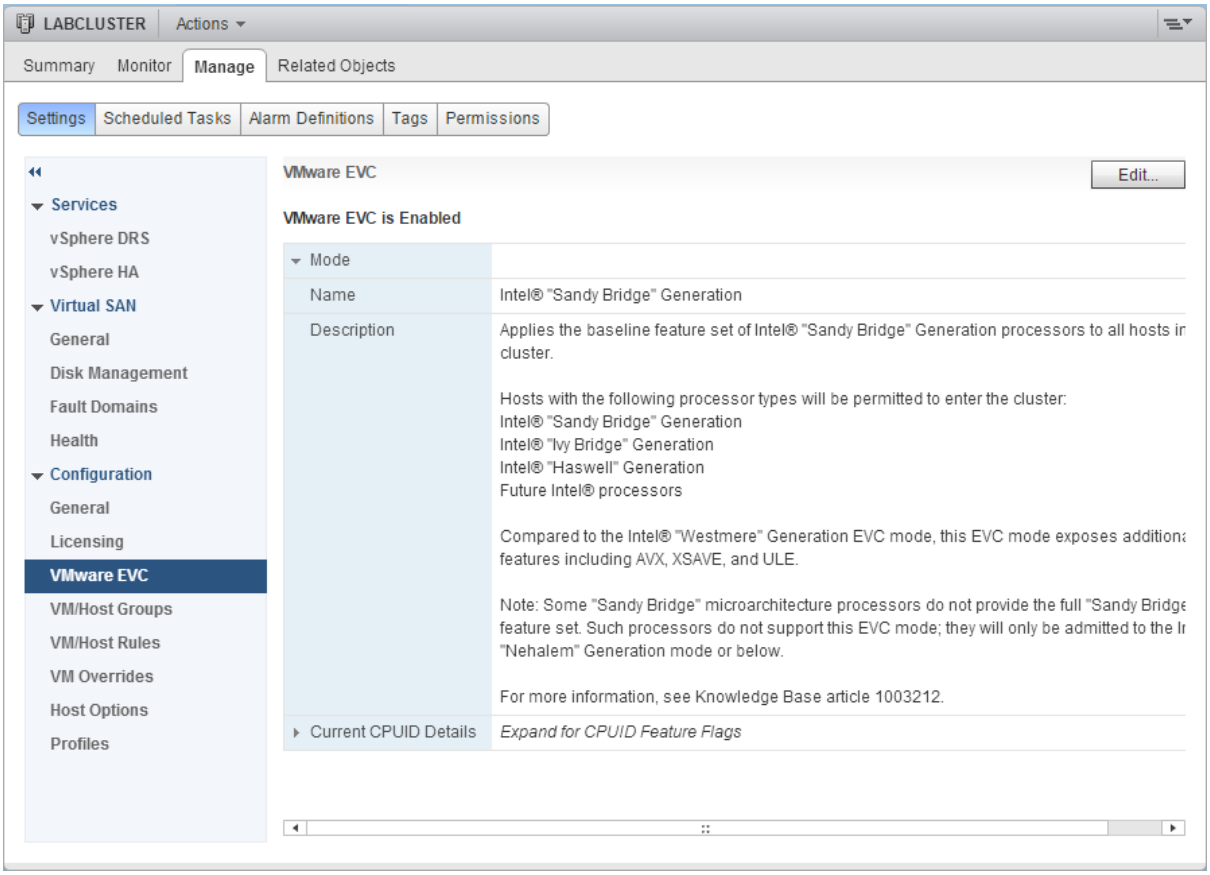

LABCLUSTER
Actions
Summary
Monitor
Manage
Related Objects
Issues
Profile Compliance
Performance
Tasks
Events
Resource Reservation
vSphere DRS
vSphere HA
Utilization
Cluster CPU
Guest Memory
0 GB
114.42 GB
Active Guest Memory 4.38 GB
Private 20.55 GB
Shared 9.33 GB
Compressed 0.00 B
Swapped 0.00 B
Ballooned 0.00 B
Unaccessed 84.54 GB
Cluster Memory
0 GB
63.72 GB
Consumed 22.19 GB
Overhead 429.00 MB
Capacity 63.72 GB

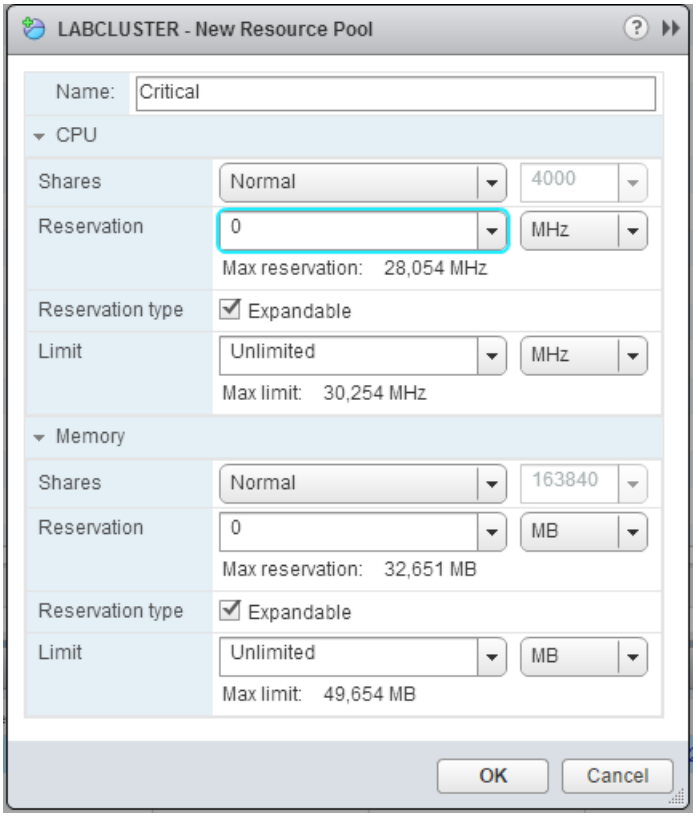

New Cluster
Name
Prod_Cluster
Location
LAB
DRS
Turn ON
Automation Level
Fully automated
Migration Threshold
Conservative
Aggressive
vSphere HA
Turn ON
Host Monitoring
Enable host monitoring
Admission Control
Admission Control Status
Admission control will prevent powering on VMs that violate availability constraints
Enable admission control
Policy
Specify the type of the policy that admission control should enforce.
Host failures cluster tolerates:
1
Percentage of cluster resources reserved as failover spare capacity:
Reserved failover CPU capacity:
25
% CPU
Reserved failover Memory capacity:
25
% Memory
VM Monitoring
VM Monitoring Status
Disabled
Overrides for individual VMs can be set from the VM Overrides page from Manage Settings area.
Monitoring Sensitivity
Low
High
EVC
Intel® "Sandy Bridge" Generation
Virtual SAN
Turn ON
OK
Cancel

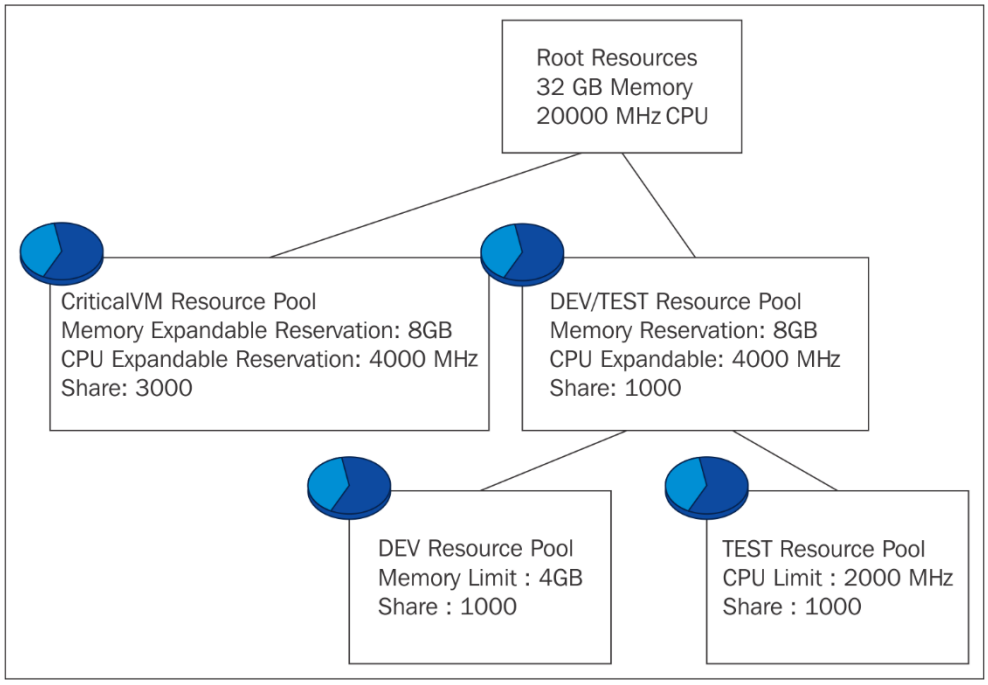

LABCLUSTER
Actions
Summary
Monitor
Manage
Related Objects
LABCLUSTER
Total Processors: 12
Total vMotion Migrations: 26
CPU
FREE: 39.01 GHz
USED: 1.70 GHz
CAPACITY: 40.70 GHz
MEMORY
FREE: 33.75 GB
USED: 29.97 GB
CAPACITY: 63.72 GB
STORAGE
FREE: 18.19 TB
USED: 1.74 TB
CAPACITY: 19.93 TB
Cluster Resources
Hosts 3 Hosts
Total virtual flash resources 0.00 B
EVC mode Intel® "Sandy Bridge" Generation
vSphere HA
Admission Control: Disabled
Host Monitoring: Enabled
VM Monitoring: Disabled
Tags
vSphere DRS
Balanced
Migration automation level: Fully Automated
Migration threshold: Apply priority 1, priority 2, and priority 3 recommendations
Power management automation level: Off
DRS recommendations: 0
DRS faults: 0

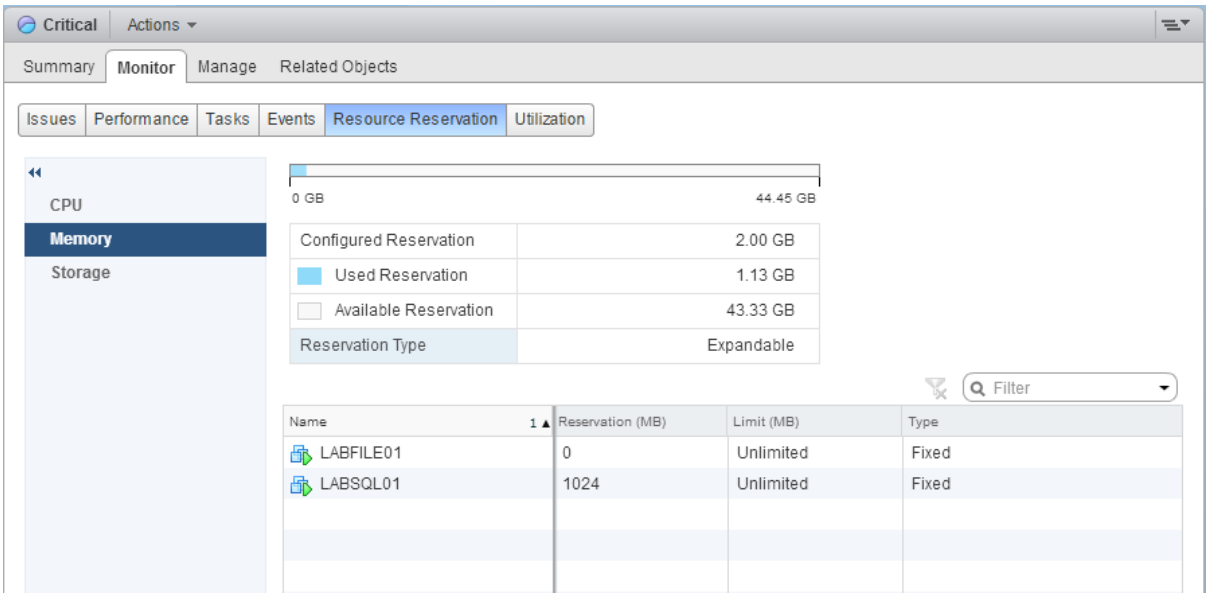

LAB-Cluster - Edit Cluster Settings
vSphere DRS
vSphere HA
Policy
Admission control is a policy used by vSphere HA to ensure failover capacity within a cluster. Raising the proportion of ensured host failures increases the availability constraints and capacity reserved in the cluster.
Define failover capacity by static number of hosts.
Reserved failover capacity: 1 Hosts
Slot size policy:
Cover all powered-on virtual machines
Calculate slot size based on the maximum CPU/Memory reservation and overhead o all powered-on virtual machines.
Fixed slot size
Specify the slot size explicitly.
CPU slot size: 32 MHz
Memory slot size: 100 MB
VMs requiring multiple slots: View Calculate
Define failover capacity by reserving a percentage of the cluster resources.
Reserved failover CPU capacity: 25 % CPU
Reserved failover Memory capacity: 25 % Memory
Use dedicated failover hosts:
OK
Cancel

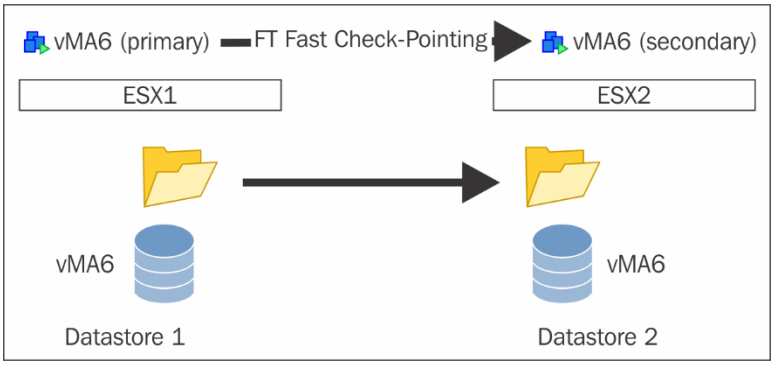

Data - Edit Cluster Settings
vSphere DRS
vSphere HA
Turn ON vSphere DRS
DRS Automation
Fully Automated
Power Management
Off
Advanced Options
None
OK
Cancel

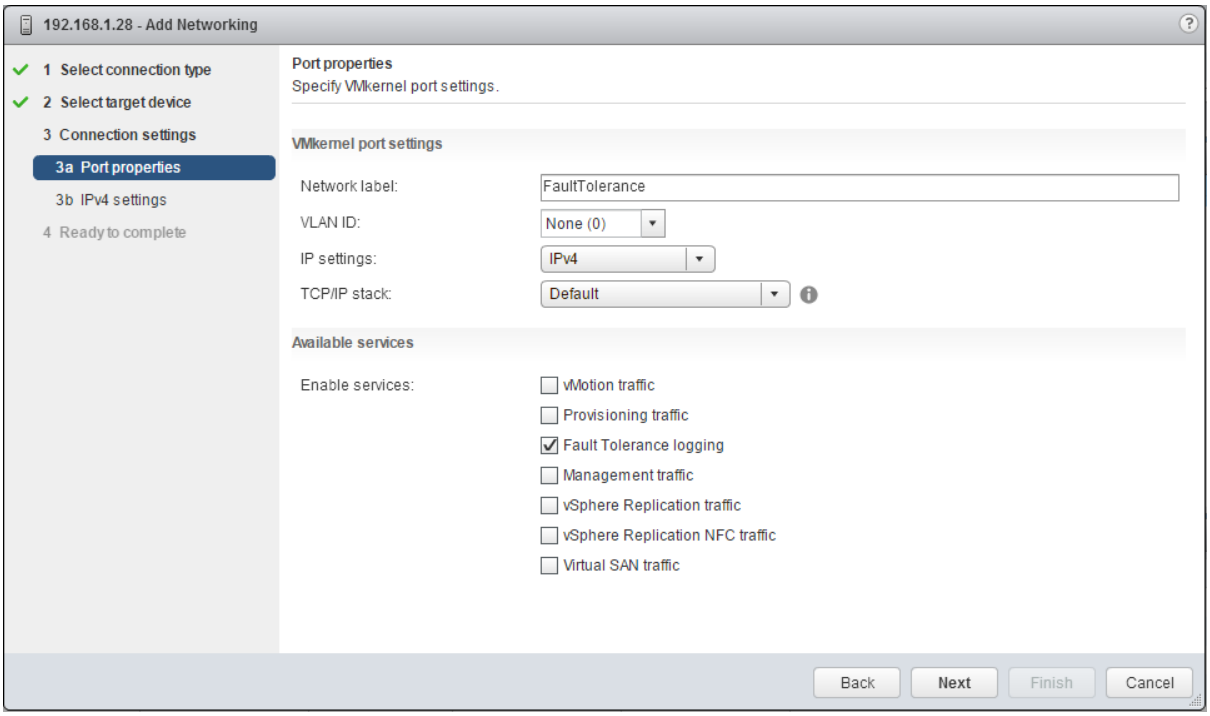

LABCLUSTER
Actions
Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Alarm Definitions
Tags
Permissions
Services
vSphere DRS
vSphere HA
Virtual SAN
General
Disk Management
Fault Domains
Health
Configuration
General
Licensing
VMware EVC
VM/Host Groups
VM/Host Rules
VM Overrides
Host Options
Profiles
VMware EVC
Edit...
VMware EVC is Enabled
Mode
Name
Intel® "Sandy Bridge" Generation
Description
Applies the baseline feature set of Intel® "Sandy Bridge" Generation processors to all hosts ir
cluster.
Hosts with the following processor types will be permitted to enter the cluster:
Intel® "Sandy Bridge" Generation
Intel® "Ivy Bridge" Generation
Intel® "Haswell" Generation
Future Intel® processors
Compared to the Intel® "Westmere" Generation EVC mode, this EVC mode exposes additiona
features including AVX, XSAVE, and ULE.
Note: Some "Sandy Bridge" microarchitecture processors do not provide the full "Sandy Bridge
feature set. Such processors do not support this EVC mode; they will only be admitted to the Ir
"Nehalem" Generation mode or below.
For more information, see Knowledge Base article 1003212.
Current CPUID Details
Expand for CPUID Feature Flags

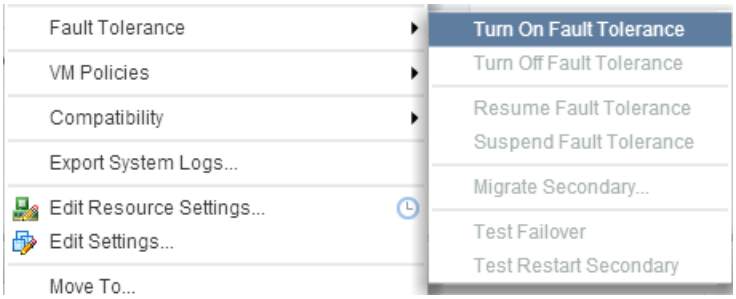

LABCLUSTER - New Resource Pool
Name:
Critical
CPU
Shares
Normal
4000
Reservation
0
MHz
Max reservation: 28,054 MHz
Reservation type
Expandable
Limit
Unlimited
MHz
Max limit: 30,254 MHz
Memory
Shares
Normal
163840
Reservation
0
MB
Max reservation: 32,651 MB
Reservation type
Expandable
Limit
Unlimited
MB
Max limit: 49,654 MB
OK
Cancel

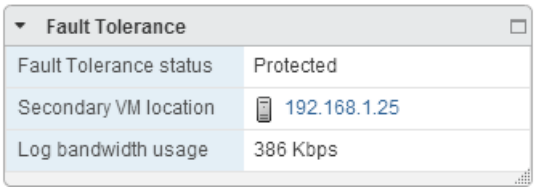

Root Resources
32 GB Memory
20000 MHz CPU
CriticalVM Resource Pool
Memory Expandable Reservation: 8GB
CPU Expandable Reservation: 4000 MHz
Share: 3000
DEV/TEST Resource Pool
Memory Reservation: 8GB
CPU Expandable: 4000 MHz
Share: 1000
DEV Resource Pool
Memory Limit : 4GB
Share : 1000
TEST Resource Pool
CPU Limit : 2000 MHz
Share : 1000

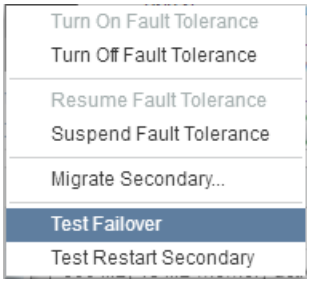

Critical
Actions
Summary
Monitor
Manage
Related Objects
Issues
Performance
Tasks
Events
Resource Reservation
Utilization
CPU
Memory
Storage
0 GB
44.45 GB
Configured Reservation
2.00 GB
Used Reservation
1.13 GB
Available Reservation
43.33 GB
Reservation Type
Expandable
Filter
Name
Reservation (MB)
Limit (MB)
Type
LABFILE01
0
Unlimited
Fixed
LABSQL01
1024
Unlimited
Fixed

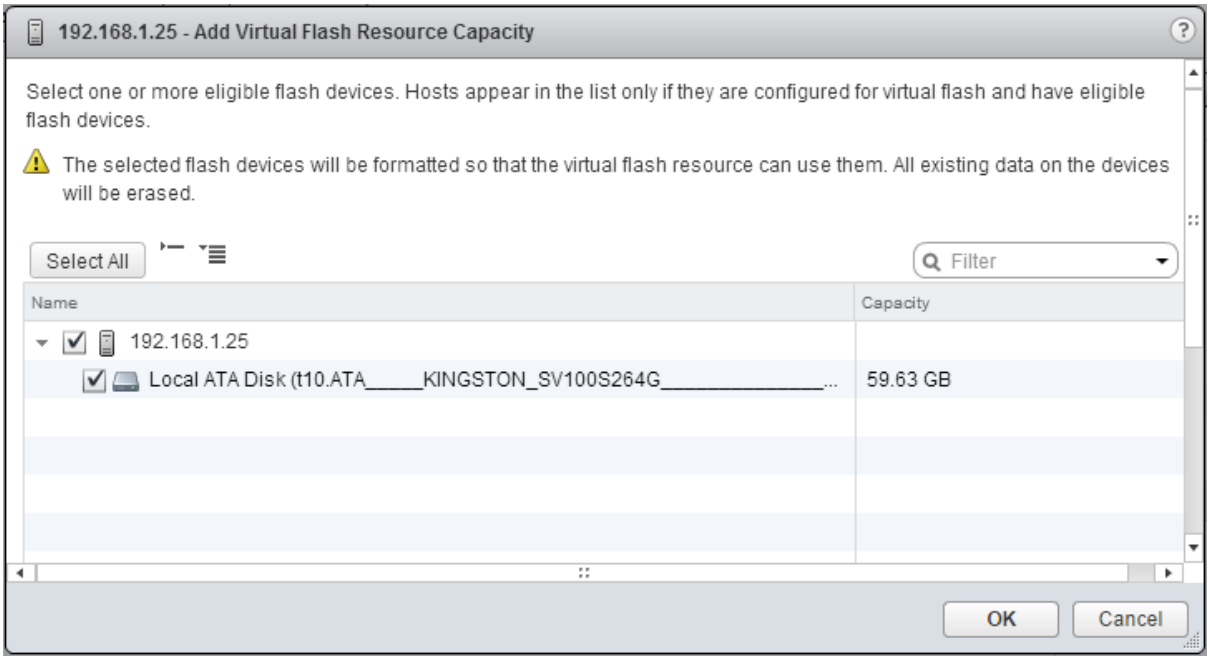

vMA6 (primary)
FT Fast Check-Pointing
vMA6 (secondary)
ESX1
ESX2
vMA6
vMA6
Datastore 1
Datastore 2

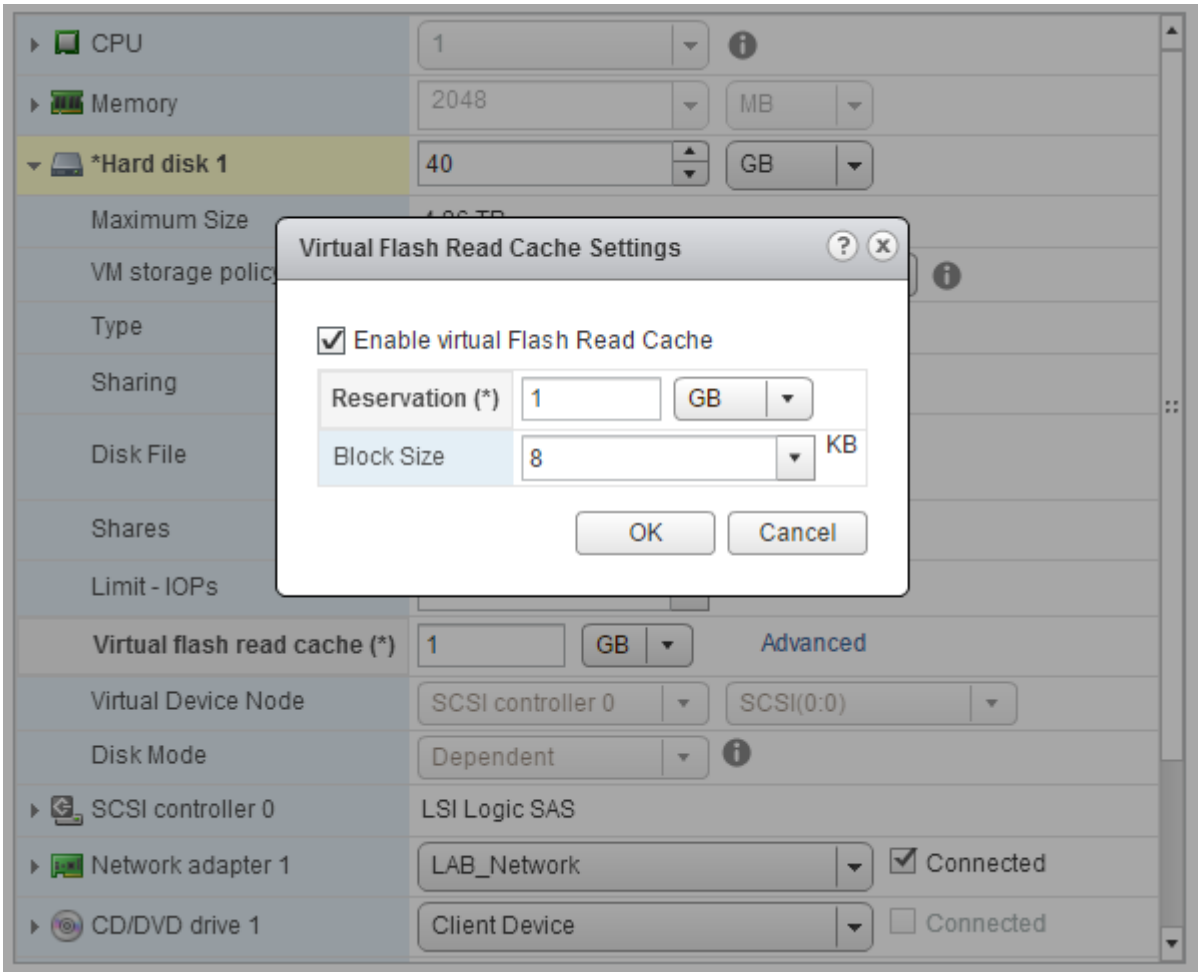

192.168.1.28 - Add Networking
1 Select connection type
2 Select target device
3 Connection settings
3a Port properties
3b IPv4 settings
4 Ready to complete
Port properties
Specify VMkernel port settings.
VMkernel port settings
Network label:
FaultTolerance
VLAN ID:
None (0)
IP settings:
IPv4
TCP/IP stack: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


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

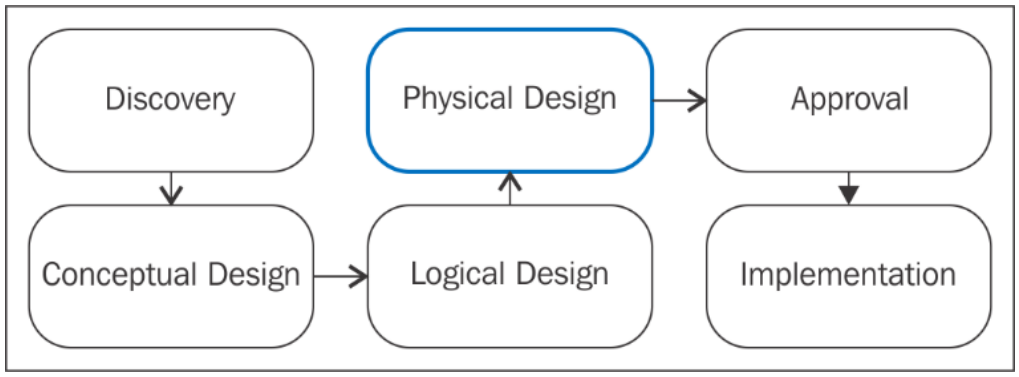

Fault Tolerance
Fault Tolerance status
Protected
Secondary VM location
192.168.1.25
Log bandwidth usage
386 Kbps

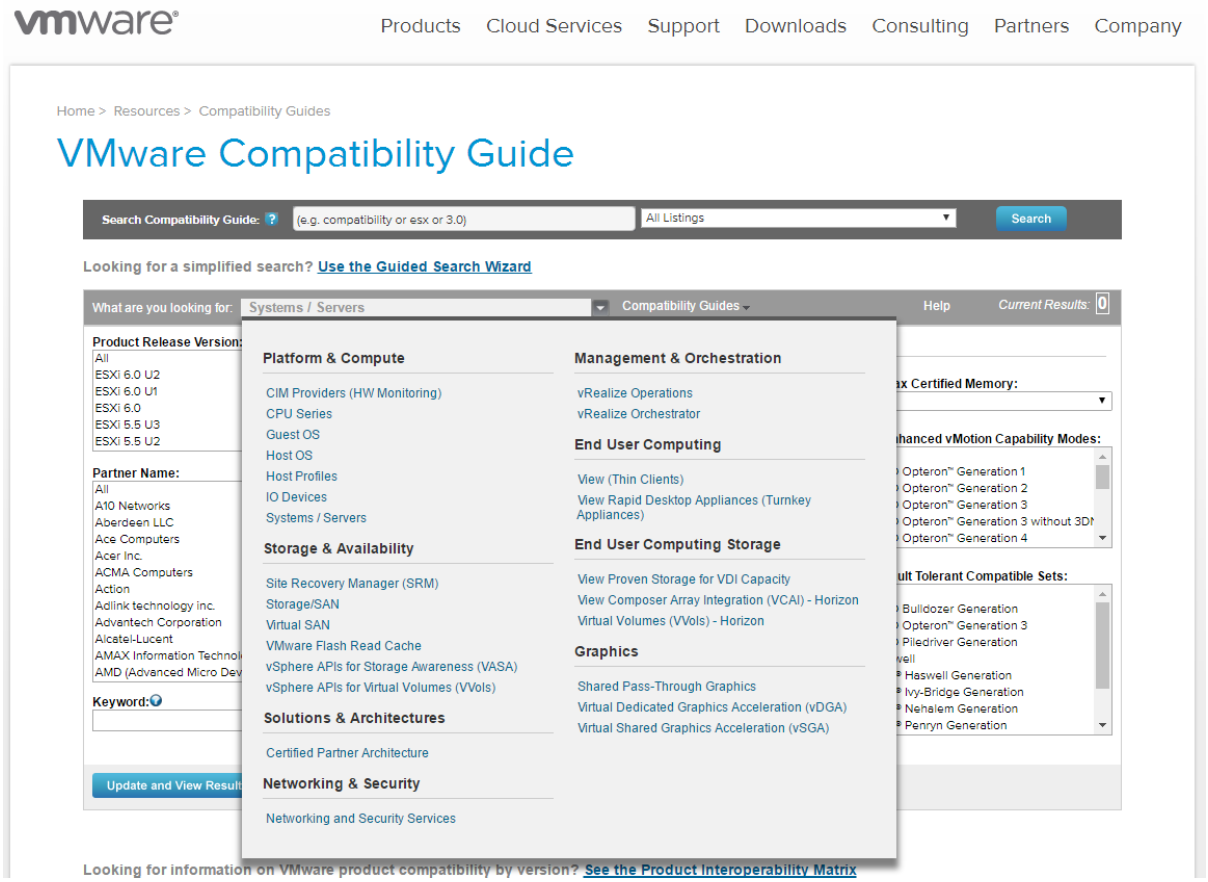

Turn On Fault Tolerance
Turn Off Fault Tolerance
Resume Fault Tolerance
Suspend Fault Tolerance
Migrate Secondary...
Test Failover
Test Restart Secondary

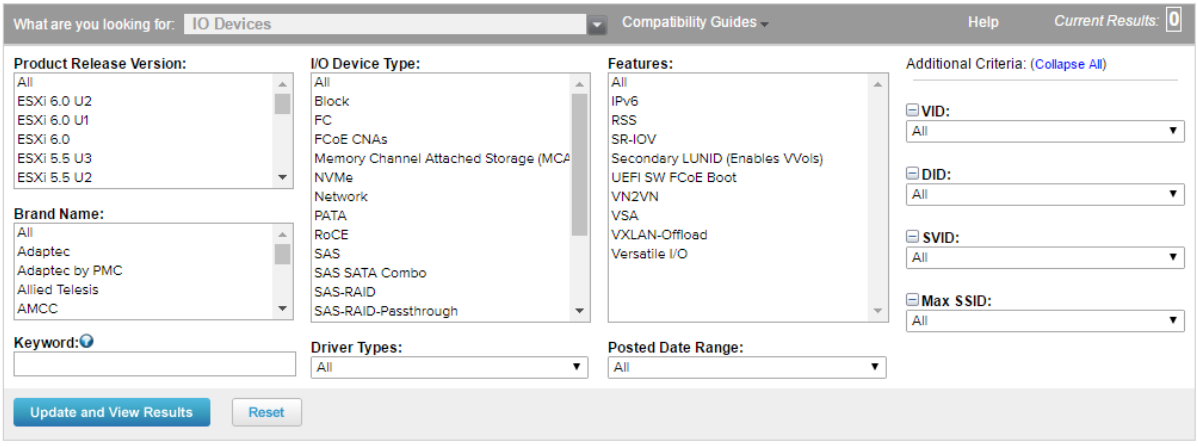

192.168.1.25 - Add Virtual Flash Resource Capacity
Select one or more eligible flash devices. Hosts appear in the list only if they are configured for virtual flash and have eligible flash devices.
The selected flash devices will be formatted so that the virtual flash resource can use them. All existing data on the devices will be erased.
Select All
Filter
Name
Capacity
192.168.1.25
Local ATA Disk (t10.ATA_____KINGSTON_SV100S264G_____...
59.63 GB
OK
Cancel

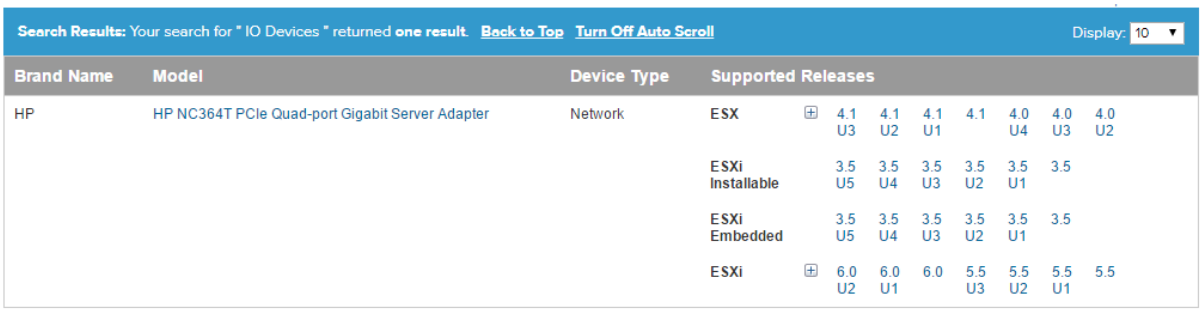

CPU
1
Memory
2048
MB
*Hard disk 1
40
GB
Maximum Size
VM storage policy
Type
Sharing
Disk File
Shares
Limit - IOPs
Virtual flash read cache (*)
1
GB
Advanced
Virtual Device Node
SCSI controller 0
SCSI(0:0)
Disk Mode
Dependent
SCSI controller 0
LSI Logic SAS
Network adapter 1
LAB_Network
Connected
CD/DVD drive 1
Client Device
Connected
Virtual Flash Read Cache Settings
Enable virtual Flash Read Cache
Reservation (*)
1
GB
Block Size
8
KB
OK
Cancel

Chapter 8: vSphere Physical Design



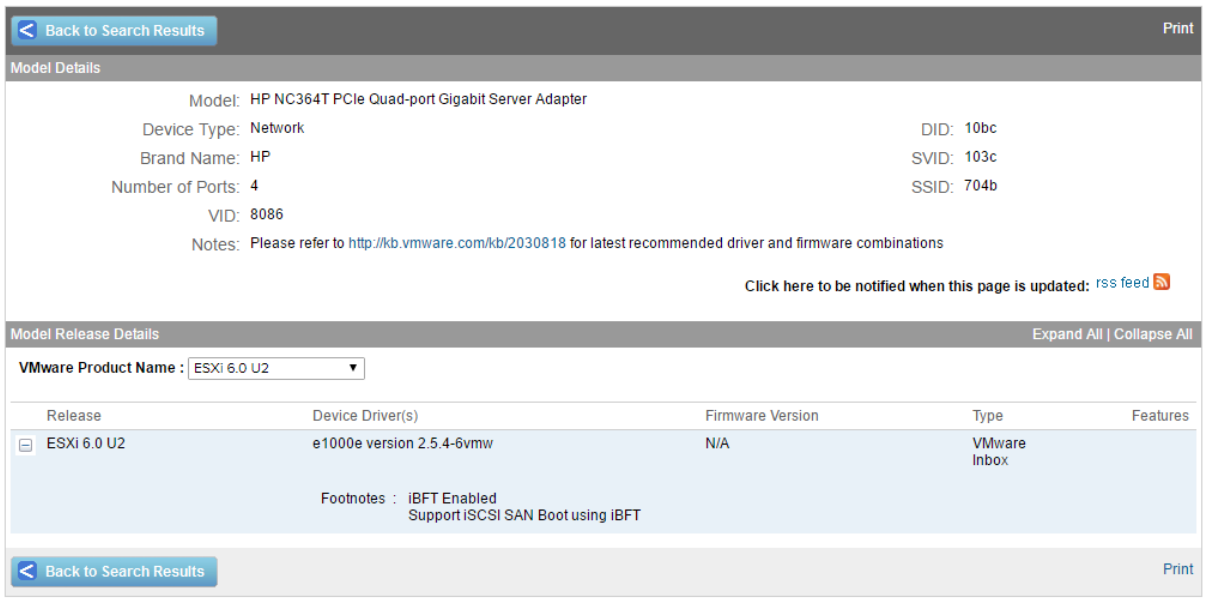

vmware
Products
Cloud Services
Support
Downloads
Consulting
Partners
Company
Home > Resources > Compatibility Guides
VMware Compatibility Guide
Search Compatibility Guide:
(e.g. compatibility or esx or 3.0)
All Listings
Search
Looking for a simplified search? Use the Guided Search Wizard
What are you looking for:
Systems / Servers
Compatibility Guides
Help
Current Results:
Product Release Version:
All
ESXi 6.0 U2
ESXi 6.0 U1
ESXi 6.0
ESXi 5.5 U3
ESXi 5.5 U2
Partner Name:
All
A10 Networks
Aberdeen LLC
Ace Computers
Acer Inc.
ACMA Computers
Action
Adlink technology inc.
Advantech Corporation
Alcatel-Lucent
Keyword:
Update and View Result
Platform & Compute
CIM Providers (HW Monitoring)
CPU Series
Guest OS
Host OS
Host Profiles
IO Devices
Systems / Servers
Storage & Availability
Site Recovery Manager (SRM)
Storage/SAN
Virtual SAN
VMware Flash Read Cache
vSphere APIs for Storage Awareness (VASA)
vSphere APIs for Virtual Volumes (VVols)
Solutions & Architectures
Certified Partner Architecture
Networking & Security
Networking and Security Services
Management & Orchestration
vRealize Operations
vRealize Orchestrator
End User Computing
View (Thin Clients)
View Rapid Desktop Appliances (Turnkey Appliances)
End User Computing Storage
View Proven Storage for VDI Capacity
View Composer Array Integration (VCAI) - Horizon
Virtual Volumes (VVols) - Horizon
Graphics
Shared Pass-Through Graphics
Virtual Dedicated Graphics Acceleration (vDGA)
Virtual Shared Graphics Acceleration (vSGA)
Looking for information on VMware product compatibility by version? See the Product Interoperability Matrix


What are you looking for:
IO Devices
Compatibility Guides
Help
Current Results:
Product Release Version:
All
ESXi 6.0 U2
ESXi 6.0 U1
ESXi 6.0
ESXi 5.5 U3
ESXi 5.5 U2
Brand Name:
All
Adaptec
Adaptec by PMC
Allied Telesis
AMCC
Keyword:
I/O Device Type:
All
Block
FC
FCoE CNAs
Memory Channel Attached Storage (MCA
NVMe
Network
PATA
RoCE
SAS
SAS SATA Combo
SAS-RAID
SAS-RAID-Passthrough
Driver Types:
All
Features:
All
IPv6
RSS
SR-IOV
Secondary LUNID (Enables VVols)
UEFI SW FCoE Boot
VN2VN
VSA
VXLAN-Offload
Versatile I/O
Posted Date Range:
All
Additional Criteria: (Collapse All)
VID:
All
DID:
All
SVID:
All
Max SSID:
All
Update and View Results
Reset



Search Results: Your search for " IO Devices " returned **one result**. Back to Top Turn Off Auto Scroll Display: 10

Brand Name	Model	Device Type	Supported Releases							
HP	HP NC364T PCIe Quad-port Gigabit Server Adapter	Network	ESX	4.1 U3	4.1 U2	4.1 U1	4.1	4.0 U4	4.0 U3	4.0 U2
			ESXi Installable	3.5 U5	3.5 U4	3.5 U3	3.5 U2	3.5 U1	3.5	
			ESXi Embedded	3.5 U5	3.5 U4	3.5 U3	3.5 U2	3.5 U1	3.5	
			ESXi	6.0 U2	6.0 U1	6.0	5.5 U3	5.5 U2	5.5 U1	5.5



Back to Search Results Print

Model Details

Model: HP NC364T PCIe Quad-port Gigabit Server Adapter
Device Type: Network
Brand Name: HP
Number of Ports: 4
VID: 8086
DID: 10bc
SVID: 103c
SSID: 704b
Notes: Please refer to http://kb.vmware.com/kb/2030818 for latest recommended driver and firmware combinations

Click here to be notified when this page is updated: rss feed

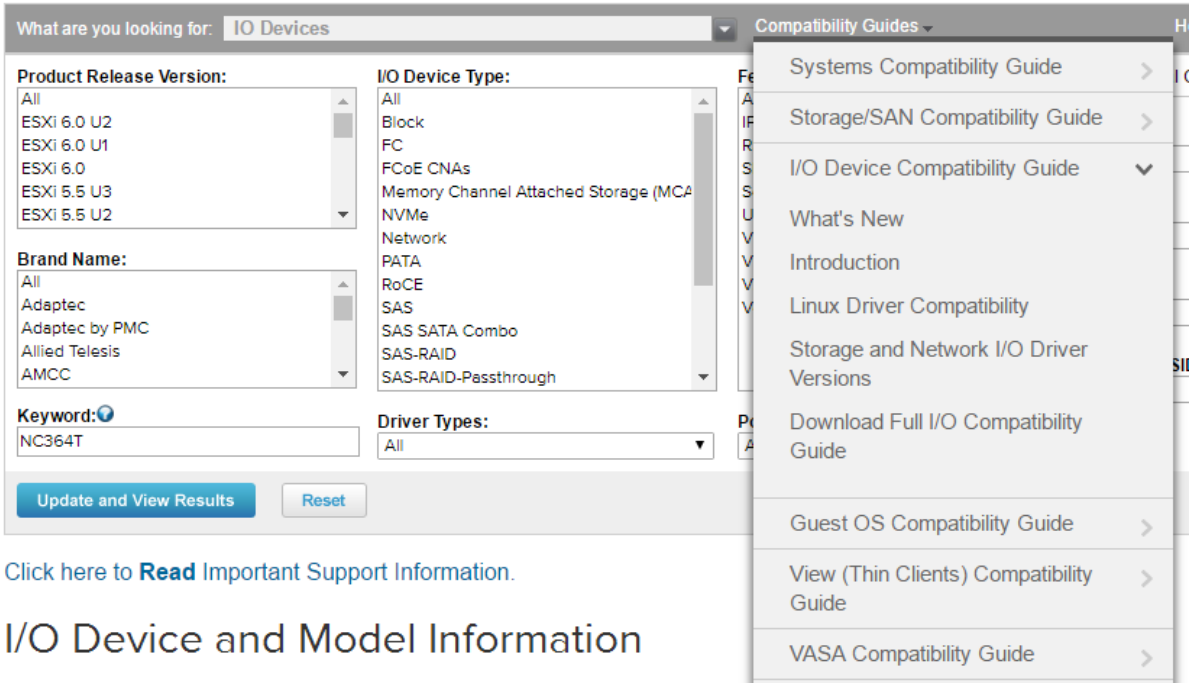
Model Release Details Expand All | Collapse All

VMware Product Name : ESXi 6.0 U2

Release	Device Driver(s)	Firmware Version	Type	Features
ESXi 6.0 U2	e1000e version 2.5.4-6vmw	N/A	VMware Inbox	

Footnotes : iBFT Enabled
Support iSCSI SAN Boot using iBFT

Back to Search Results Print



Click here to **Read** Important Support Information.

I/O Device and Model Information

EMC	VNX5100	FC	VMW_SATP_ALUA_CX / VMW_PSP_FIXED *13, 34, 74 VMW_SATP_ALUA_CX *13, 34, 74, 80, 182, 24, 148, 158, 196, 76, 168, 187, 260, 171, 201, 202, 270, 243, 172, 271, 272, 273, 274, 275	DGC
EMC	VNX5200	FC	VMW_SATP_ALUA_CX *13, 34, 74, 80, 182, 24, 148, 158, 196, 76, 168, 187, 260, 171, 201, 202, 270, 243, 172, 271, 272, 273, 274, 275	RAID5
EMC	VNX5300	FC	VMW_SATP_ALUA_CX / VMW_PSP_FIXED *13, 34, 74 VMW_SATP_ALUA_CX *13, 34, 74, 80, 182, 24, 148, 158, 196, 76, 168, 187, 260, 171, 201, 202, 270, 243, 172, 271, 272, 273, 274, 275	DGC
EMC	VNX5400	FC	VMW_SATP_ALUA_CX *13, 34, 74, 80, 182, 24, 148, 158, 196, 76, 168, 187, 260, 171, 201, 202, 270, 243, 172, 271, 272, 273, 274, 275	RAID5
EMC	VNX5500	FC	VMW_SATP_ALUA_CX *13, 34, 74, 80, 182, 24, 148, 158, 196, 76, 168, 187, 260, 171, 201, 202, 270, 243, 172, 271, 272, 273, 274, 275 VMW_SATP_ALUA_CX / VMW_PSP_FIXED *13, 34, 74, 24	DGC

Interoperability | Solution/Database Interoperability | Upgrade Path

1. Select a Solution

If you do not know the *solution's* version leave it blank.

VMware ESX/ESXi | ×6.0

2. Add Platform/Solution

Add *platforms/solutions* to see if they are compatible with the selected *solution*.

VMware Site Recovery Manager | All versions

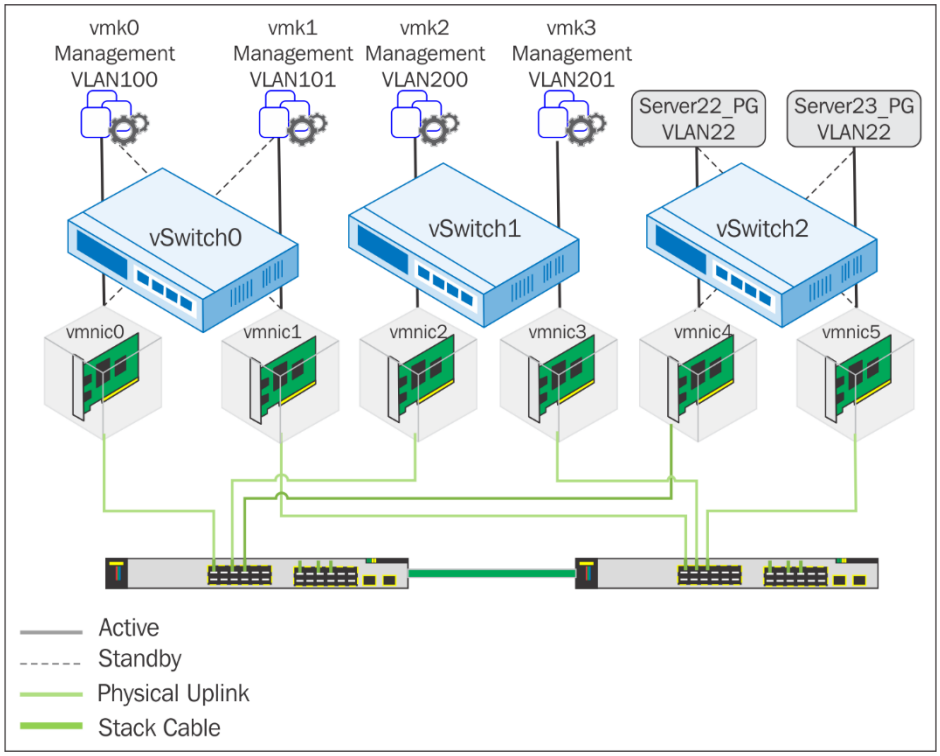
+ Add Another Solution

☑ Hide empty rows/columns

Copy | CSV | Print

VMware ESX/ESXi	6.0
VMware Site Recovery Manager 6.1	✓
VMware Site Recovery Manager 6.0	✓

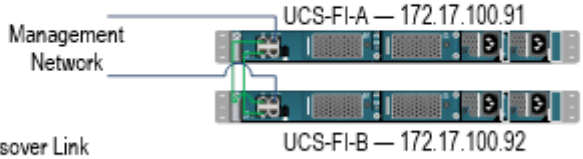
Showing 1 to 2 of 2 entries


vmk0
Management
VLAN100
vmk1
Management
VLAN101
vmk2
Management
VLAN200
vmk3
Management
VLAN201
Server22_PG
VLAN22
Server23_PG
VLAN22
vSwitch0
vSwitch1
vSwitch2
vmnic0
vmnic1
vmnic2
vmnic3
vmnic4
vmnic5
Active
Standby
Physical Uplink
Stack Cable

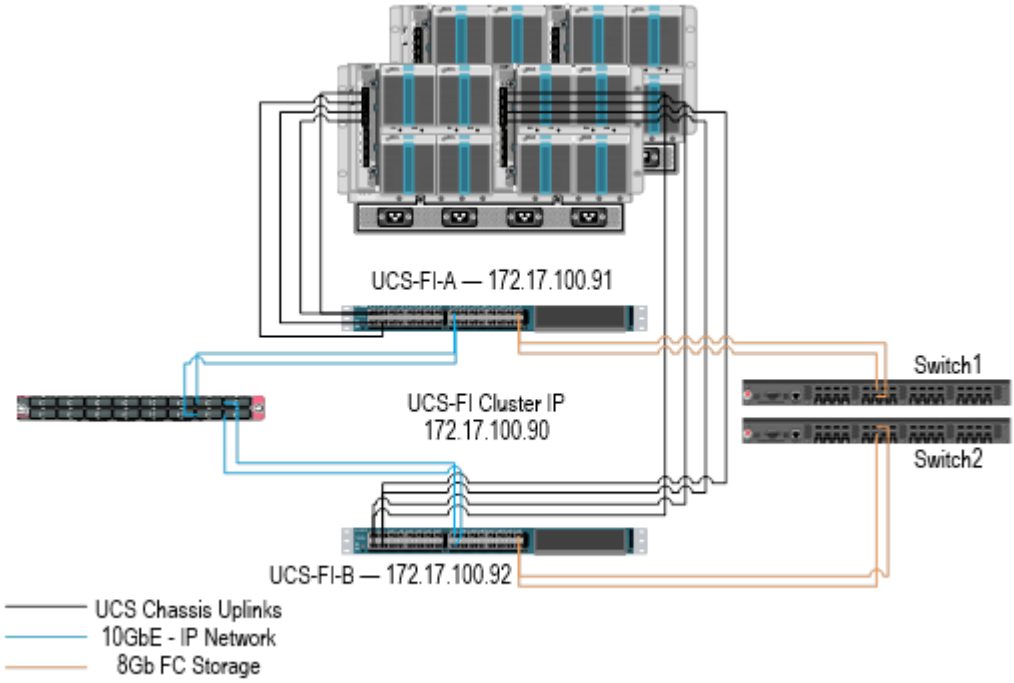
2 x Cisco 5108 Chassis
4 x Cisco UCS 2208 FE

9 x Cisco UCS B220 M3
2 x E5-2960 (8 core, 2.9 GHz)
96 GB Memory
Cisco UCS VIC 1240

2 x Cisco UCS 6248 FI



FI Crossover Link
1GbE - IP Network

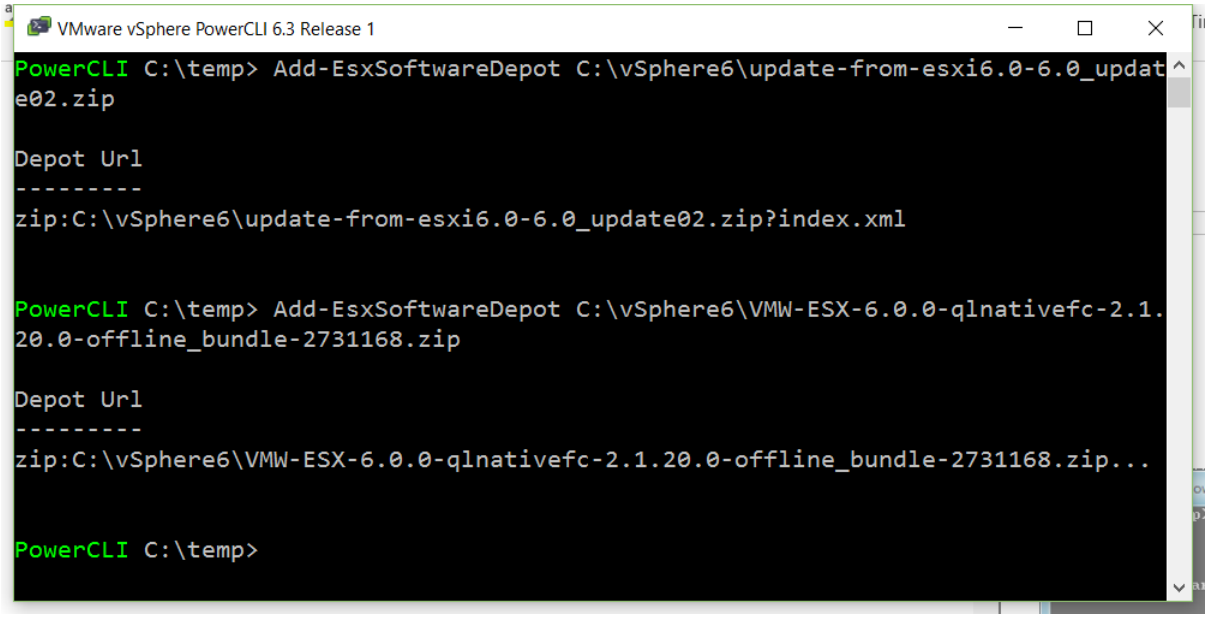

UCS-FI-A — 172.17.100.91
UCS-FI Cluster IP
172.17.100.90
Switch1
Switch2
UCS-FI-B — 172.17.100.92
UCS Chassis Uplinks
10GbE - IP Network
8Gb FC Storage

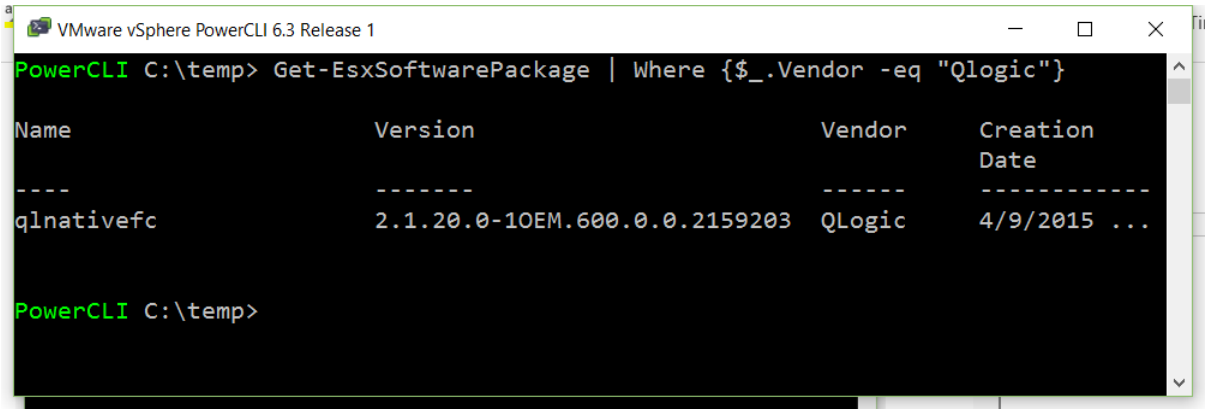
Product Downloads | Drivers & Tools | Open Source | Custom ISOs

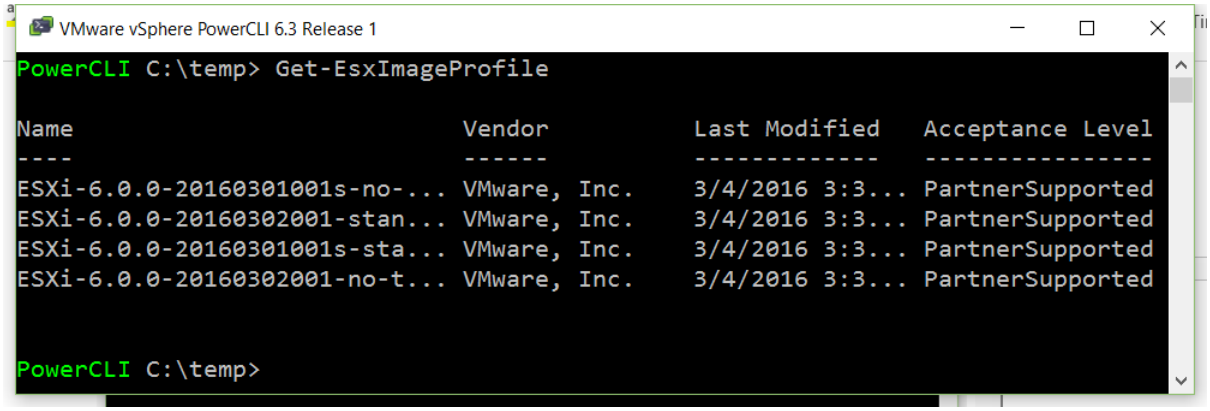
File	Information
For VMware Tools 10.0.6 Click here	
ESXi ISO image (Includes VMware Tools) File size: 357.95 MB File type: iso Read More	Download Now Download Manager
ESXi Offline Bundle File size: 680.91 MB File type: zip Read More	Download Now Download Manager
VMware vSphere Client 6.0 Update 2 File size: 348.81 MB File type: exe Read More	Download Now Download Manager

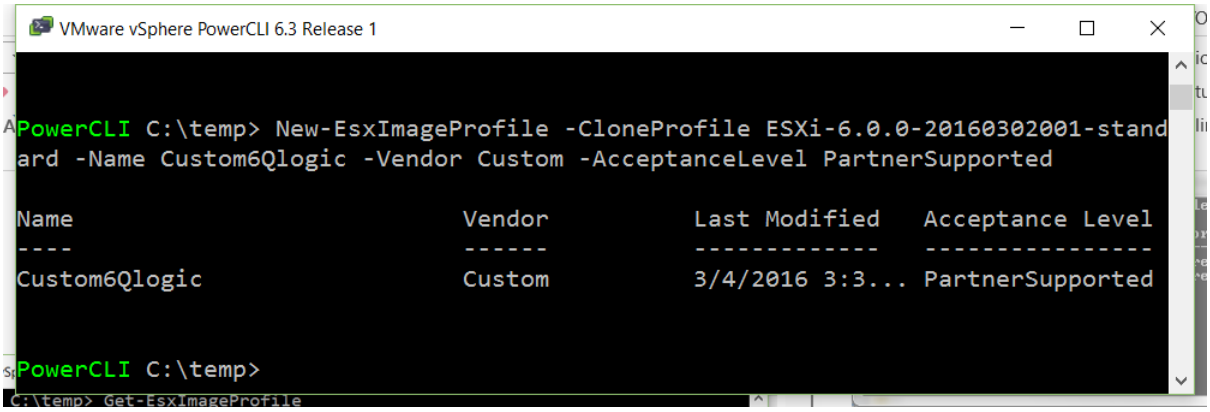
Product Downloads | Version History

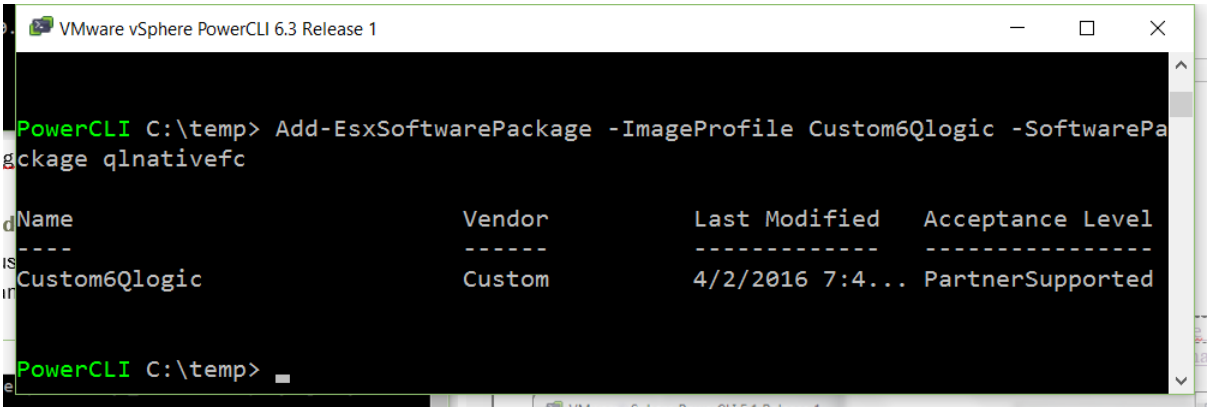
File	Information
VMware ESXi 6.0 qlnativefc 2.1.24.0-1 FC-FCoE driver for QLogic and OEM-branded FC and CNAs File size: 7 MB File type: ZIP Read More	Download Now

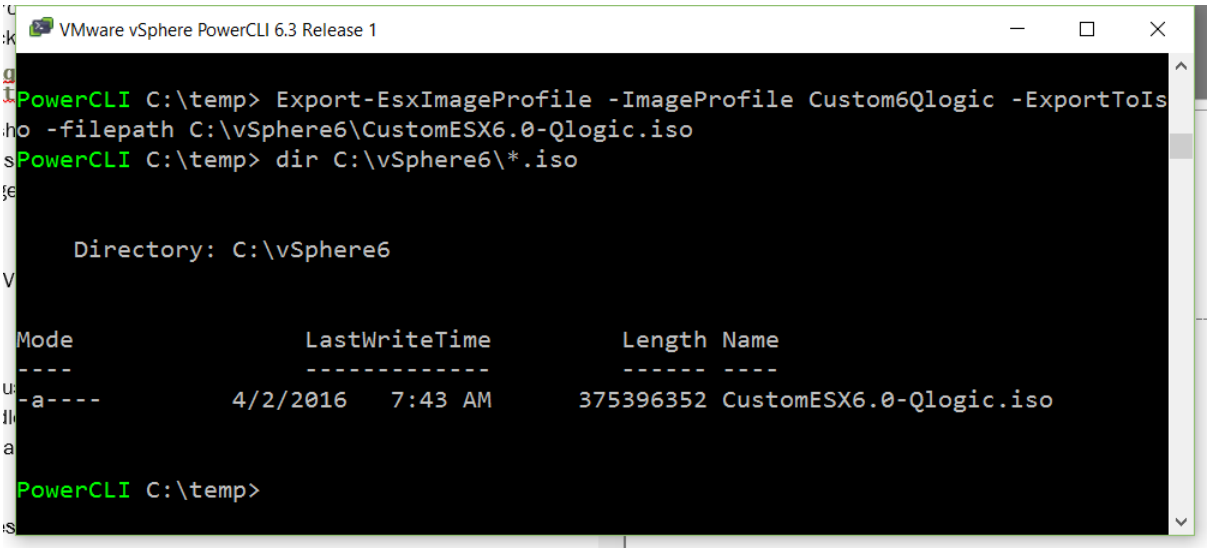

VMware vSphere PowerCLI 6.3 Release 1
PowerCLI C:\temp> Add-EsxSoftwareDepot C:\vSphere6\update-from-esxi6.0-6.0_update02.zip
Depot Url
----
zip:C:\vSphere6\update-from-esxi6.0-6.0_update02.zip?index.xml
PowerCLI C:\temp> Add-EsxSoftwareDepot C:\vSphere6\VMW-ESX-6.0.0-qlnativefc-2.1.20.0-offline_bundle-2731168.zip
Depot Url
----
zip:C:\vSphere6\VMW-ESX-6.0.0-qlnativefc-2.1.20.0-offline_bundle-2731168.zip...
PowerCLI C:\temp>


VMware vSphere PowerCLI 6.3 Release 1
PowerCLI C:\temp> Get-EsxSoftwarePackage | Where {$_.Vendor -eq "Qlogic"}
Name Version Vendor Creation Date
---- ------- ------ ------------
qlnativefc 2.1.20.0-1OEM.600.0.0.2159203 QLogic 4/9/2015 ...
PowerCLI C:\temp>


VMware vSphere PowerCLI 6.3 Release 1
PowerCLI C:\temp> Get-EsxImageProfile
Name Vendor Last Modified Acceptance Level
---- ------ ------------- ----------------
ESXi-6.0.0-20160301001s-no-... VMware, Inc. 3/4/2016 3:3... PartnerSupported
ESXi-6.0.0-20160302001-stan... VMware, Inc. 3/4/2016 3:3... PartnerSupported
ESXi-6.0.0-20160301001s-sta... VMware, Inc. 3/4/2016 3:3... PartnerSupported
ESXi-6.0.0-20160302001-no-t... VMware, Inc. 3/4/2016 3:3... PartnerSupported
PowerCLI C:\temp>


VMware vSphere PowerCLI 6.3 Release 1
PowerCLI C:\temp> New-EsxImageProfile -CloneProfile ESXi-6.0.0-20160302001-stand
ard -Name Custom6Qlogic -Vendor Custom -AcceptanceLevel PartnerSupported
Name Vendor Last Modified Acceptance Level
---- ------ ------------- ----------------
Custom6Qlogic Custom 3/4/2016 3:3... PartnerSupported
PowerCLI C:\temp>


VMware vSphere PowerCLI 6.3 Release 1
PowerCLI C:\temp> Add-EsxSoftwarePackage -ImageProfile Custom6Qlogic -SoftwarePa
ckage qlnativefc
Name Vendor Last Modified Acceptance Level
---- ------ ------------- ----------------
Custom6Qlogic Custom 4/2/2016 7:4... PartnerSupported
PowerCLI C:\temp>



Product Downloads | Drivers & Tools | Open Source | **Custom ISOs**

Custom ISOs	Release Date	
OEM Customized Installer CDs		
CISCO Custom Image for ESXi 6.0 U2 GA Install CD	2016-04-01	Go to Downloads
NEC Custom Image for ESXi 6.0U1b Install CD	2016-03-16	Go to Downloads
HPE Custom Image for ESXi 6.0 U2Install CD	2016-03-15	Go to Downloads
Fujitsu Custom Image for ESXi 6.0U1b Install CD	2016-02-12	Go to Downloads
CISCO Custom Image for ESXi 6.0.0 GA Install CD	2016-02-05	Go to Downloads

Back to Search Results

Print

Model Details

Model:	PowerEdge R620
Partner:	DELL
CPU Series:	Intel Xeon E5-2600 Series
System Type:	Rackmount
Number of Sockets:	2
Max Cores Per Socket:	8

Notes:
For further details about BIOS, server product configurations and best practices, please contact the server vendor.

VSA certification has moved to RAID controllers. Please see
http://knova-prod-kcc-vip.vmware.com:8080/contactcenter/php/search.do?cmd=displayKC&docType=kc&externalId=2038275&sliceId=2&docTypeID=DT_KB_1_1&dialogID=653068747&stateId=1%200%20653192216
for additional information

rss feed

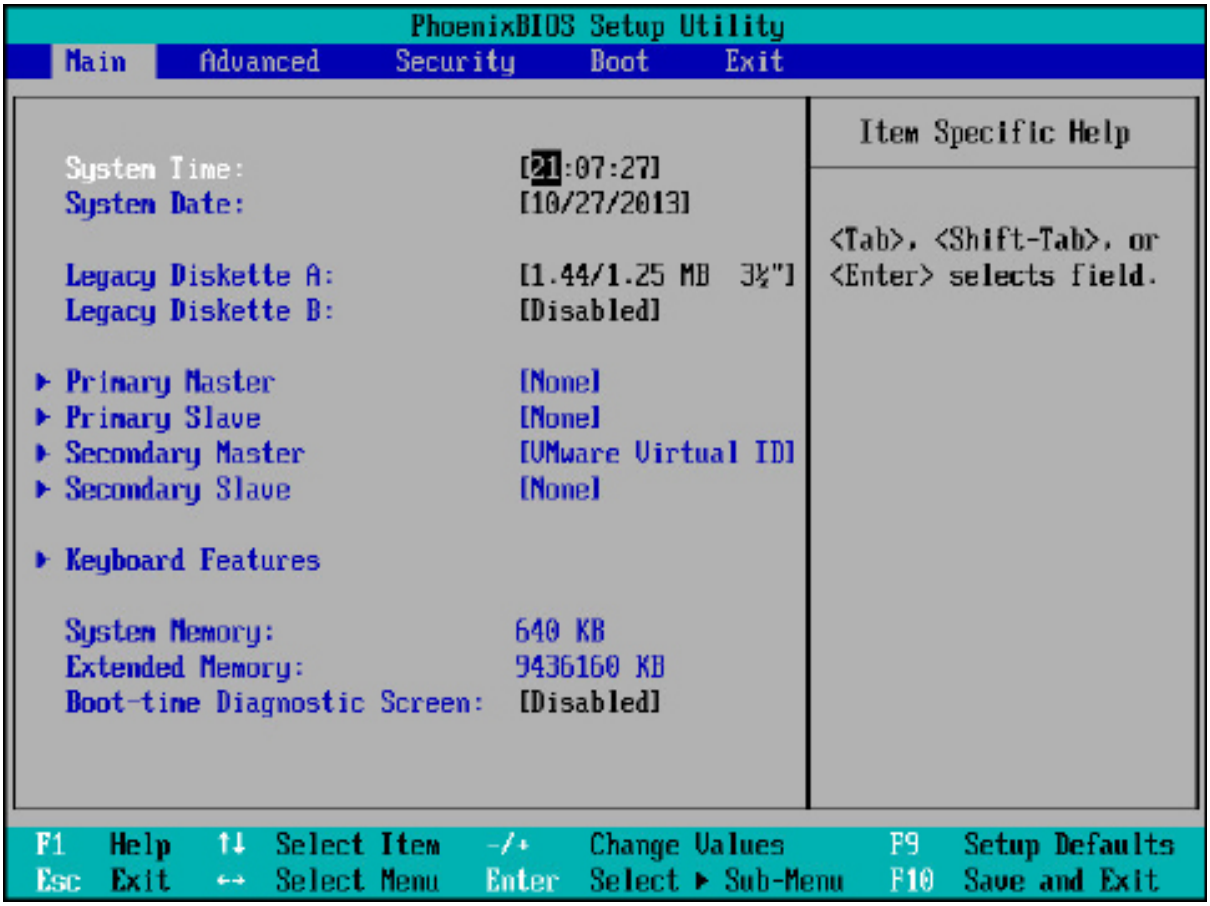
Model Release Details

VMware Product Name : ESXi 6.0

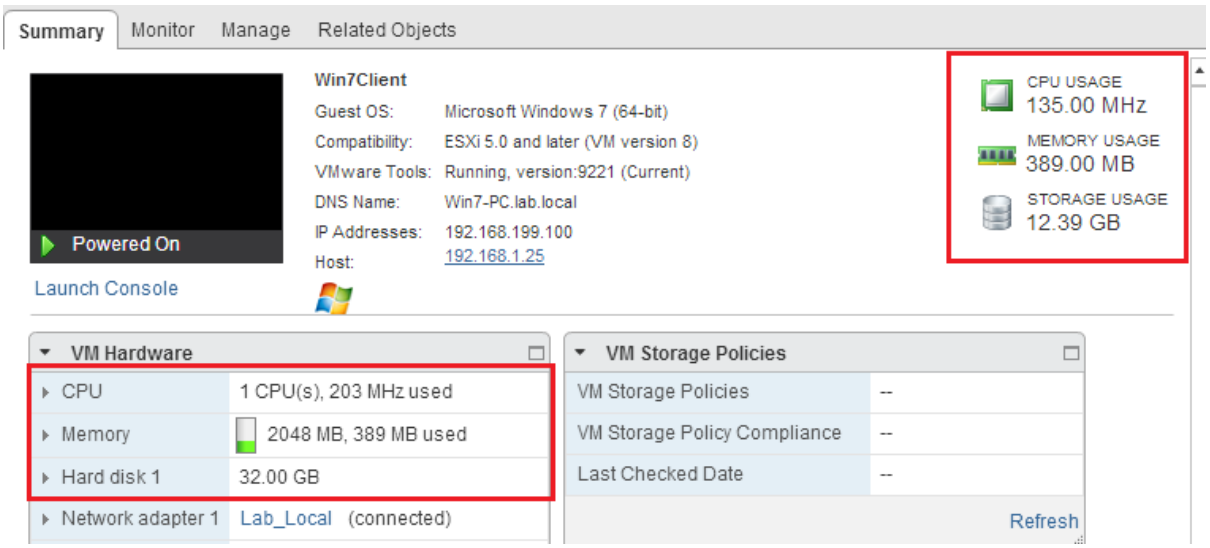
BIOS	Feature Category	Features	Feature Value	Hardware Health
Dell Inc. 2.4.3 UEFI Mode	Server	Certified Memory > 1TB Fault Tolerant(FT)	1536 GB	
Dell Inc. 2.4.3 UEFI Mode	Server	Trusted Execution Technology(TXT)		
Dell Inc. 2.4.3	Server	Certified Memory > 1TB Fault Tolerant(FT)	1650 GB	
Dell Inc. 2.4.3	Server	Legacy FT		
Dell Inc. 2.4.3	Server	Trusted Execution Technology(TXT)		

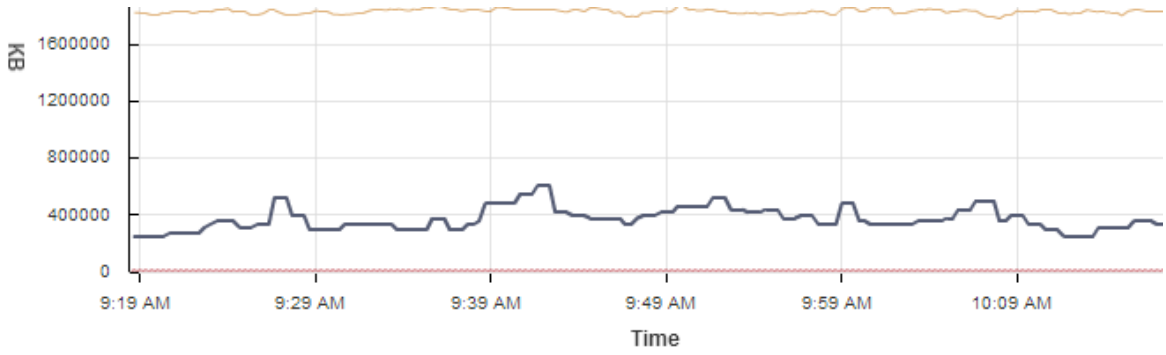
Back to Search Results

Print


PhoenixBIOS Setup Utility
Main
Advanced
Security
Boot
Exit
System Time:
[21:07:27]
System Date:
[10/27/2013]
Legacy Diskette A:
[1.44/1.25 MB 3½"]
Legacy Diskette B:
[Disabled]
Primary Master
[None]
Primary Slave
[None]
Secondary Master
[VMware Virtual ID]
Secondary Slave
[None]
Keyboard Features
System Memory:
640 KB
Extended Memory:
9436160 KB
Boot-time Diagnostic Screen:
[Disabled]
Item Specific Help
<Tab>, <Shift-Tab>, or
<Enter> selects field.
F1 Help
Esc Exit
Select Item
Select Menu
-/+ Change Values
Enter Select ▶ Sub-Menu
F9 Setup Defaults
F10 Save and Exit

Chapter 9: Virtual Machine Design

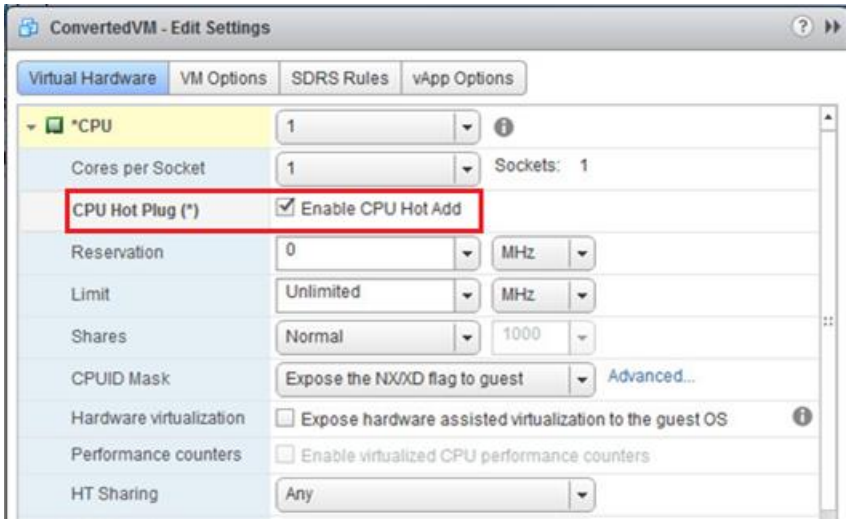


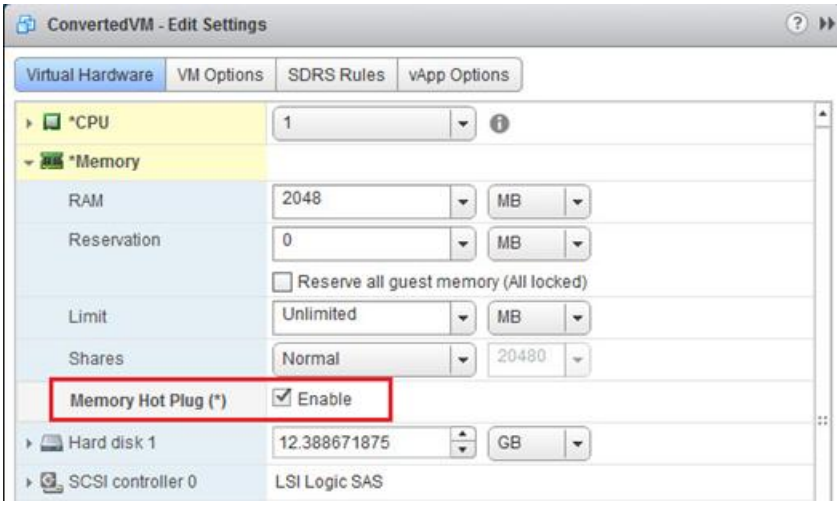


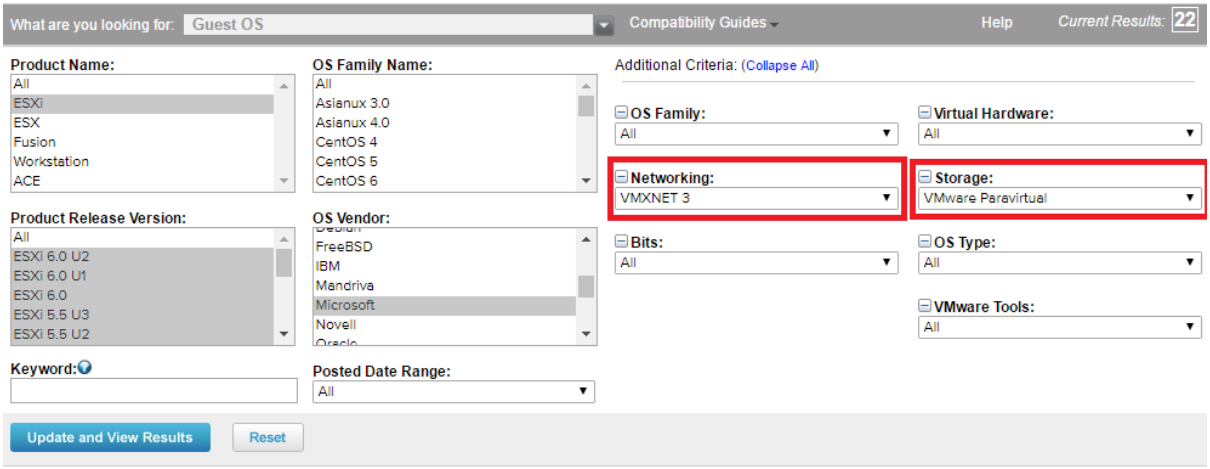
Performance Chart Legend

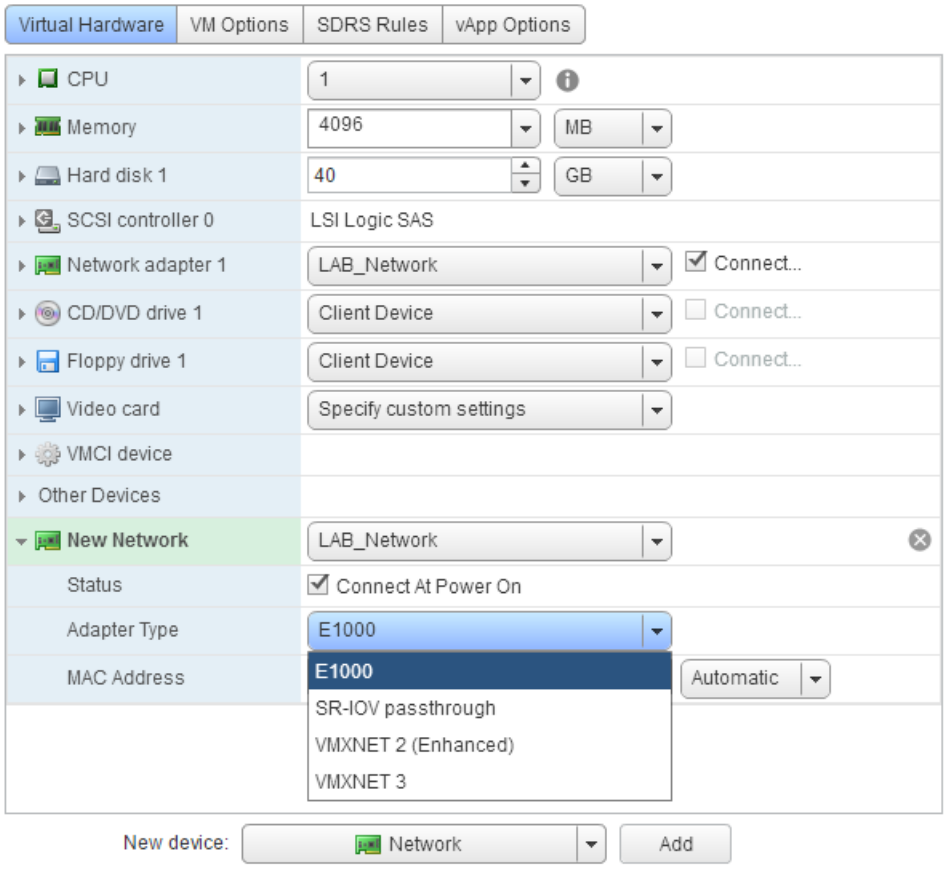
K..	Object	Measurement	1 ▲	Rollup	Units	Latest	Maximum	Minim...	Avera.
	Win7Client	Active		Avera...	KB	335544	608172	251...	372..
	Win7Client	Balloon		Avera...	KB	0	0	0	0

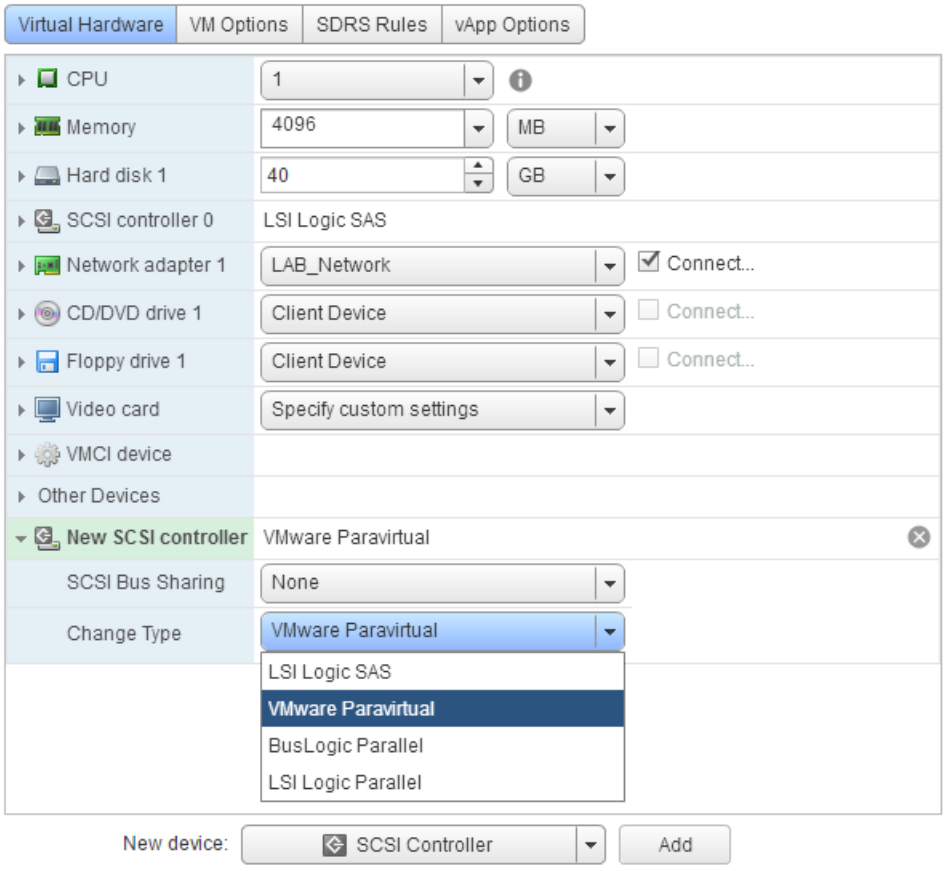
	, 5.0 U2 , 5.0 U1	on Media
Windows Server 2012 Datacenter Edition R2	Workstation12.0, 11.0, 10.0 Fusion8.0, 7.0, 6.0	
	ESXi6.0 U2 [1,6,7,8,3], 6.0 U1 [1,6,7,8,3], 6.0 [1,6,7,8,3], 5.5 U3 [1,6,7,8,3], 5.5 U2 [1,6,7,8,3], 5.5 U1 [1,6,7,8,3], 5.5 [1,6,7,8,3]	e1000e, VMXNET 3 (Recommended), IDE, LSI Logic SAS, SATA, VMware Paravirtual, Hot Add Memory, Hot Add vCPU, SMP, Tools Available on Media
	ESXi5.1 U3 [1,2,6,7,8,3], 5.1 U2 [1,2,6,7,8,3], 5.1 U1 [1,2,6,7,8,3], 5.1 [1,2,6,7,8,3], 5.0 U3 [1,2,6,7,9,8], 5.0 U2 [1,2,6,7,9,8]	e1000e, VMXNET 3 (Recommended), IDE, LSI Logic SAS, VMware Paravirtual, Hot Add Memory, Hot Add vCPU, SMP, Tools Available on Media

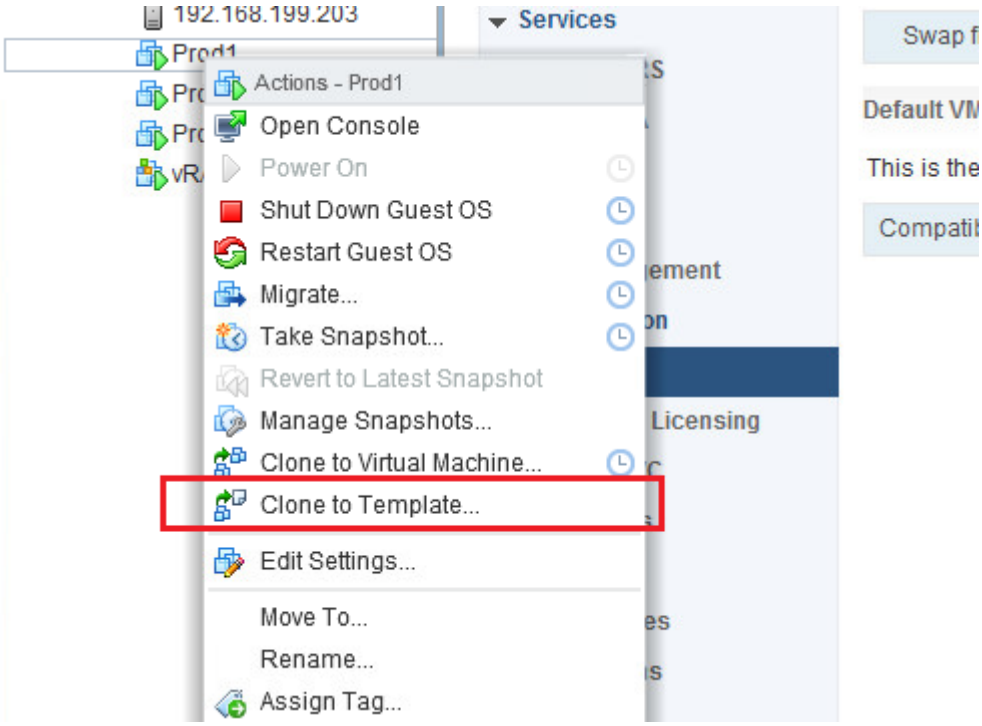


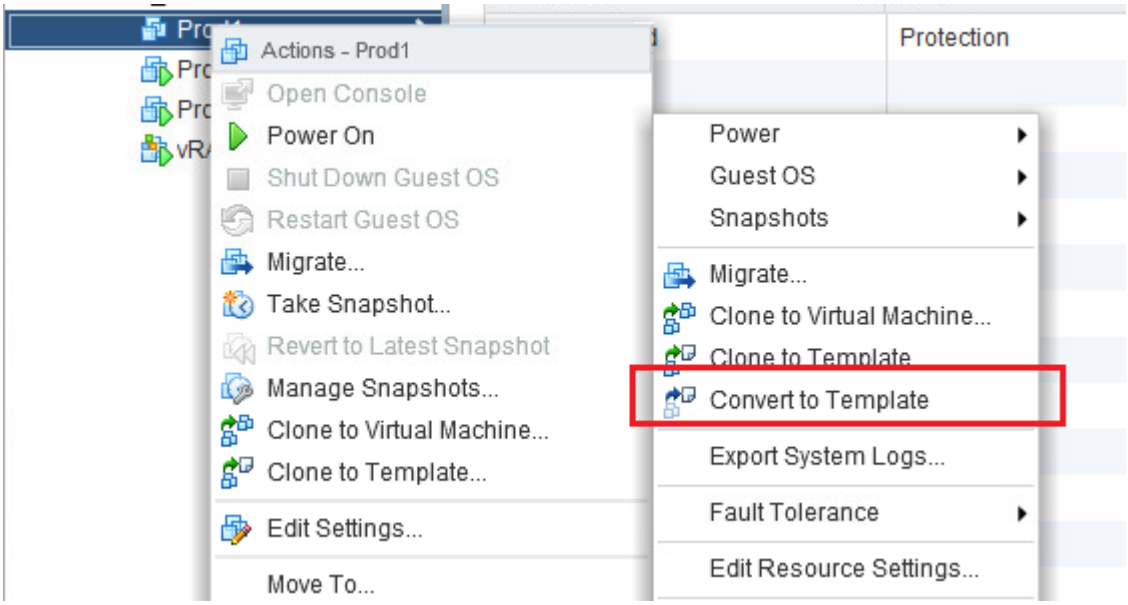


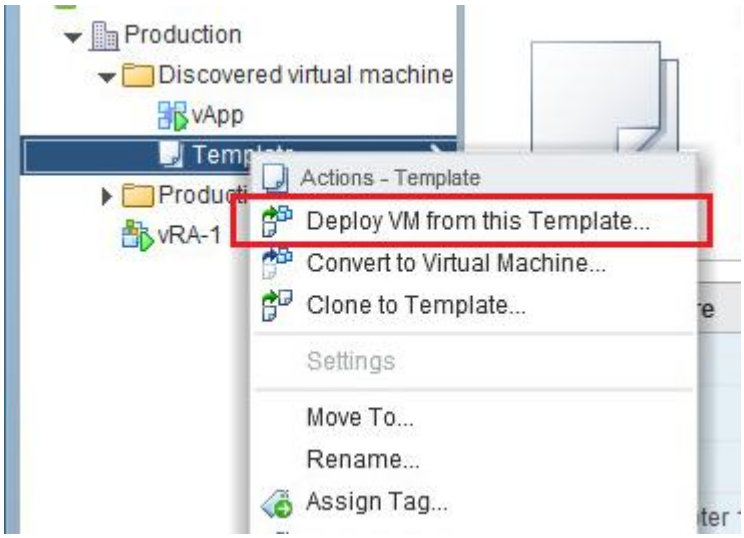

What are you looking for: Guest OS
Compatibility Guides
Help
Current Results: 22
Product Name:
All
ESXi
ESX
Fusion
Workstation
ACE
OS Family Name:
All
Asianux 3.0
Asianux 4.0
CentOS 4
CentOS 5
CentOS 6
Additional Criteria: (Collapse All)
OS Family:
All
Virtual Hardware:
All
Networking:
VMXNET 3
Storage:
VMware Paravirtual
Product Release Version:
All
ESXi 6.0 U2
ESXi 6.0 U1
ESXi 6.0
ESXi 5.5 U3
ESXi 5.5 U2
OS Vendor:
FreeBSD
IBM
Mandriva
Microsoft
Novell
Bits:
All
OS Type:
All
VMware Tools:
All
Keyword:
Posted Date Range:
All
Update and View Results
Reset

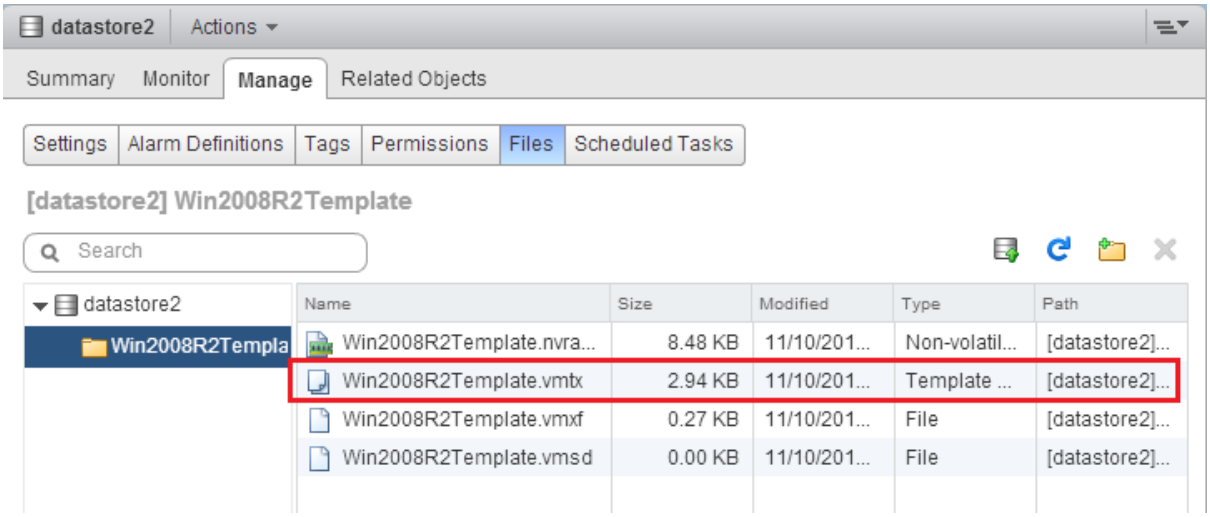

Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
1
Memory
4096
MB
Hard disk 1
40
GB
SCSI controller 0
LSI Logic SAS
Network adapter 1
LAB_Network
Connect...
CD/DVD drive 1
Client Device
Connect...
Floppy drive 1
Client Device
Connect...
Video card
Specify custom settings
VMCI device
Other Devices
New Network
LAB_Network
Status
Connect At Power On
Adapter Type
E1000
MAC Address
Automatic
E1000
SR-IOV passthrough
VMXNET 2 (Enhanced)
VMXNET 3
New device:
Network
Add

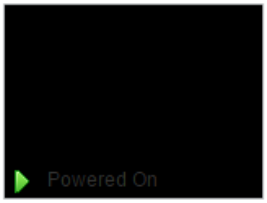

Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
1
Memory
4096
MB
Hard disk 1
40
GB
SCSI controller 0
LSI Logic SAS
Network adapter 1
LAB_Network
Connect...
CD/DVD drive 1
Client Device
Connect...
Floppy drive 1
Client Device
Connect...
Video card
Specify custom settings
VMCI device
Other Devices
New SCSI controller
VMware Paravirtual
SCSI Bus Sharing
None
Change Type
VMware Paravirtual
LSI Logic SAS
VMware Paravirtual
BusLogic Parallel
LSI Logic Parallel
New device:
SCSI Controller
Add


192.168.199.203
Prod1
Services
Swap f
Default VM
This is the
Compatil
Actions - Prod1
Open Console
Power On
Shut Down Guest OS
Restart Guest OS
Migrate...
Take Snapshot...
Revert to Latest Snapshot
Manage Snapshots...
Clone to Virtual Machine...
Clone to Template...
Edit Settings...
Move To...
Rename...
Assign Tag...
Licensing


Protection
Actions - Prod1
Open Console
Power On
Shut Down Guest OS
Restart Guest OS
Migrate...
Take Snapshot...
Revert to Latest Snapshot
Manage Snapshots...
Clone to Virtual Machine...
Clone to Template...
Edit Settings...
Move To...
Power
Guest OS
Snapshots
Migrate...
Clone to Virtual Machine...
Clone to Template
Convert to Template
Export System Logs...
Fault Tolerance
Edit Resource Settings...


Production
Discovered virtual machine
vApp
Actions - Template
Deploy VM from this Template...
Convert to Virtual Machine...
Clone to Template...
Settings
Move To...
Rename...
Assign Tag...
vRA-1


datastore2
Actions
Summary
Monitor
Manage
Related Objects
Settings
Alarm Definitions
Tags
Permissions
Files
Scheduled Tasks
[datastore2] Win2008R2Template
Search
datastore2
Win2008R2Templa
Name
Size
Modified
Type
Path
Win2008R2Template.nvra...
8.48 KB
11/10/201...
Non-volatil...
[datastore2]...
Win2008R2Template.vmtx
2.94 KB
11/10/201...
Template ...
[datastore2]...
Win2008R2Template.vmxf
0.27 KB
11/10/201...
File
[datastore2]...
Win2008R2Template.vmsd
0.00 KB
11/10/201...
File
[datastore2]...



Launch Remote Console
Download Remote Console

LABSQL01

Guest OS:	Microsoft Windows Server 2012 (64-bit)
Compatibility:	ESXi 6.0 and later (VM version 11)
VMware Tools:	Running, version:10240 (Upgrade available)
DNS Name:	labsql01.lab.local
IP Addresses:	192.168.1.152
Host:	192.168.1.26

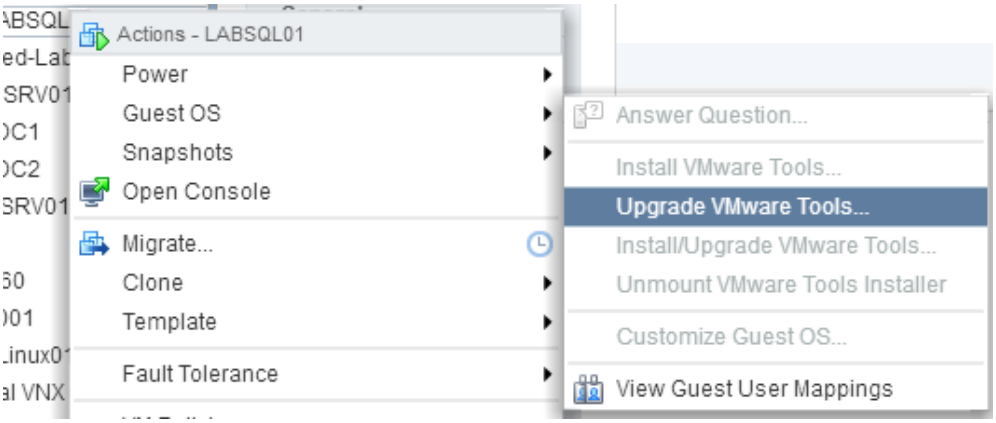
CPU USAGE
0.00 Hz

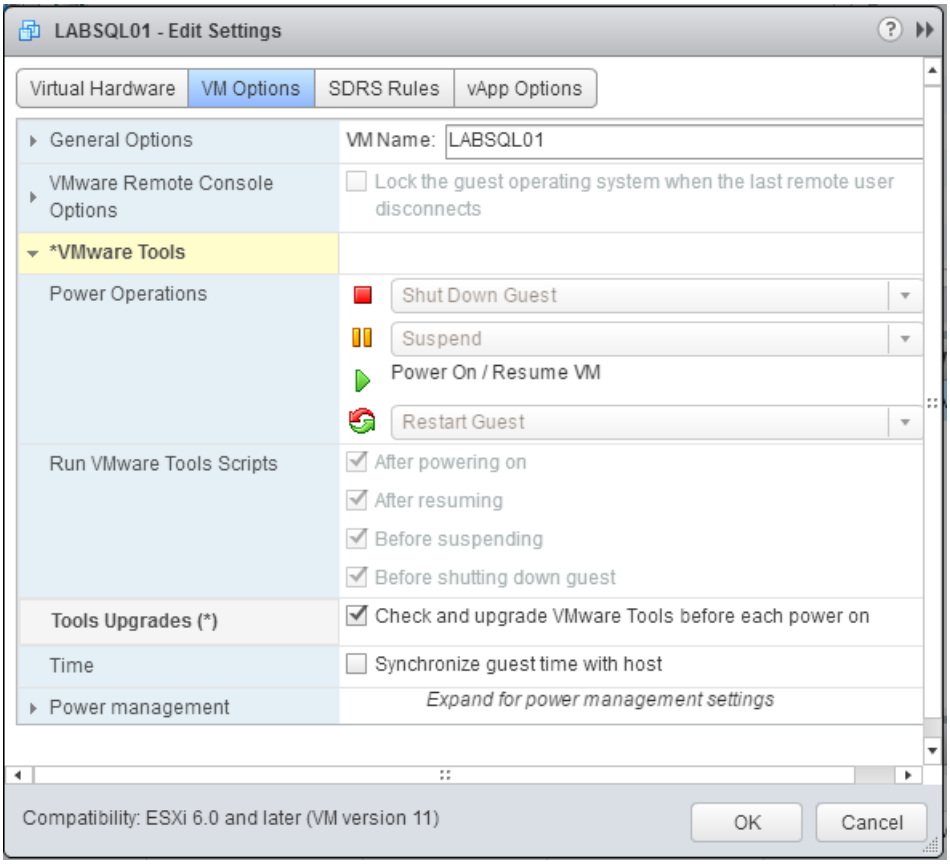
MEMORY USAGE
102.00 MB

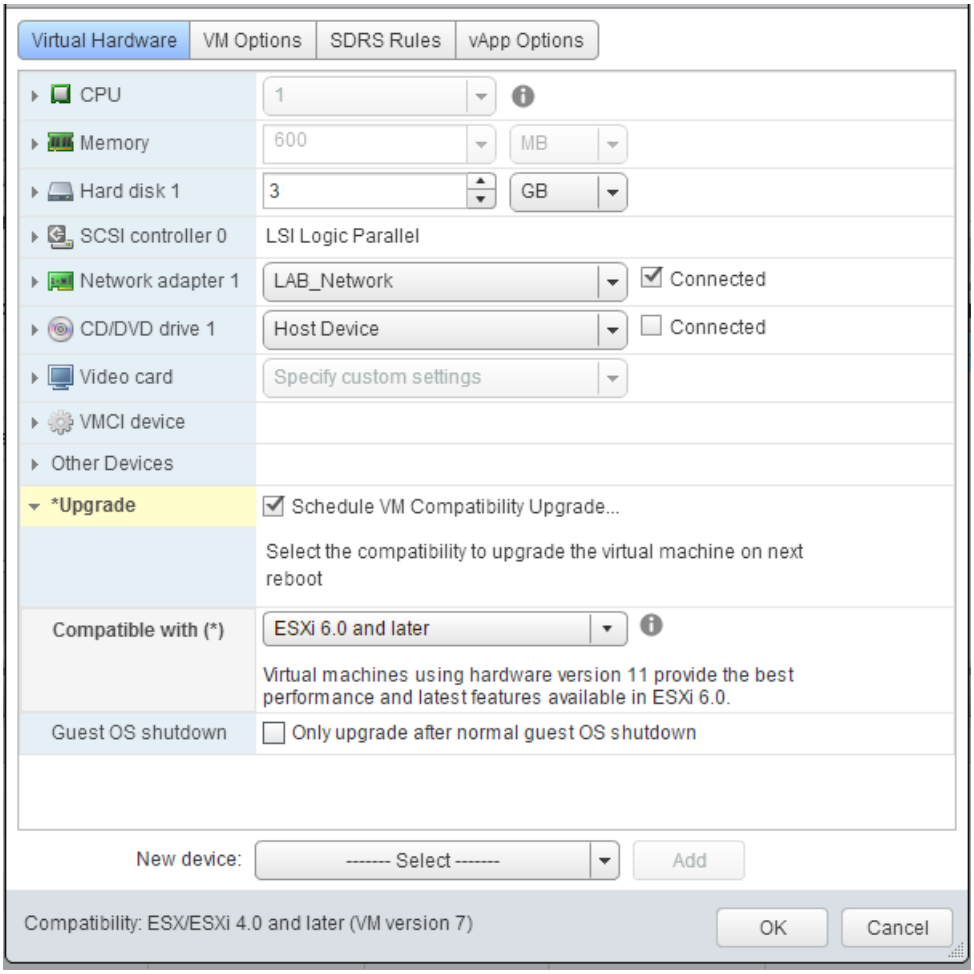
STORAGE USAGE
23.31 GB

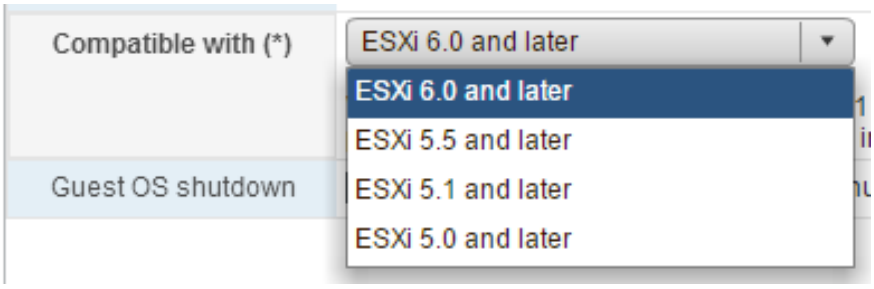
VMware Tools is outdated on this virtual machine. Update VMware Tools

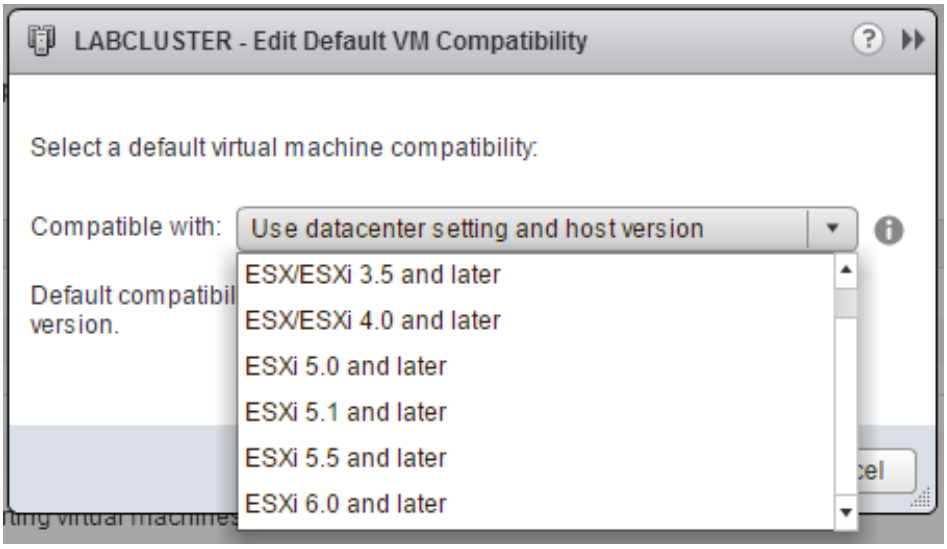
VMware Tools is outdated on this virtual machine. Update VMware Tools

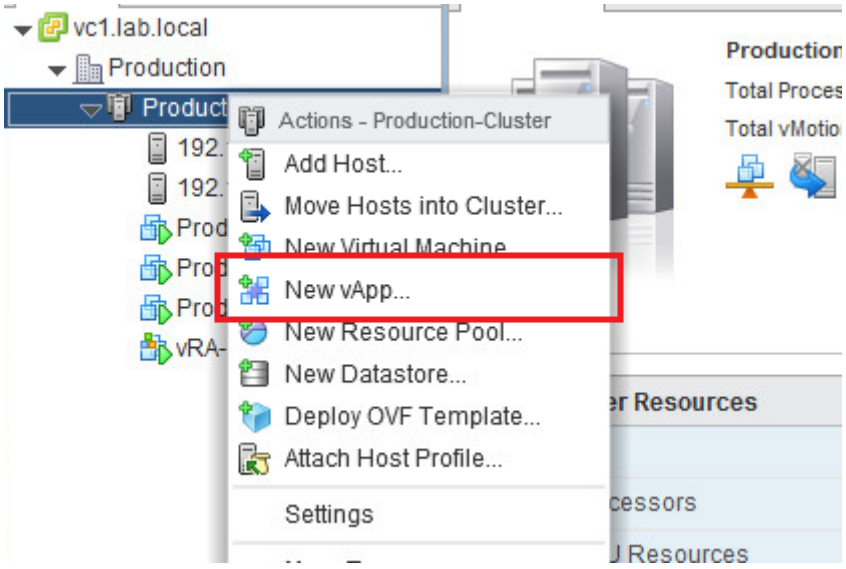

Actions - LABSQL01
Power
Guest OS
Snapshots
Open Console
Migrate...
Clone
Template
Fault Tolerance
Answer Question...
Install VMware Tools...
Upgrade VMware Tools...
Install/Upgrade VMware Tools...
Unmount VMware Tools Installer
Customize Guest OS...
View Guest User Mappings

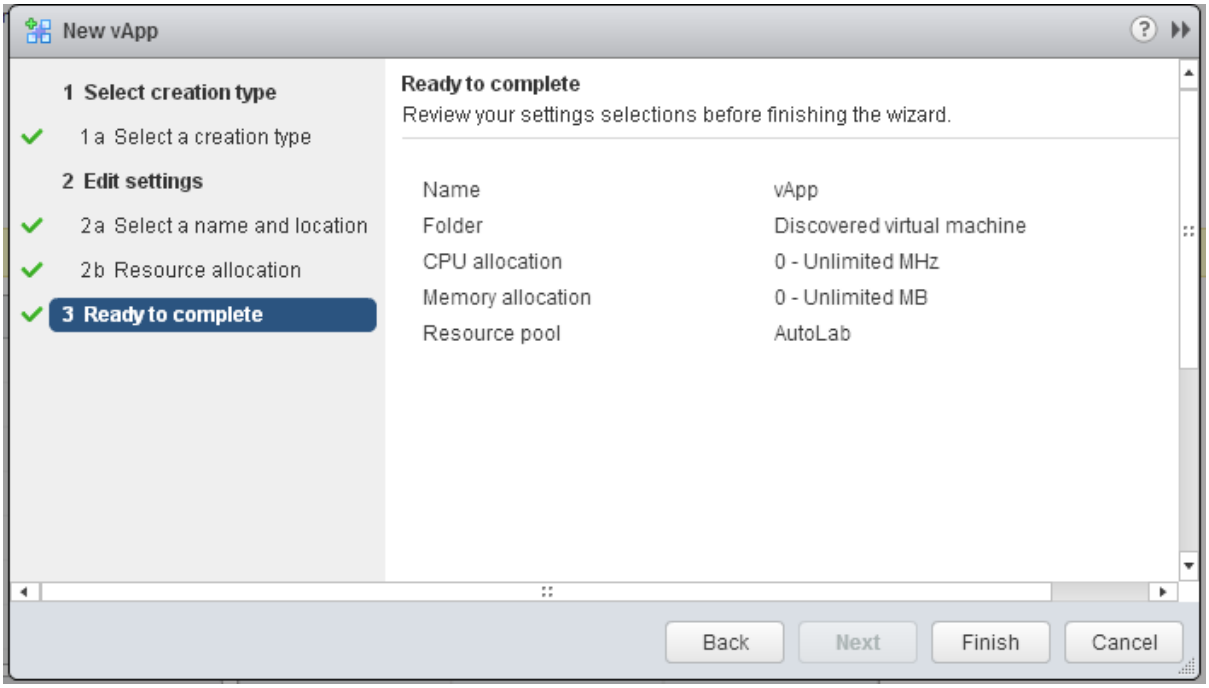

LABSQL01 - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
General Options
VM Name: LABSQL01
VMware Remote Console Options
Lock the guest operating system when the last remote user disconnects
*VMware Tools
Power Operations
Shut Down Guest
Suspend
Power On / Resume VM
Restart Guest
Run VMware Tools Scripts
After powering on
After resuming
Before suspending
Before shutting down guest
Tools Upgrades (*)
Check and upgrade VMware Tools before each power on
Time
Synchronize guest time with host
Power management
Expand for power management settings
Compatibility: ESXi 6.0 and later (VM version 11)
OK
Cancel

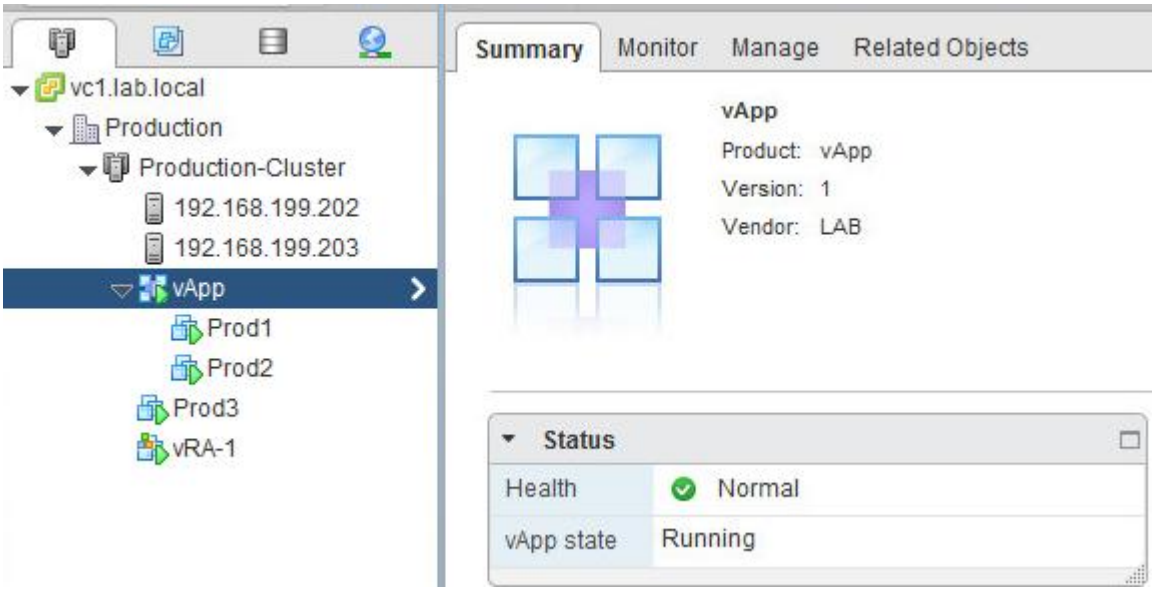

Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
1
Memory
600
MB
Hard disk 1
3
GB
SCSI controller 0
LSI Logic Parallel
Network adapter 1
LAB_Network
Connected
CD/DVD drive 1
Host Device
Connected
Video card
Specify custom settings
VMCI device
Other Devices
*Upgrade
Schedule VM Compatibility Upgrade...
Select the compatibility to upgrade the virtual machine on next reboot
Compatible with (*)
ESXi 6.0 and later
Virtual machines using hardware version 11 provide the best performance and latest features available in ESXi 6.0.
Guest OS shutdown
Only upgrade after normal guest OS shutdown
New device:
------- Select -------
Add
Compatibility: ESX/ESXi 4.0 and later (VM version 7)
OK
Cancel

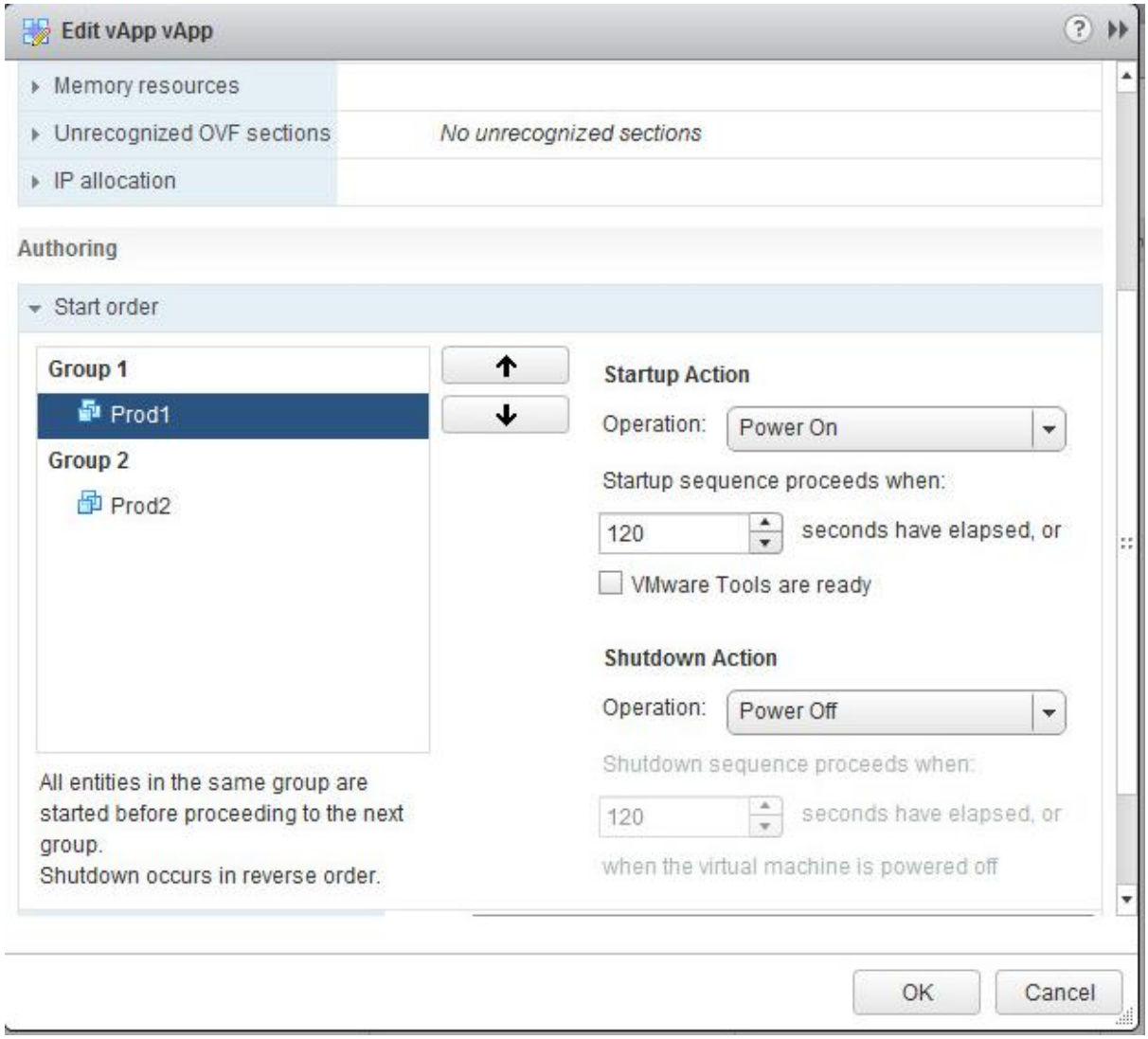

Compatible with (*)
ESXi 6.0 and later
ESXi 6.0 and later
ESXi 5.5 and later
ESXi 5.1 and later
ESXi 5.0 and later
Guest OS shutdown

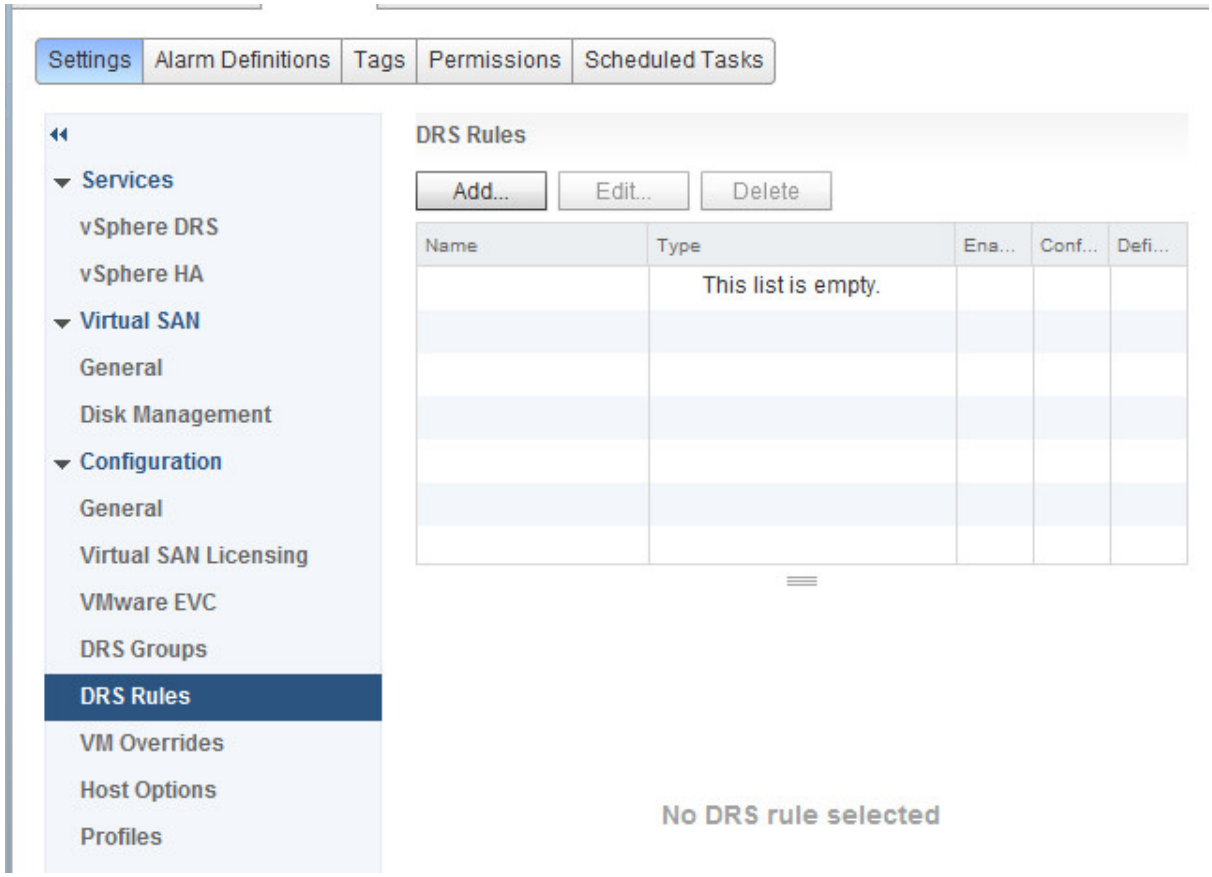

LABCLUSTER - Edit Default VM Compatibility
Select a default virtual machine compatibility:
Compatible with:
Use datacenter setting and host version
ESX/ESXi 3.5 and later
ESX/ESXi 4.0 and later
ESXi 5.0 and later
ESXi 5.1 and later
ESXi 5.5 and later
ESXi 6.0 and later
Default compatibil
version.

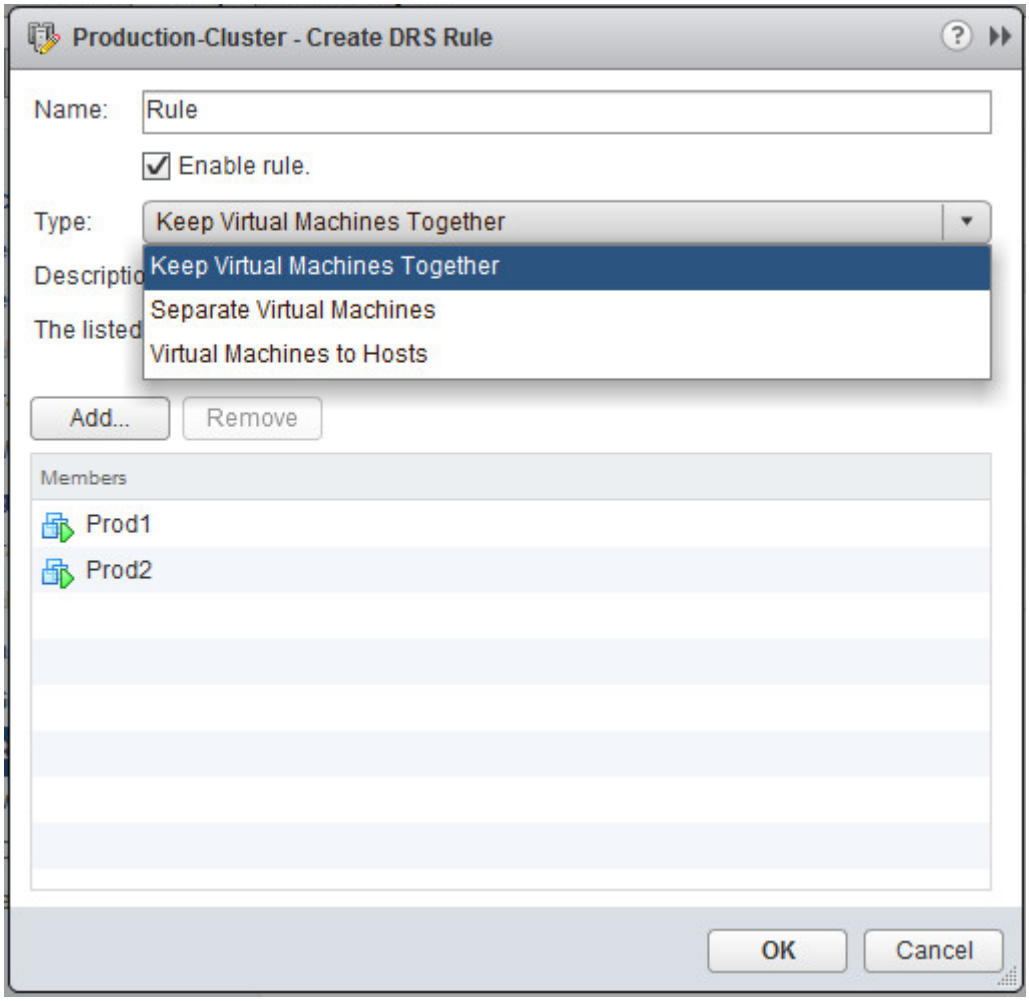

vc1.lab.local
Production
Actions - Production-Cluster
Add Host...
Move Hosts into Cluster...
New Virtual Machine...
New vApp...
New Resource Pool...
New Datastore...
Deploy OVF Template...
Attach Host Profile...
Settings
Production
Total Proces
Total vMotio
Resources

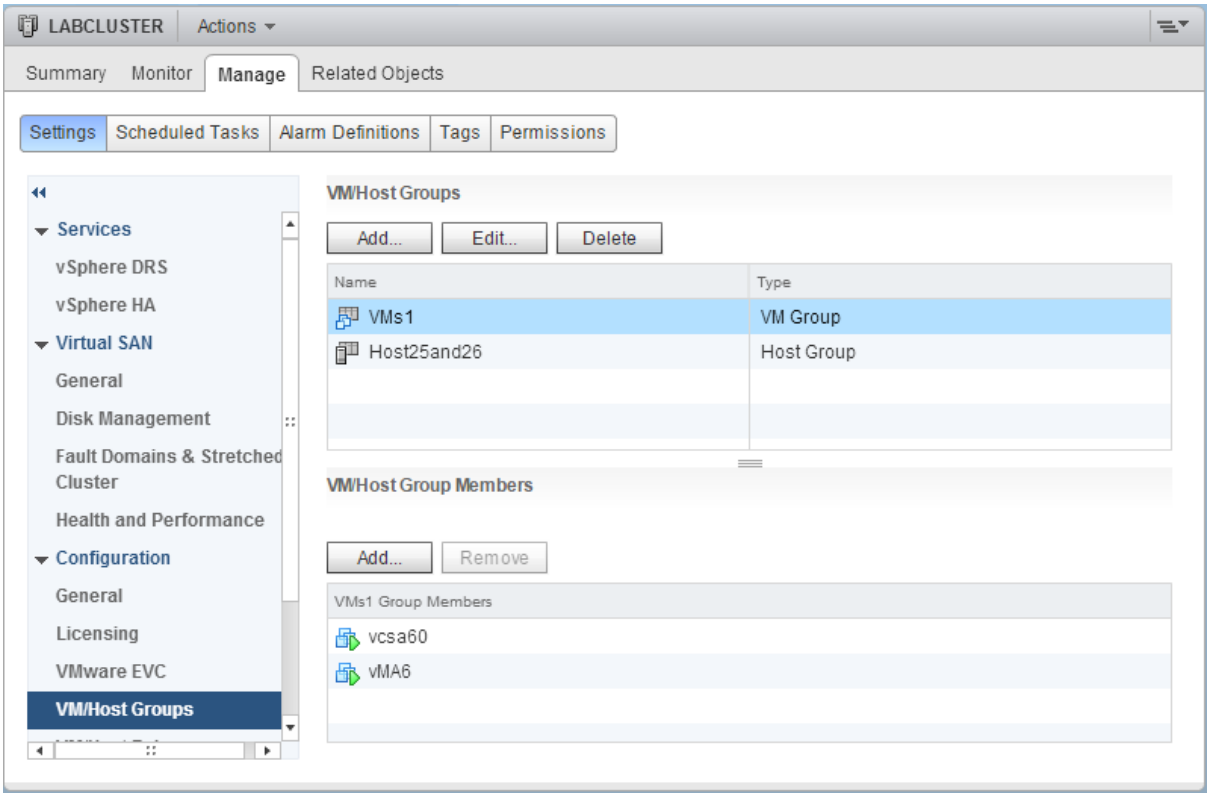

New vApp
1 Select creation type
1a Select a creation type
2 Edit settings
2a Select a name and location
2b Resource allocation
3 Ready to complete
Ready to complete
Review your settings selections before finishing the wizard.
Name
vApp
Folder
Discovered virtual machine
CPU allocation
0 - Unlimited MHz
Memory allocation
0 - Unlimited MB
Resource pool
AutoLab
Back
Next
Finish
Cancel

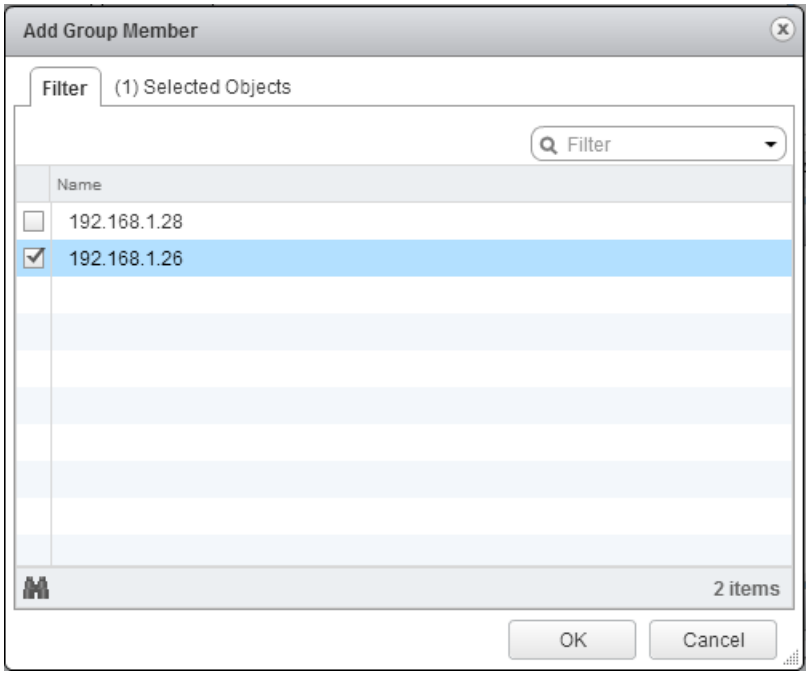

vc1.lab.local
Production
Production-Cluster
192.168.199.202
192.168.199.203
vApp
Prod1
Prod2
Prod3
vRA-1
Summary
Monitor
Manage
Related Objects
vApp
Product: vApp
Version: 1
Vendor: LAB
Status
Health
Normal
vApp state
Running

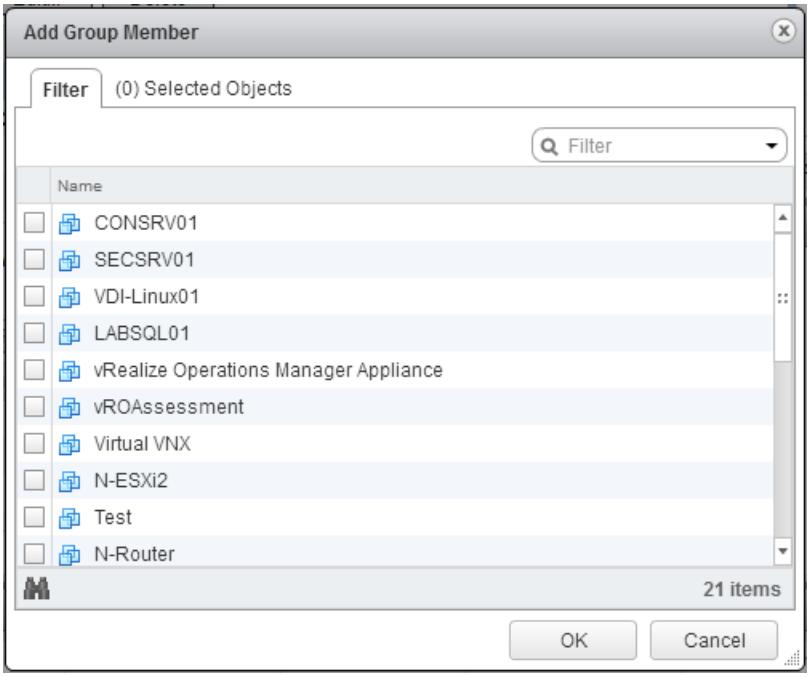

Edit vApp vApp
Memory resources
Unrecognized OVF sections
No unrecognized sections
IP allocation
Authoring
Start order
Group 1
Prod1
Group 2
Prod2
All entities in the same group are started before proceeding to the next group.
Shutdown occurs in reverse order.
Startup Action
Operation:
Power On
Startup sequence proceeds when:
120
seconds have elapsed, or
VMware Tools are ready
Shutdown Action
Operation:
Power Off
Shutdown sequence proceeds when:
120
seconds have elapsed, or
when the virtual machine is powered off
OK
Cancel

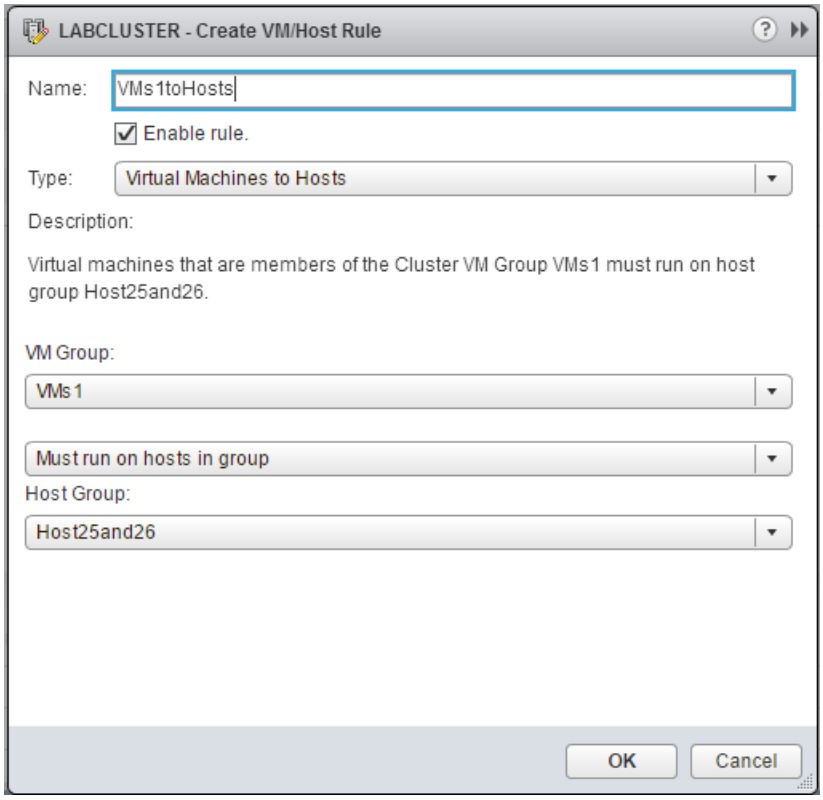

Settings
Alarm Definitions
Tags
Permissions
Scheduled Tasks
Services
vSphere DRS
vSphere HA
Virtual SAN
General
Disk Management
Configuration
General
Virtual SAN Licensing
VMware EVC
DRS Groups
DRS Rules
VM Overrides
Host Options
Profiles
DRS Rules
Add...
Edit...
Delete
Name
Type
Ena...
Conf...
Defi...
This list is empty.
No DRS rule selected

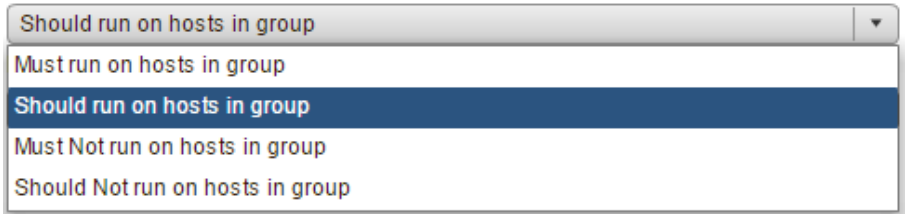

Production-Cluster - Create DRS Rule
Name:
Rule
Enable rule.
Type:
Keep Virtual Machines Together
Keep Virtual Machines Together
Separate Virtual Machines
Virtual Machines to Hosts
Add...
Remove
Members
Prod1
Prod2
OK
Cancel


LABCLUSTER
Actions
Summary
Monitor
Manage
Related Objects
Settings
Scheduled Tasks
Alarm Definitions
Tags
Permissions
Services
vSphere DRS
vSphere HA
Virtual SAN
General
Disk Management
Fault Domains & Stretched Cluster
Health and Performance
Configuration
General
Licensing
VMware EVC
VM/Host Groups
VM/Host Groups
Add...
Edit...
Delete
Name
Type
VMs1
VM Group
Host25and26
Host Group
VM/Host Group Members
Add...
Remove
VMs1 Group Members
vcsa60
vMA6

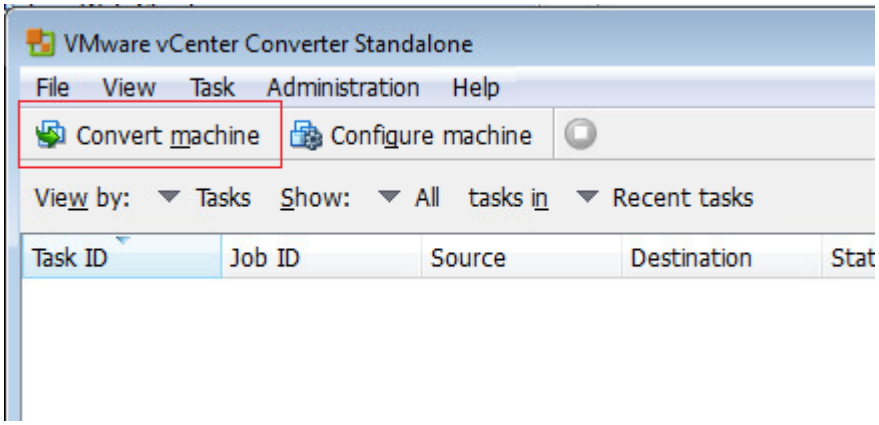

Add Group Member
Filter
(1) Selected Objects
Filter
Name
192.168.1.28
192.168.1.26
2 items
OK
Cancel

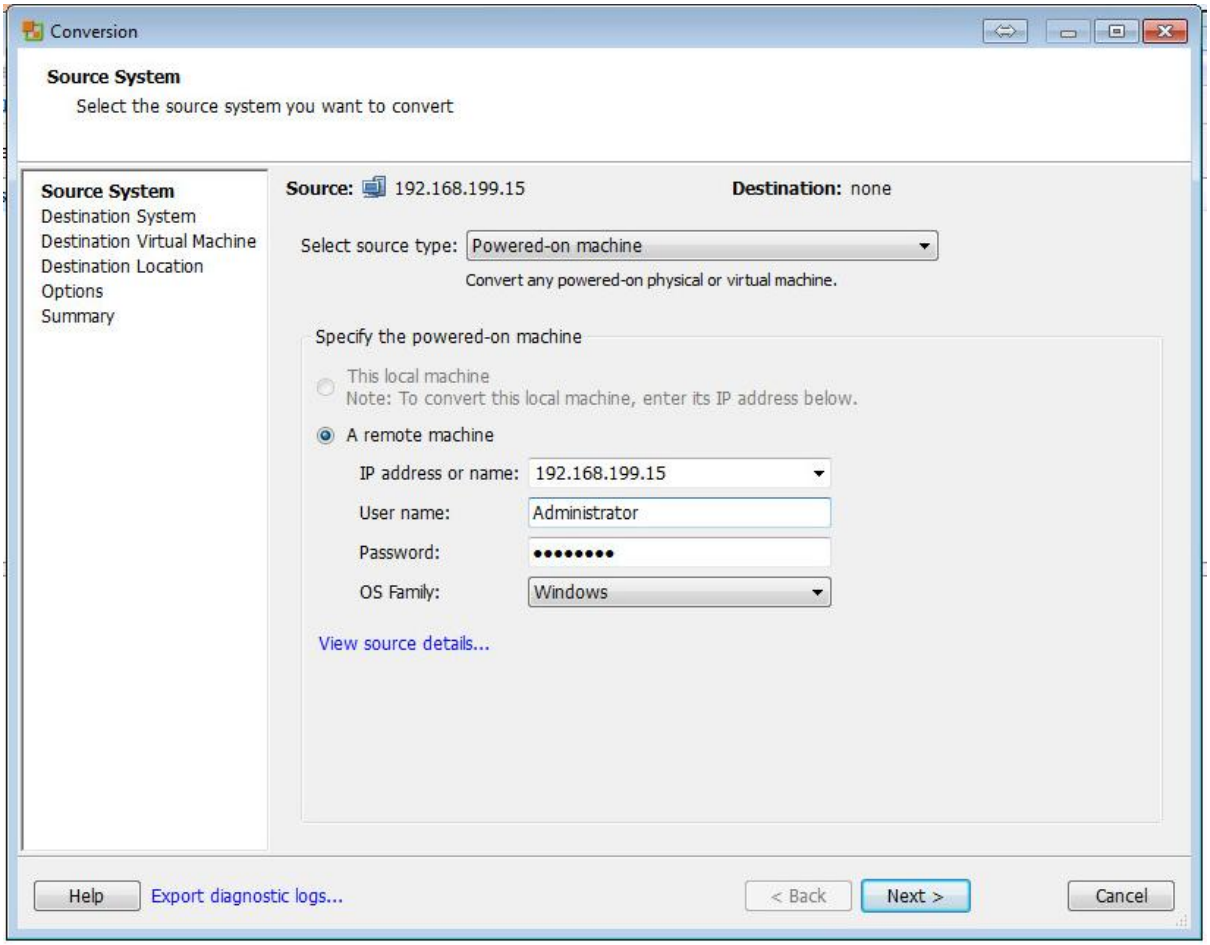

Add Group Member
Filter
(0) Selected Objects
Filter
Name
CONSRV01
SECSRV01
VDI-Linux01
LABSQL01
vRealize Operations Manager Appliance
vROAssessment
Virtual VNX
N-ESXi2
Test
N-Router
21 items
OK
Cancel

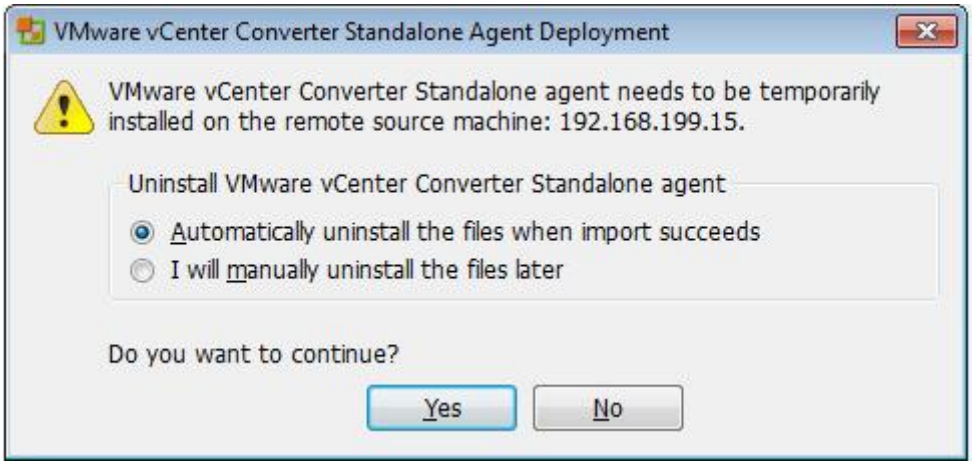

LABCLUSTER - Create VM/Host Rule
Name:
VMs1toHosts
Enable rule.
Type:
Virtual Machines to Hosts
Description:
Virtual machines that are members of the Cluster VM Group VMs1 must run on host group Host25and26.
VM Group:
VMs1
Must run on hosts in group
Host Group:
Host25and26
OK
Cancel

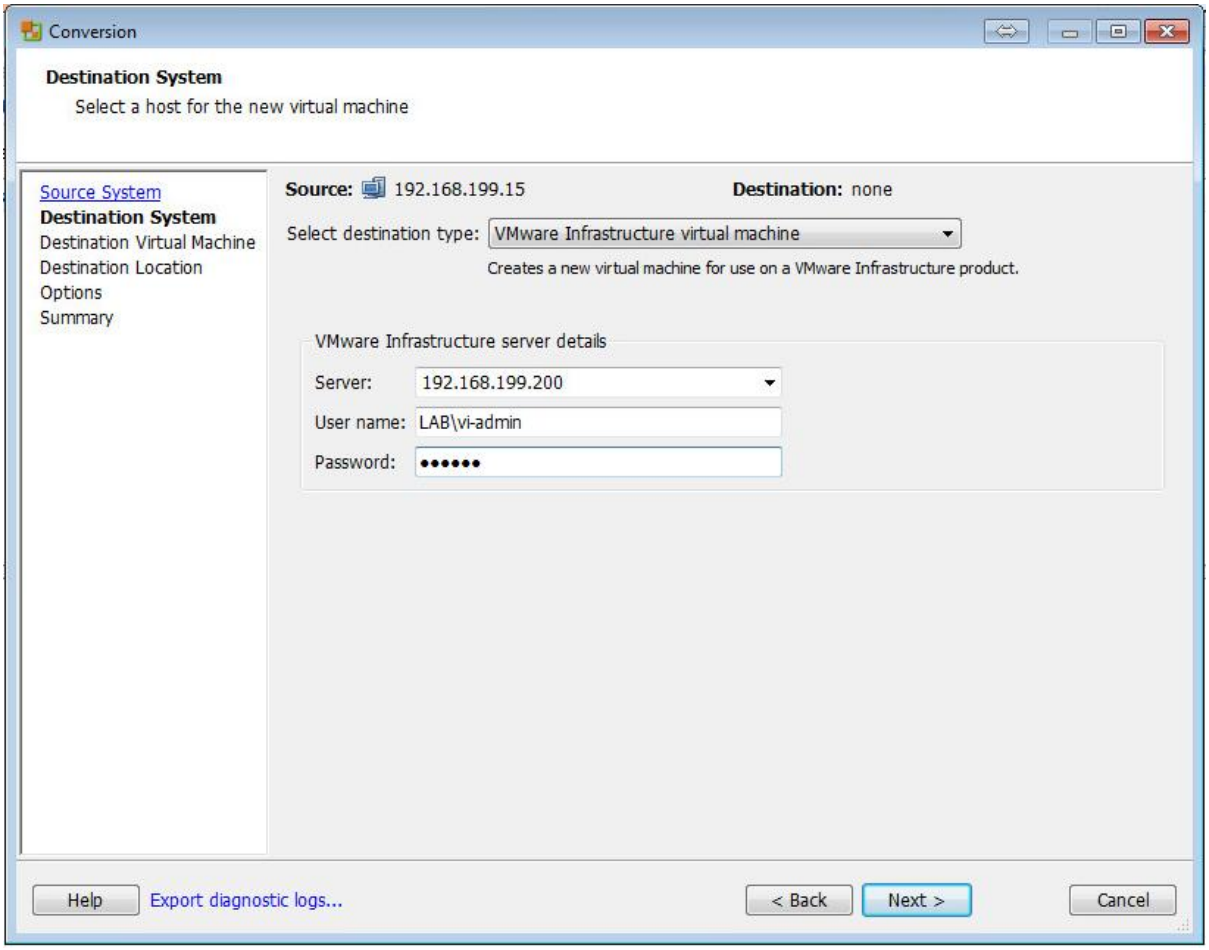

Should run on hosts in group
Must run on hosts in group
Should run on hosts in group
Must Not run on hosts in group
Should Not run on hosts in group

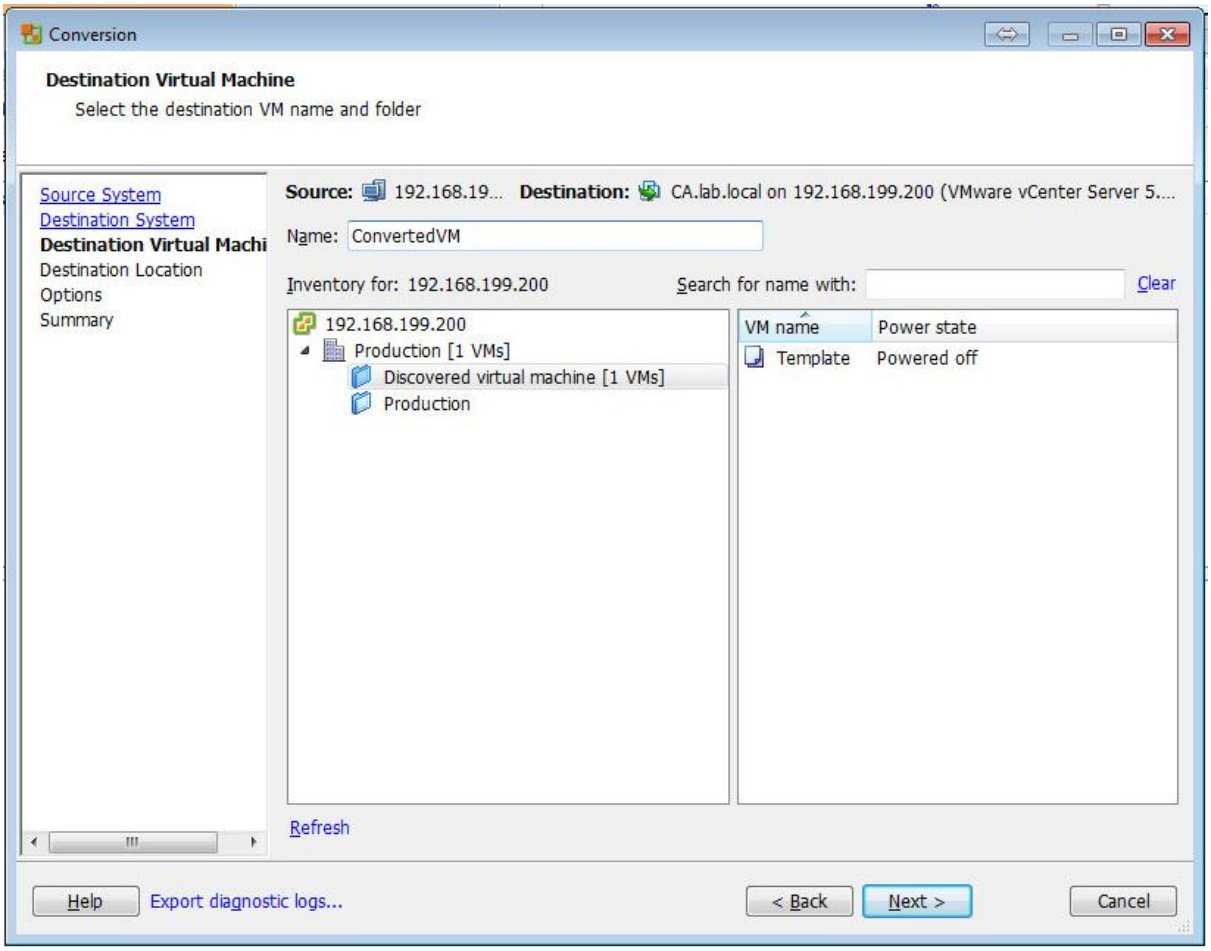
VMware vCenter Converter Standalone
vmware
VMware vCenter™
Converter Standalone
Welcome to VMware vCenter Converter Standalone
To log in to a server on this local machine, select "Connect to a local server". To log in to a remote server, enter the IP address or host name of the remote Converter server.
Connect to a local server
Enter the IP address or host name of the Converter server.
IP Address or name:
localhost
User name:
LAB\vi-admin
Password:
Login
Close

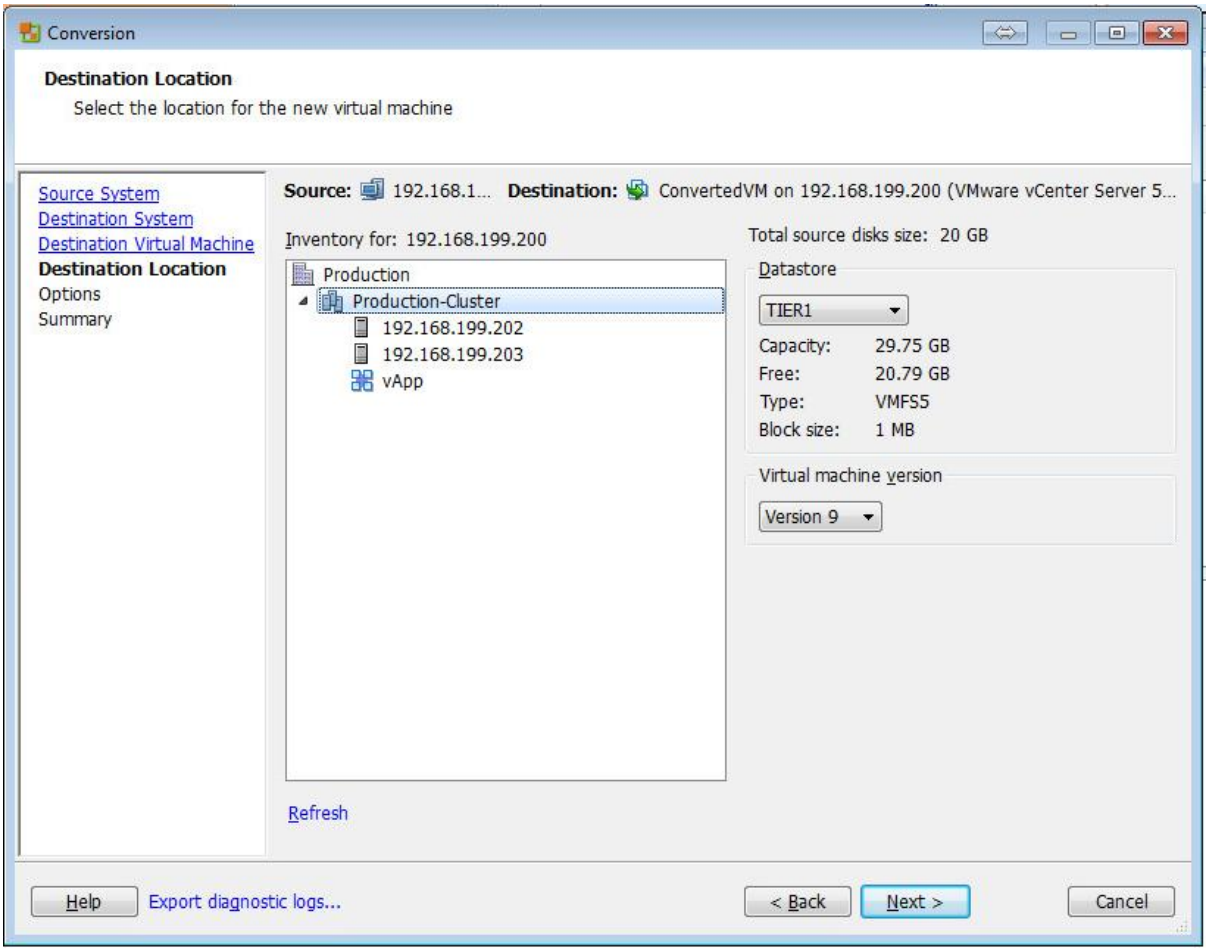

VMware vCenter Converter Standalone
File View Task Administration Help
Convert machine
Configure machine
View by: Tasks Show: All tasks in Recent tasks
Task ID
Job ID
Source
Destination
Stat

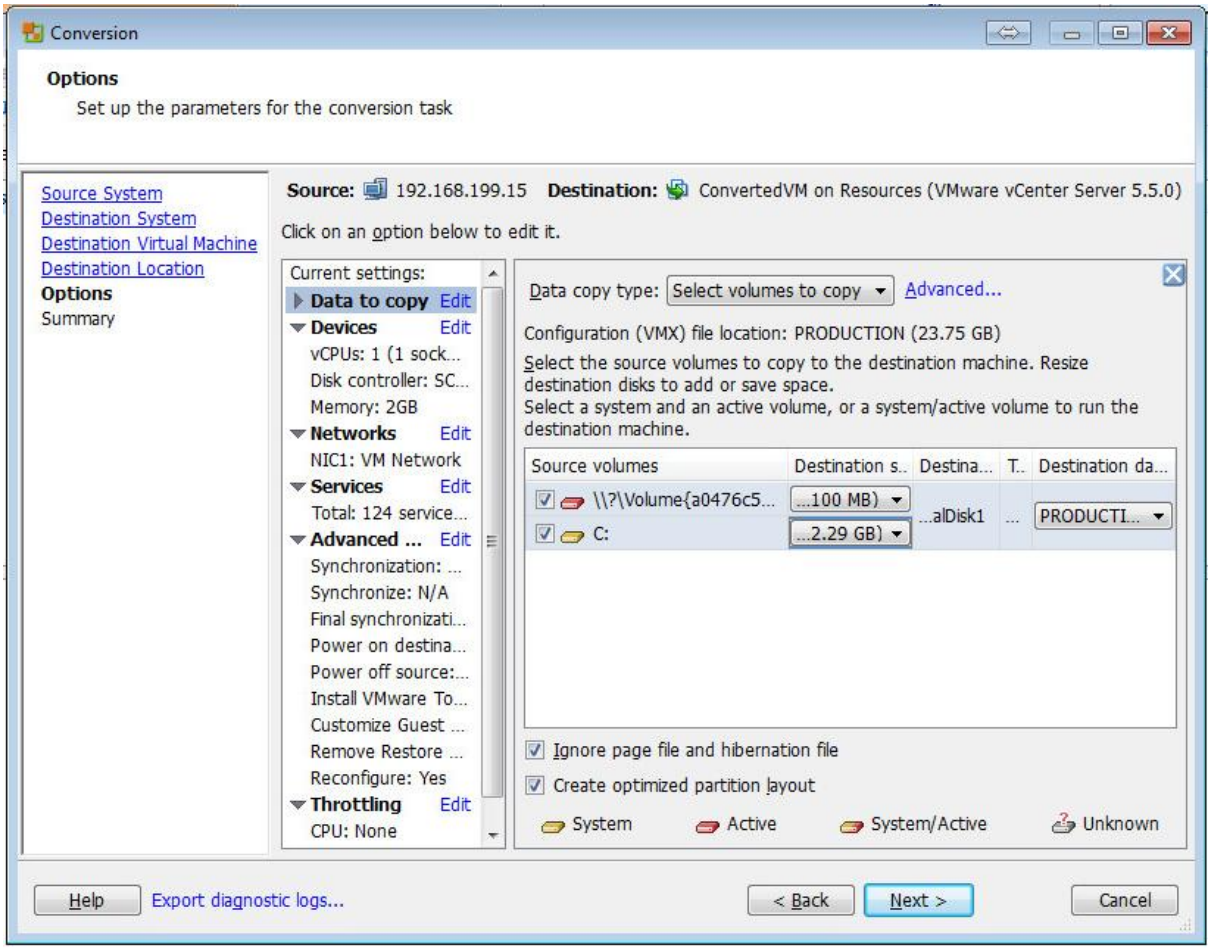

Conversion
Source System
Select the source system you want to convert
Source System
Destination System
Destination Virtual Machine
Destination Location
Options
Summary
Source: 192.168.199.15
Destination: none
Select source type: Powered-on machine
Convert any powered-on physical or virtual machine.
Specify the powered-on machine
This local machine
Note: To convert this local machine, enter its IP address below.
A remote machine
IP address or name: 192.168.199.15
User name: Administrator
Password: ••••••••
OS Family: Windows
View source details...
Help
Export diagnostic logs...
< Back
Next >
Cancel

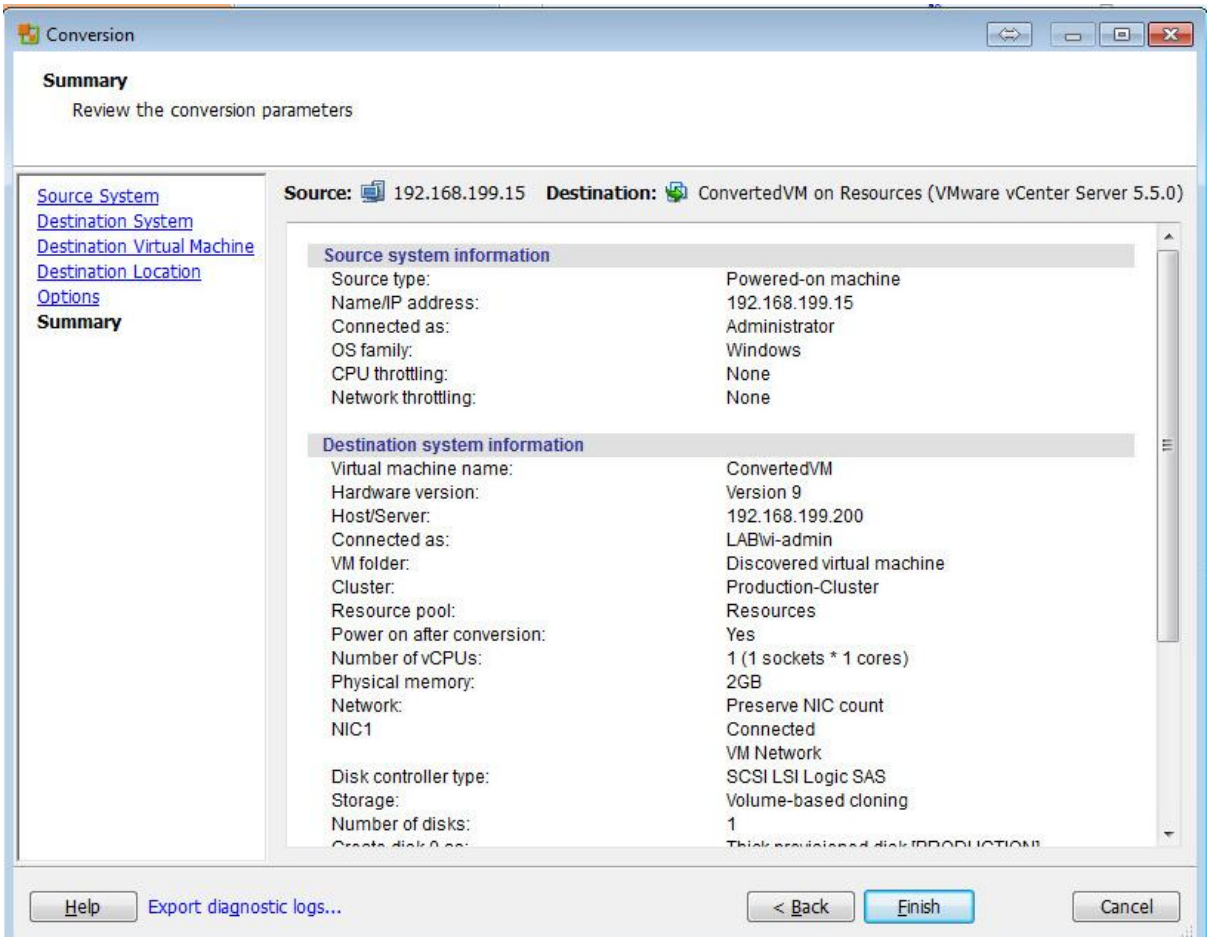

VMware vCenter Converter Standalone Agent Deployment
VMware vCenter Converter Standalone agent needs to be temporarily installed on the remote source machine: 192.168.199.15.
Uninstall VMware vCenter Converter Standalone agent
Automatically uninstall the files when import succeeds
I will manually uninstall the files later
Do you want to continue?
Yes
No

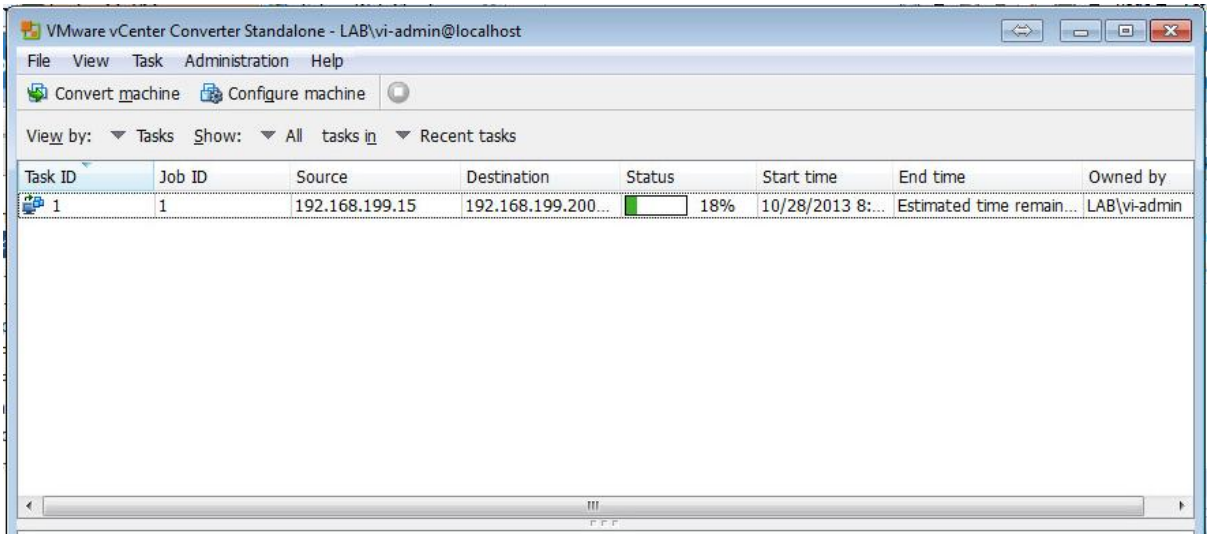

Conversion
Destination System
Select a host for the new virtual machine
Source System
Destination System
Destination Virtual Machine
Destination Location
Options
Summary
Source: 192.168.199.15
Destination: none
Select destination type: VMware Infrastructure virtual machine
Creates a new virtual machine for use on a VMware Infrastructure product.
VMware Infrastructure server details
Server: 192.168.199.200
User name: LAB\vi-admin
Password: ••••••
Help
Export diagnostic logs...
< Back
Next >
Cancel


Conversion
Destination Virtual Machine
Select the destination VM name and folder
Source System
Destination System
Destination Virtual Machi
Destination Location
Options
Summary
Source: 192.168.19...
Destination: CA.lab.local on 192.168.199.200 (VMware vCenter Server 5....
Name: ConvertedVM
Inventory for: 192.168.199.200
Search for name with:
Clear
192.168.199.200
Production [1 VMs]
Discovered virtual machine [1 VMs]
Production
VM name
Power state
Template
Powered off
Refresh
Help
Export diagnostic logs...
< Back
Next >
Cancel

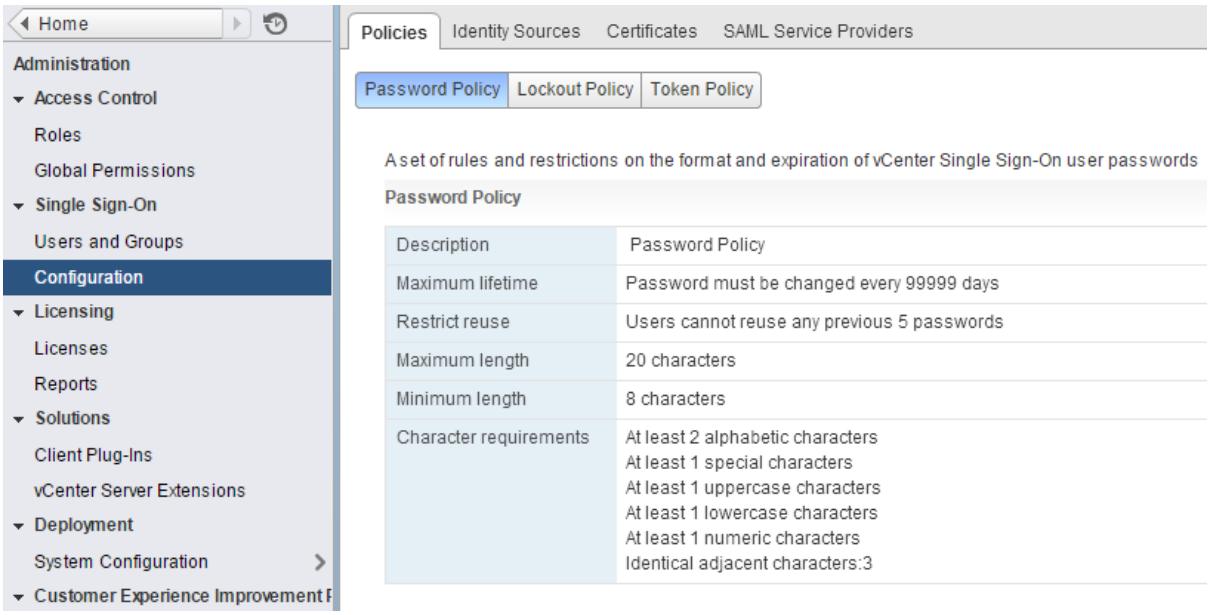

Conversion
Destination Location
Select the location for the new virtual machine
Source System
Destination System
Destination Virtual Machine
Destination Location
Options
Summary
Source: 192.168.1... Destination: ConvertedVM on 192.168.199.200 (VMware vCenter Server 5...
Inventory for: 192.168.199.200
Production
Production-Cluster
192.168.199.202
192.168.199.203
vApp
Refresh
Total source disks size: 20 GB
Datastore
TIER1
Capacity: 29.75 GB
Free: 20.79 GB
Type: VMFS5
Block size: 1 MB
Virtual machine version
Version 9
Help
Export diagnostic logs...
< Back
Next >
Cancel

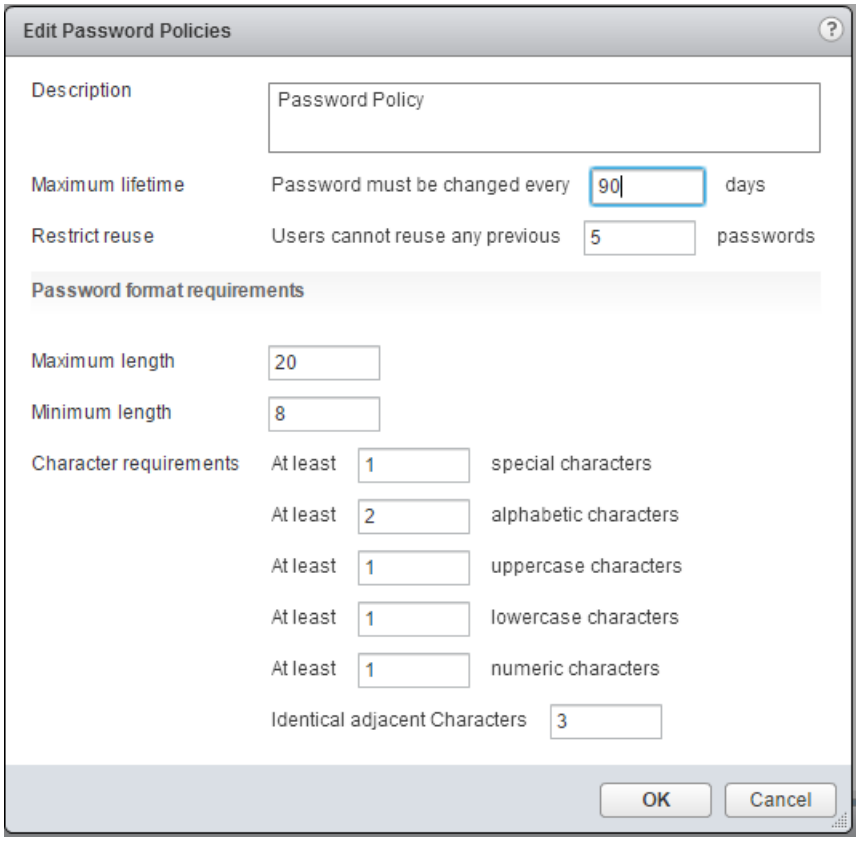

Conversion
Options
Set up the parameters for the conversion task
Source System
Destination System
Destination Virtual Machine
Destination Location
Options
Summary
Source: 192.168.199.15 Destination: ConvertedVM on Resources (VMware vCenter Server 5.5.0)
Click on an option below to edit it.
Current settings:
Data to copy Edit
Devices Edit
vCPUs: 1 (1 sock...
Disk controller: SC...
Memory: 2GB
Networks Edit
NIC1: VM Network
Services Edit
Total: 124 service...
Advanced ... Edit
Synchronization: ...
Synchronize: N/A
Final synchronizati...
Power on destina...
Power off source:...
Install VMware To...
Customize Guest ...
Remove Restore ...
Reconfigure: Yes
Throttling Edit
CPU: None
Data copy type: Select volumes to copy Advanced...
Configuration (VMX) file location: PRODUCTION (23.75 GB)
Select the source volumes to copy to the destination machine. Resize destination disks to add or save space.
Select a system and an active volume, or a system/active volume to run the destination machine.
Source volumes
Destination s..
Destina...
T..
Destination da...
\\?\Volume{a0476c5...
...100 MB)
...alDisk1
...
PRODUCTI...
C:
...2.29 GB)
Ignore page file and hibernation file
Create optimized partition layout
System
Active
System/Active
Unknown
Help
Export diagnostic logs...
< Back
Next >
Cancel

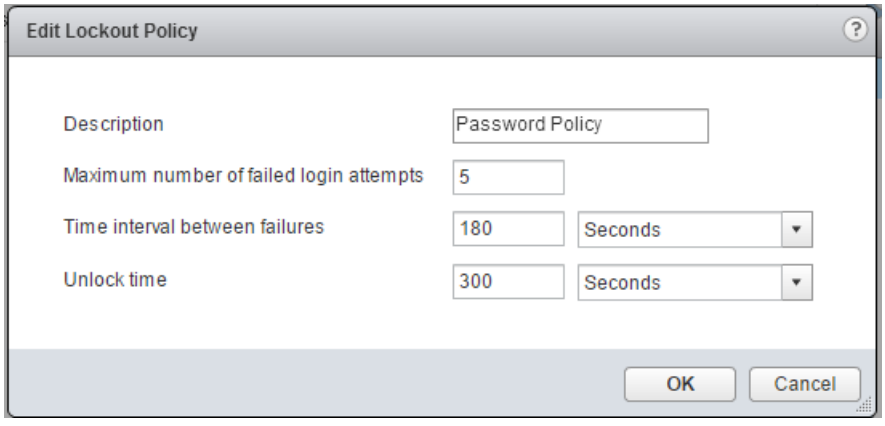

Conversion
Summary
Review the conversion parameters
Source System
Destination System
Destination Virtual Machine
Destination Location
Options
Summary
Source: 192.168.199.15 Destination: ConvertedVM on Resources (VMware vCenter Server 5.5.0)
Source system information
Source type: Powered-on machine
Name/IP address: 192.168.199.15
Connected as: Administrator
OS family: Windows
CPU throttling: None
Network throttling: None
Destination system information
Virtual machine name: ConvertedVM
Hardware version: Version 9
Host/Server: 192.168.199.200
Connected as: LAB\vi-admin
VM folder: Discovered virtual machine
Cluster: Production-Cluster
Resource pool: Resources
Power on after conversion: Yes
Number of vCPUs: 1 (1 sockets * 1 cores)
Physical memory: 2GB
Network: Preserve NIC count
NIC1 Connected
VM Network
Disk controller type: SCSI LSI Logic SAS
Storage: Volume-based cloning
Number of disks: 1
Help
Export diagnostic logs...
< Back
Finish
Cancel

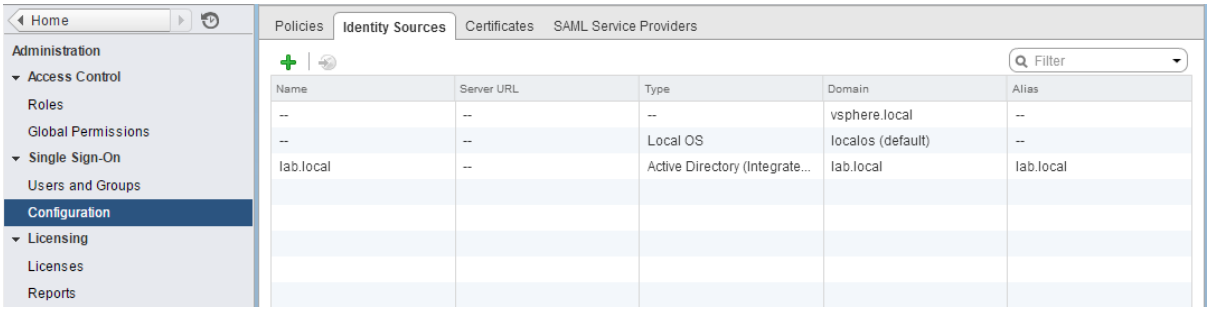

VMware vCenter Converter Standalone - LAB\vi-admin@localhost
File View Task Administration Help
Convert machine
Configure machine
View by: Tasks Show: All tasks in Recent tasks
Task ID
Job ID
Source
Destination
Status
Start time
End time
Owned by
1
1
192.168.199.15
192.168.199.200...
18%
10/28/2013 8:...
Estimated time remain...
LAB\vi-admin

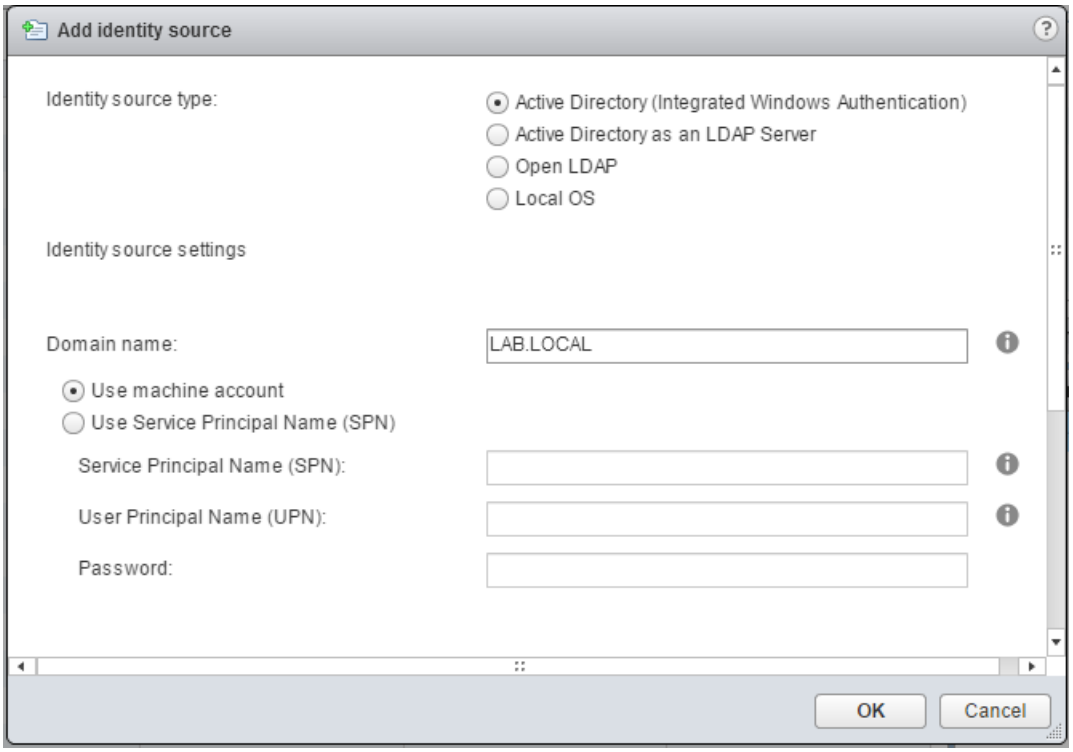
Chapter 10: vSphere Security Design

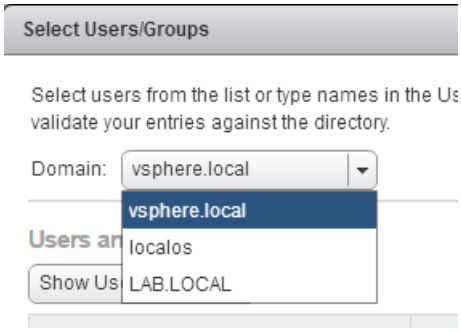


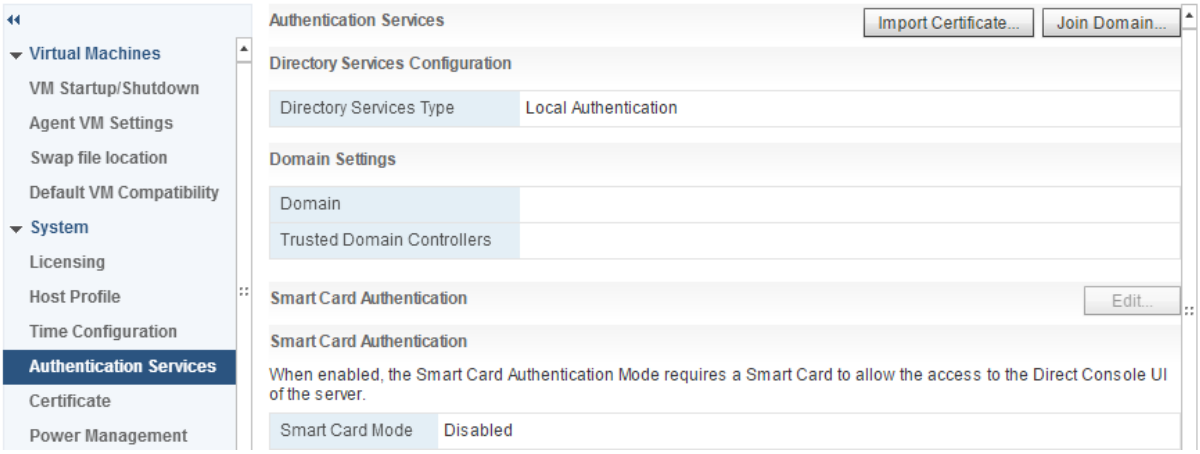

Edit Password Policies
Description
Password Policy
Maximum lifetime
Password must be changed every
90
days
Restrict reuse
Users cannot reuse any previous
5
passwords
Password format requirements
Maximum length
20
Minimum length
8
Character requirements
At least
1
special characters
At least
2
alphabetic characters
At least
1
uppercase characters
At least
1
lowercase characters
At least
1
numeric characters
Identical adjacent Characters
3
OK
Cancel

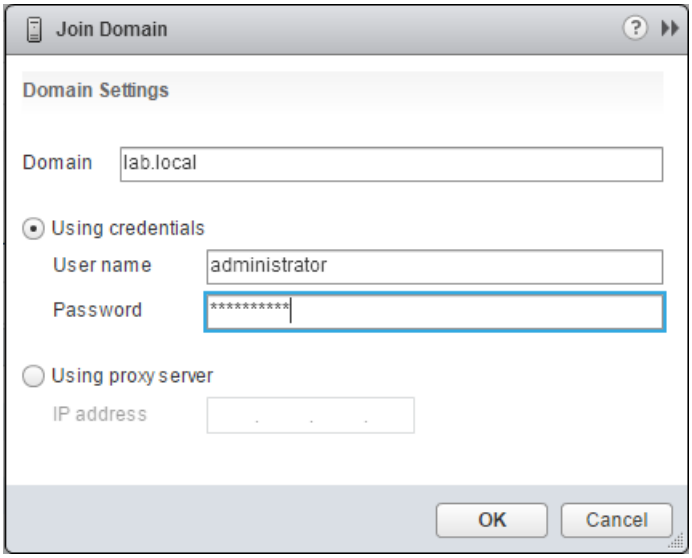

Edit Lockout Policy
Description
Password Policy
Maximum number of failed login attempts
5
Time interval between failures
180
Seconds
Unlock time
300
Seconds
OK
Cancel

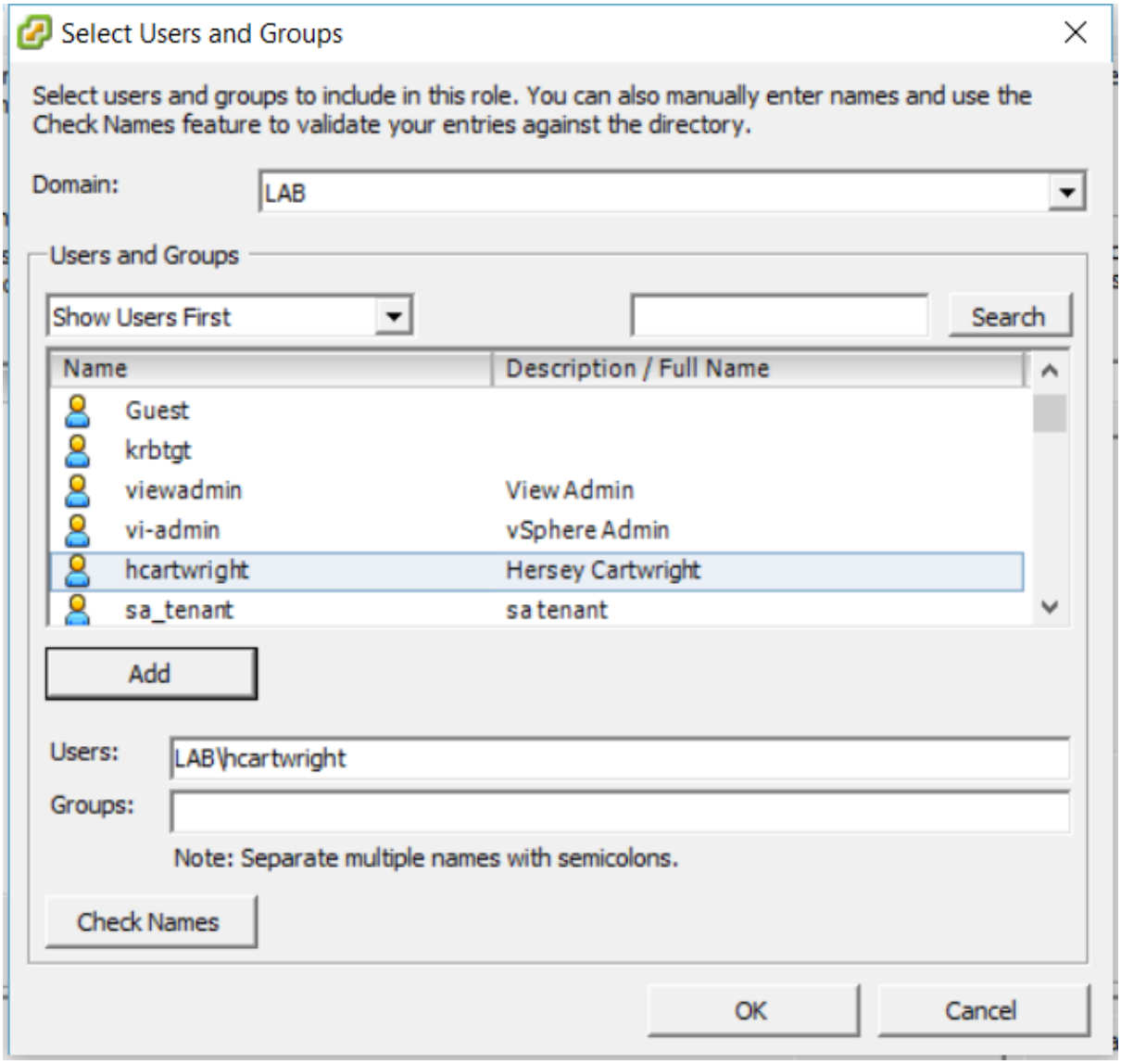

Home
Administration
Access Control
Roles
Global Permissions
Single Sign-On
Users and Groups
Configuration
Licensing
Licenses
Reports
Policies
Identity Sources
Certificates
SAML Service Providers
Filter
Name
Server URL
Type
Domain
Alias
-- -- -- vsphere.local --
-- -- Local OS localos (default) --
lab.local -- Active Directory (Integrate... lab.local lab.local

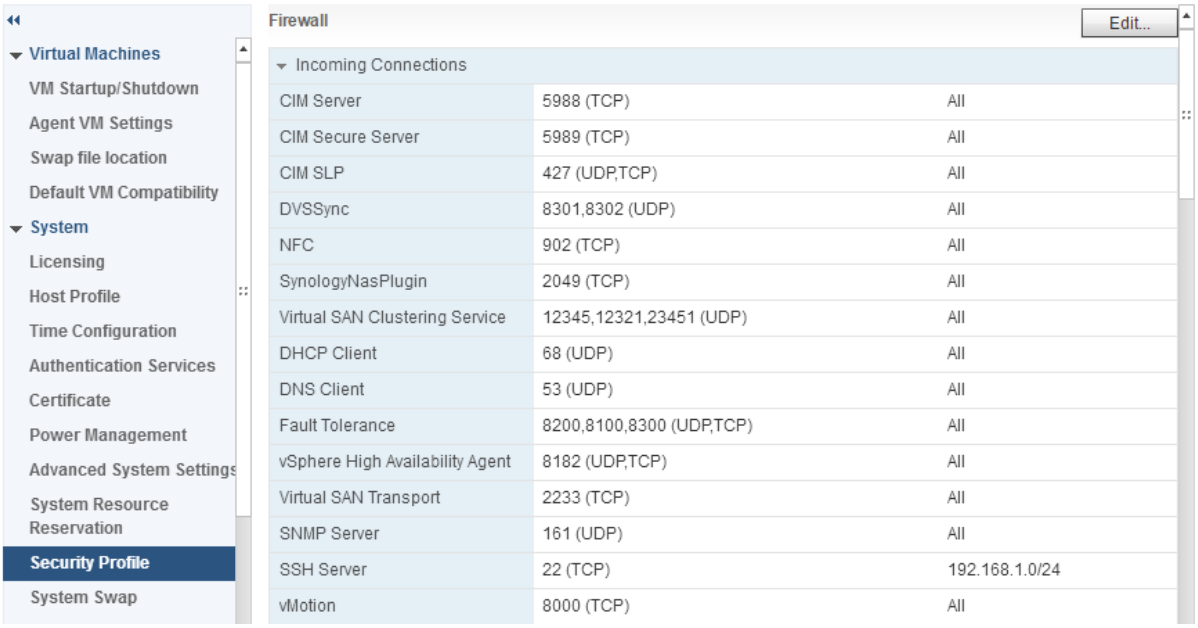

Add identity source
Identity source type:
Active Directory (Integrated Windows Authentication)
Active Directory as an LDAP Server
Open LDAP
Local OS
Identity source settings
Domain name:
LAB.LOCAL
Use machine account
Use Service Principal Name (SPN)
Service Principal Name (SPN):
User Principal Name (UPN):
Password:
OK
Cancel

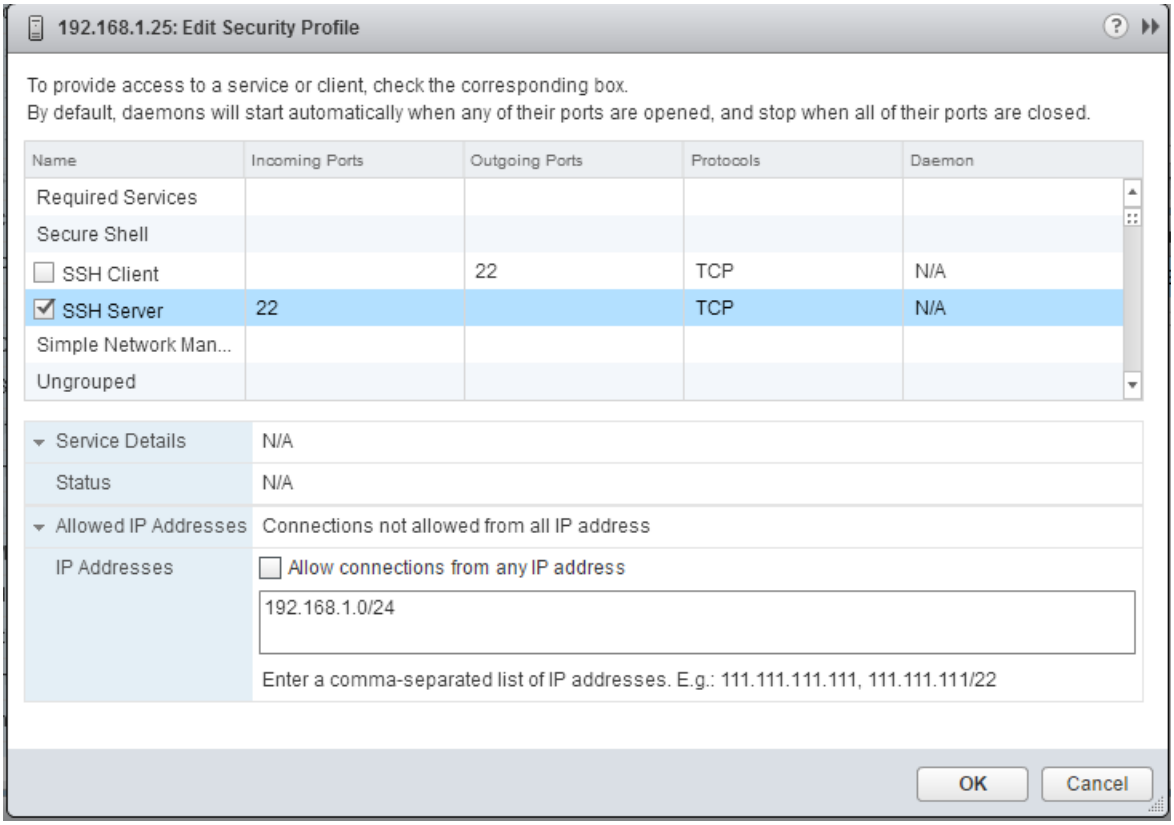

Select Users/Groups
Select users from the list or type names in the Us
validate your entries against the directory.
Domain:
vsphere.local
vsphere.local
localos
LAB.LOCAL
Users ar
Show Us

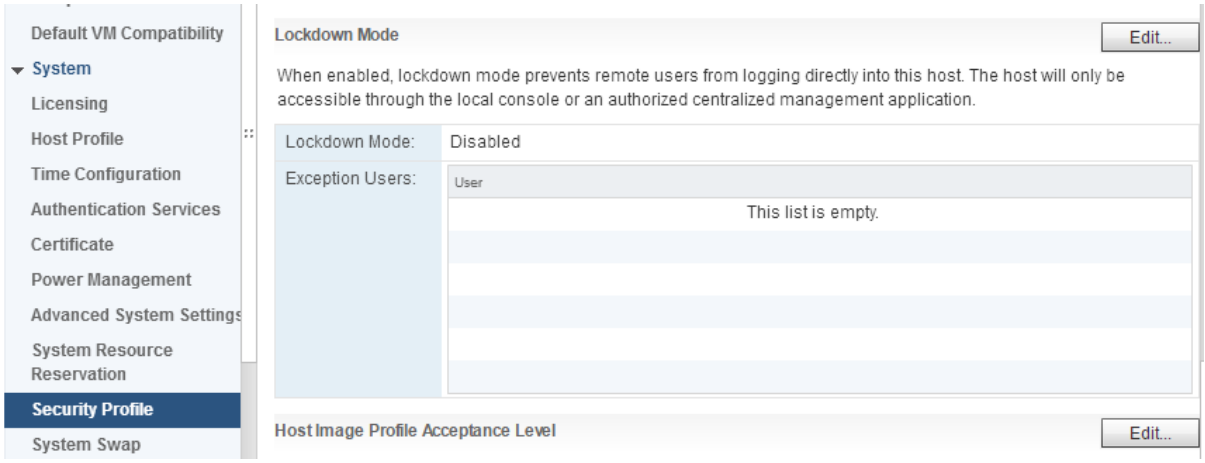

Virtual Machines
VM Startup/Shutdown
Agent VM Settings
Swap file location
Default VM Compatibility
System
Licensing
Host Profile
Time Configuration
Authentication Services
Certificate
Power Management
Authentication Services
Import Certificate...
Join Domain...
Directory Services Configuration
Directory Services Type
Local Authentication
Domain Settings
Domain
Trusted Domain Controllers
Smart Card Authentication
Edit...
Smart Card Authentication
When enabled, the Smart Card Authentication Mode requires a Smart Card to allow the access to the Direct Console UI of the server.
Smart Card Mode
Disabled

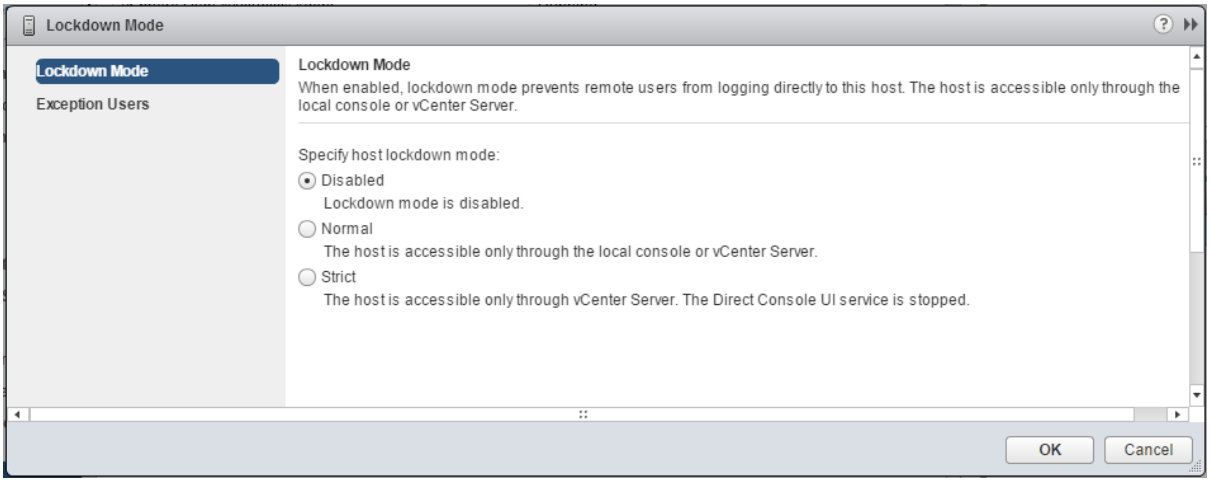

Join Domain
Domain Settings
Domain
lab.local
Using credentials
User name
administrator
Password
****
Using proxy server
IP address
OK
Cancel

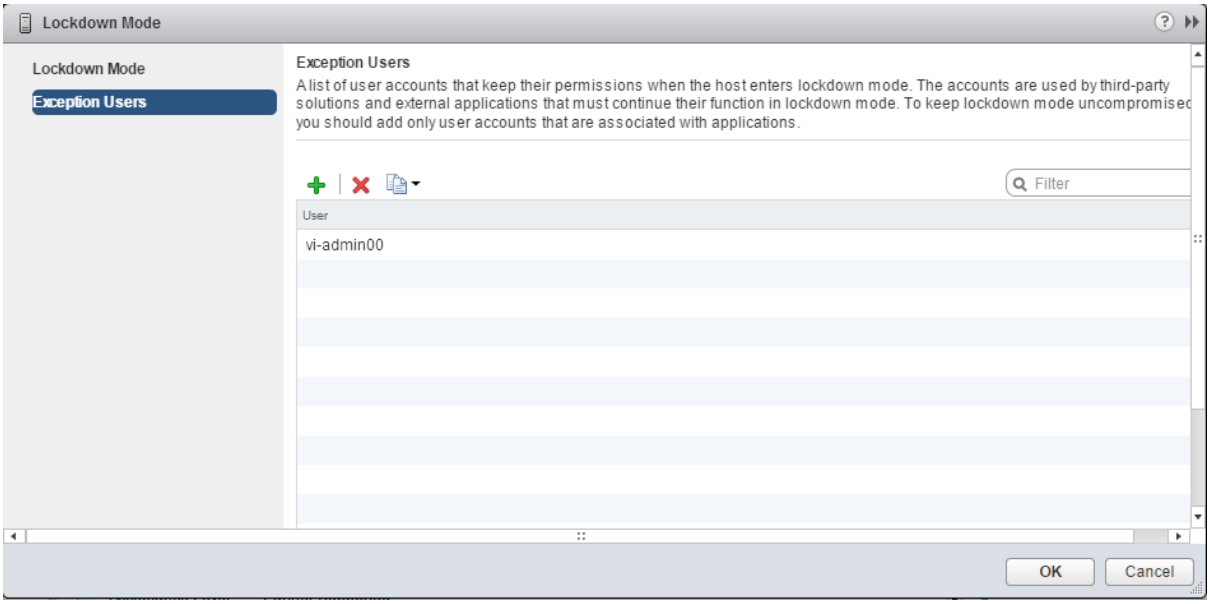

Select Users and Groups
Select users and groups to include in this role. You can also manually enter names and use the Check Names feature to validate your entries against the directory.
Domain:
LAB
Users and Groups
Show Users First
Search
Name
Description / Full Name
Guest
krbtgt
viewadmin
View Admin
vi-admin
vSphere Admin
hcartwright
Hersey Cartwright
sa_tenant
sa tenant
Add
Users:
LAB\hcartwright
Groups:
Note: Separate multiple names with semicolons.
Check Names
OK
Cancel

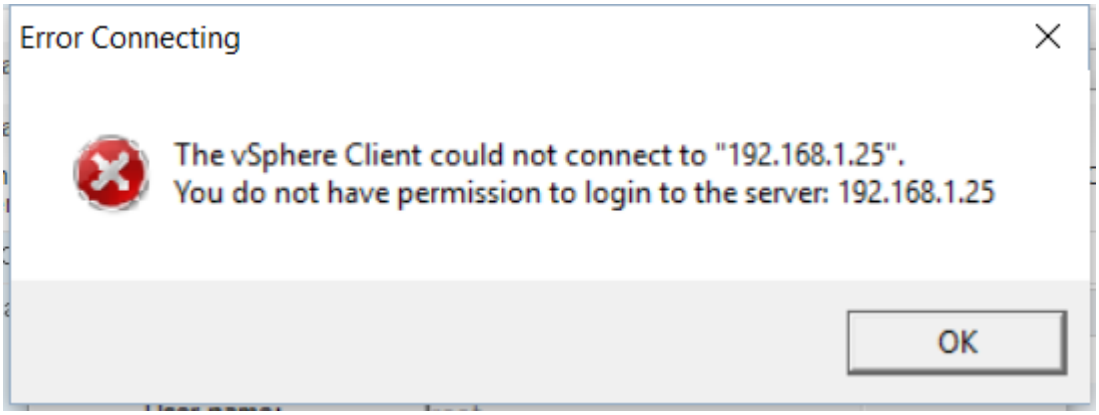

Virtual Machines
VM Startup/Shutdown
Agent VM Settings
Swap file location
Default VM Compatibility
System
Licensing
Host Profile
Time Configuration
Authentication Services
Certificate
Power Management
Advanced System Settings
System Resource Reservation
Security Profile
System Swap
Firewall
Edit...
Incoming Connections
CIM Server 5988 (TCP) All
CIM Secure Server 5989 (TCP) All
CIM SLP 427 (UDP,TCP) All
DVSSync 8301,8302 (UDP) All
NFC 902 (TCP) All
SynologyNasPlugin 2049 (TCP) All
Virtual SAN Clustering Service 12345,12321,23451 (UDP) All
DHCP Client 68 (UDP) All
DNS Client 53 (UDP) All
Fault Tolerance 8200,8100,8300 (UDP,TCP) All
vSphere High Availability Agent 8182 (UDP,TCP) All
Virtual SAN Transport 2233 (TCP) All
SNMP Server 161 (UDP) All
SSH Server 22 (TCP) 192.168.1.0/24
vMotion 8000 (TCP) All

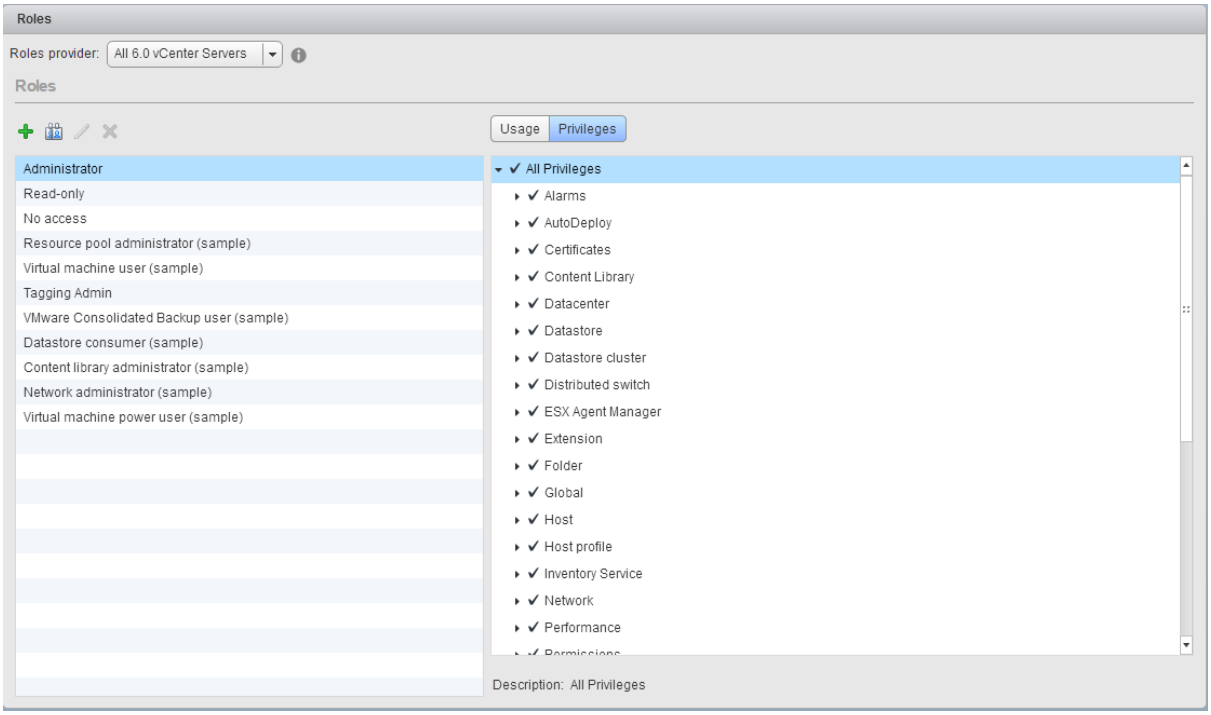

192.168.1.25: Edit Security Profile
To provide access to a service or client, check the corresponding box.
By default, daemons will start automatically when any of their ports are opened, and stop when all of their ports are closed.
Name
Incoming Ports
Outgoing Ports
Protocols
Daemon
Required Services
Secure Shell
SSH Client
22
TCP
N/A
SSH Server
22
TCP
N/A
Simple Network Man...
Ungrouped
Service Details
N/A
Status
N/A
Allowed IP Addresses
Connections not allowed from all IP address
IP Addresses
Allow connections from any IP address
192.168.1.0/24
Enter a comma-separated list of IP addresses. E.g.: 111.111.111.111, 111.111.111/22
OK
Cancel

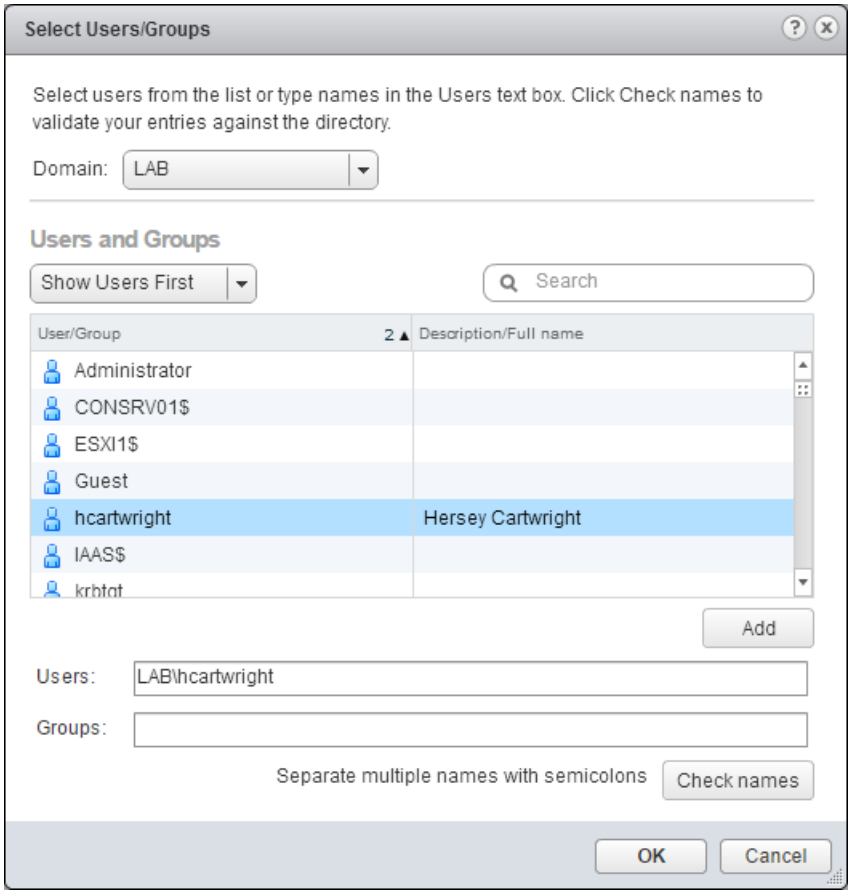

Default VM Compatibility
System
Licensing
Host Profile
Time Configuration
Authentication Services
Certificate
Power Management
Advanced System Settings
System Resource Reservation
Security Profile
System Swap
Lockdown Mode
Edit...
When enabled, lockdown mode prevents remote users from logging directly into this host. The host will only be accessible through the local console or an authorized centralized management application.
Lockdown Mode:
Disabled
Exception Users:
User
This list is empty.
Host Image Profile Acceptance Level
Edit...

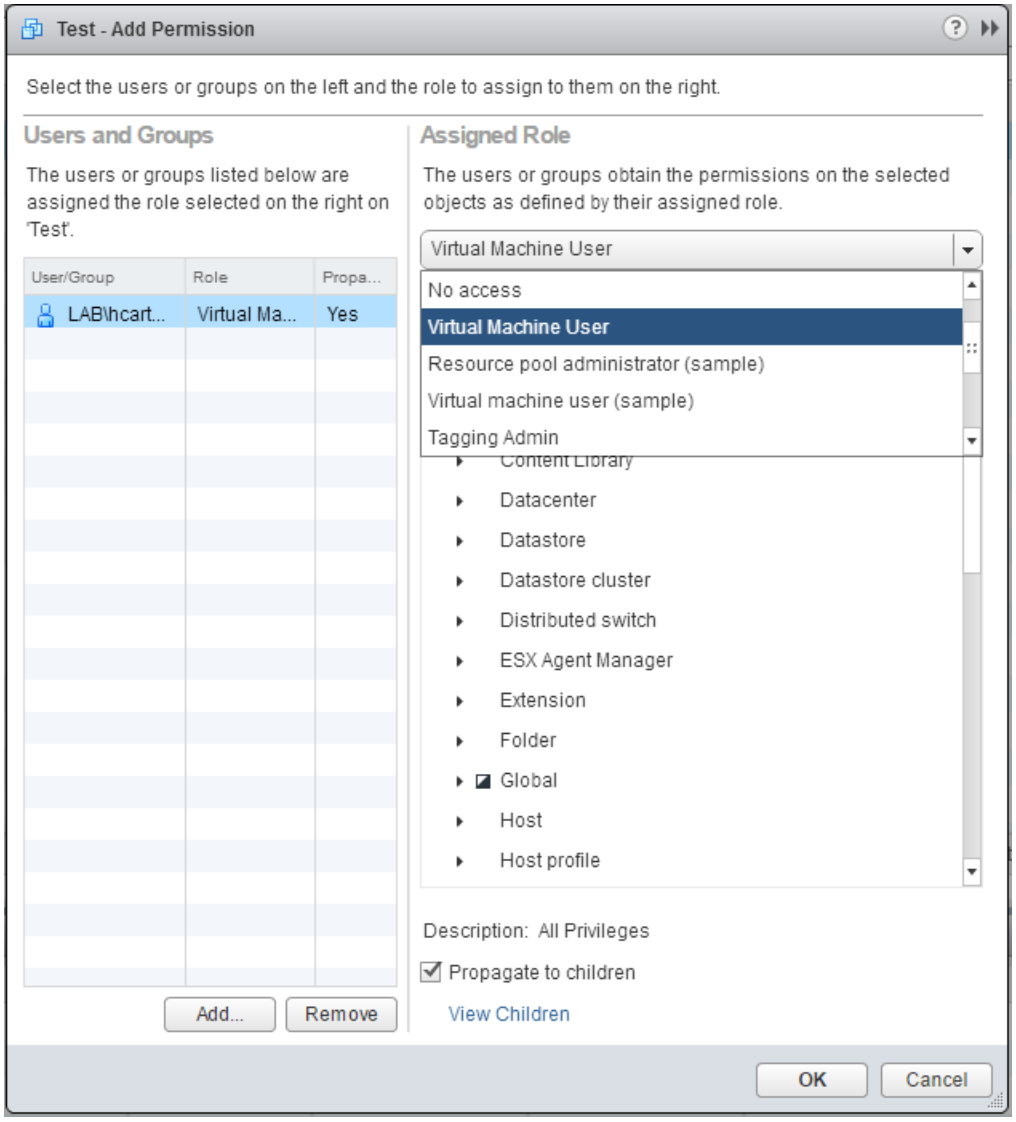

Lockdown Mode
Lockdown Mode
Exception Users
Lockdown Mode
When enabled, lockdown mode prevents remote users from logging directly to this host. The host is accessible only through the local console or vCenter Server.
Specify host lockdown mode:
Disabled
Lockdown mode is disabled.
Normal
The host is accessible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

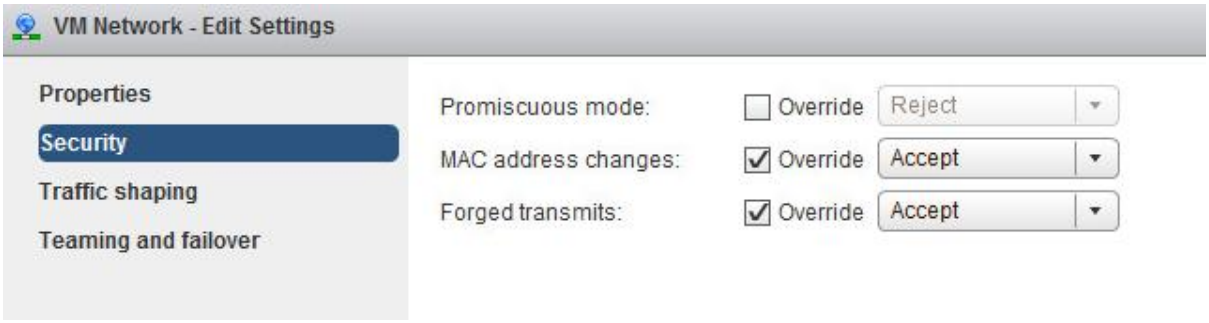

Lockdown Mode
Lockdown Mode
Exception Users
Exception Users
A list of user accounts that keep their permissions when the host enters lockdown mode. The accounts are used by third-party solutions and external applications that must continue their function in lockdown mode. To keep lockdown mode uncompromised you should add only user accounts that are associated with applications.
Filter
User
vi-admin00
OK
Cancel


Error Connecting
The vSphere Client could not connect to "192.168.1.25".
You do not have permission to login to the server: 192.168.1.25
OK


Roles
Roles provider: All 6.0 vCenter Servers
Roles
Usage
Privileges
Administrator
Read-only
No access
Resource pool administrator (sample)
Virtual machine user (sample)
Tagging Admin
VMware Consolidated Backup user (sample)
Datastore consumer (sample)
Content library administrator (sample)
Network administrator (sample)
Virtual machine power user (sample)
All Privileges
Alarms
AutoDeploy
Certificates
Content Library
Datacenter
Datastore
Datastore cluster
Distributed switch
ESX Agent Manager
Extension
Folder
Global
Host
Host profile
Inventory Service
Network
Performance
Description: All Privileges


Select Users/Groups
Select users from the list or type names in the Users text box. Click Check names to validate your entries against the directory.
Domain: LAB
Users and Groups
Show Users First
Search
User/Group
2
Description/Full name
Administrator
CONSRV01$
ESXI1$
Guest
hcartwright
Hersey Cartwright
IAAS$
krbtgt
Add
Users: LAB\hcartwright
Groups:
Separate multiple names with semicolons
Check names
OK
Cancel

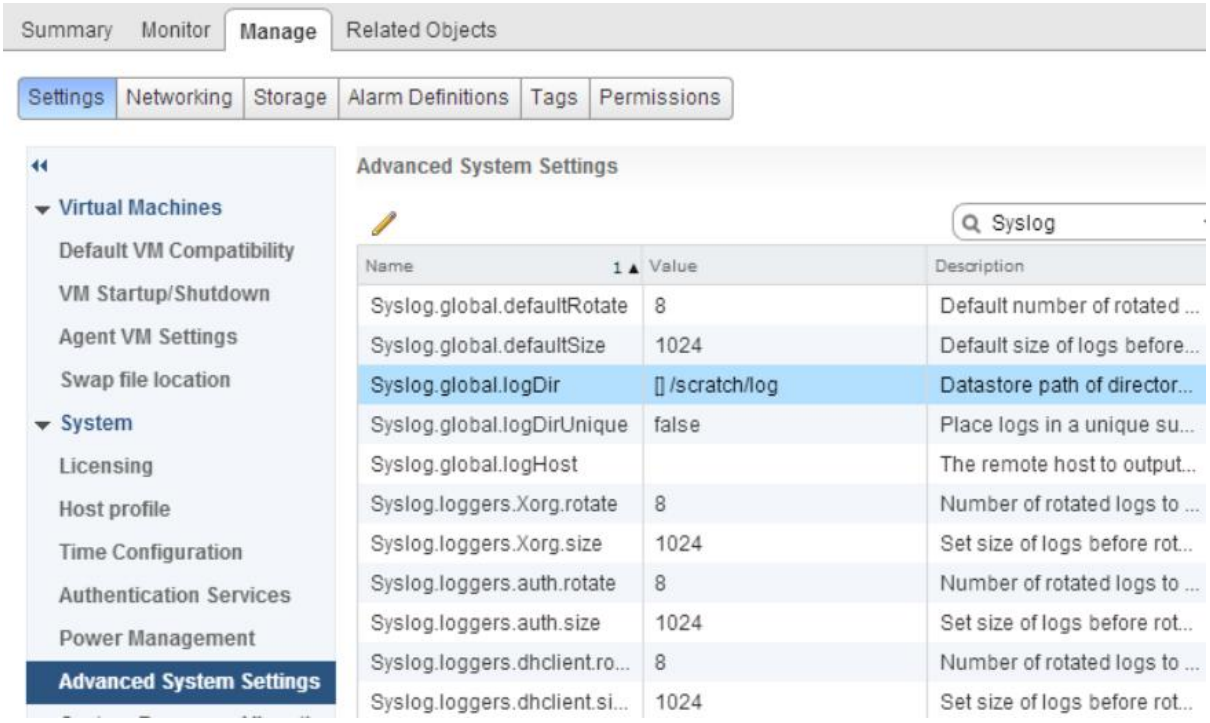

Test - Add Permission
Select the users or groups on the left and the role to assign to them on the right.
Users and Groups
The users or groups listed below are assigned the role selected on the right on 'Test'.
User/Group
Role
Propa...
LAB\hcart...
Virtual Ma...
Yes
Add...
Remove
Assigned Role
The users or groups obtain the permissions on the selected objects as defined by their assigned role.
Virtual Machine User
No access
Virtual Machine User
Resource pool administrator (sample)
Virtual machine user (sample)
Tagging Admin
Content Library
Datacenter
Datastore
Datastore cluster
Distributed switch
ESX Agent Manager
Extension
Folder
Global
Host
Host profile
Description: All Privileges
Propagate to children
View Children
OK
Cancel

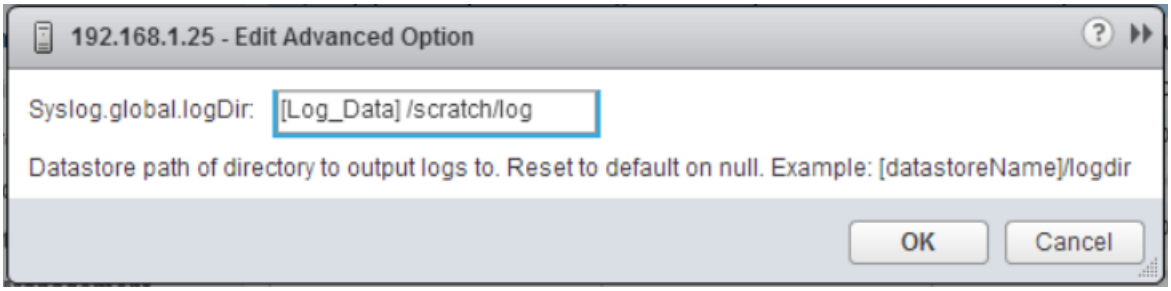


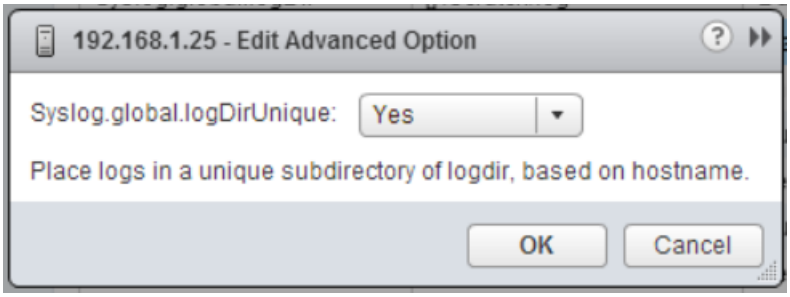
Guideline ID	Risk Profile	Description	Vulnerability Discussion	Configuratio
VM.disable-unexposed-features-autologon	1	Disable certain unexposed features	Some VMX parameters don't apply on vSphere because VMware virtual machines work on both vSphere and hosted virtualization platforms such as Workstation and Fusion. Explicitly disabling these features reduces the potential for vulnerabilities because it reduces the number of ways in which a guest can affect the host.	isolation.tool
VM.disable-unexposed-features-biosbbs	1	Disable certain unexposed features	Some VMX parameters don't apply on vSphere because VMware virtual machines work on vSphere and hosted virtualization platforms such as Workstation and Fusion. Explicitly disabling these features reduces the potential for vulnerabilities because it reduces the number of ways in which a guest can affect the host.	isolation.bios
VM.disable-unexposed-features-getcreds	1	Disable certain unexposed features	Some VMX parameters don't apply on vSphere because VMware virtual machines work on vSphere and hosted virtualization platforms such as Workstation and Fusion. Explicitly disabling these features reduces the potential for vulnerabilities because it reduces the number of ways in which a guest can affect the host.	isolation.tool

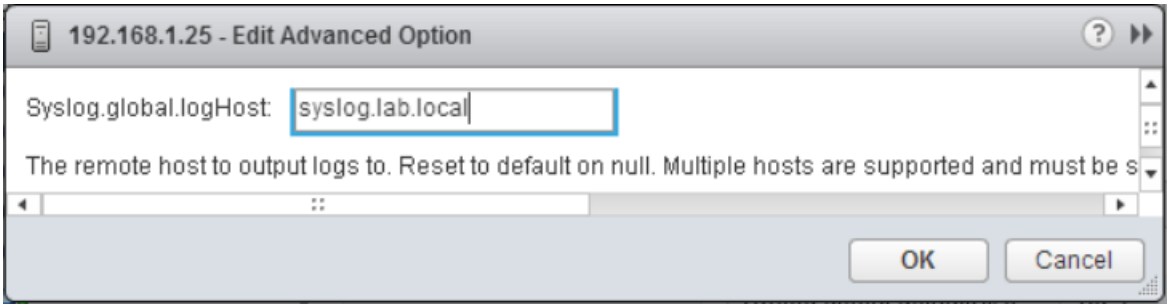
Chapter 11: Disaster Recovery and Business Continuity

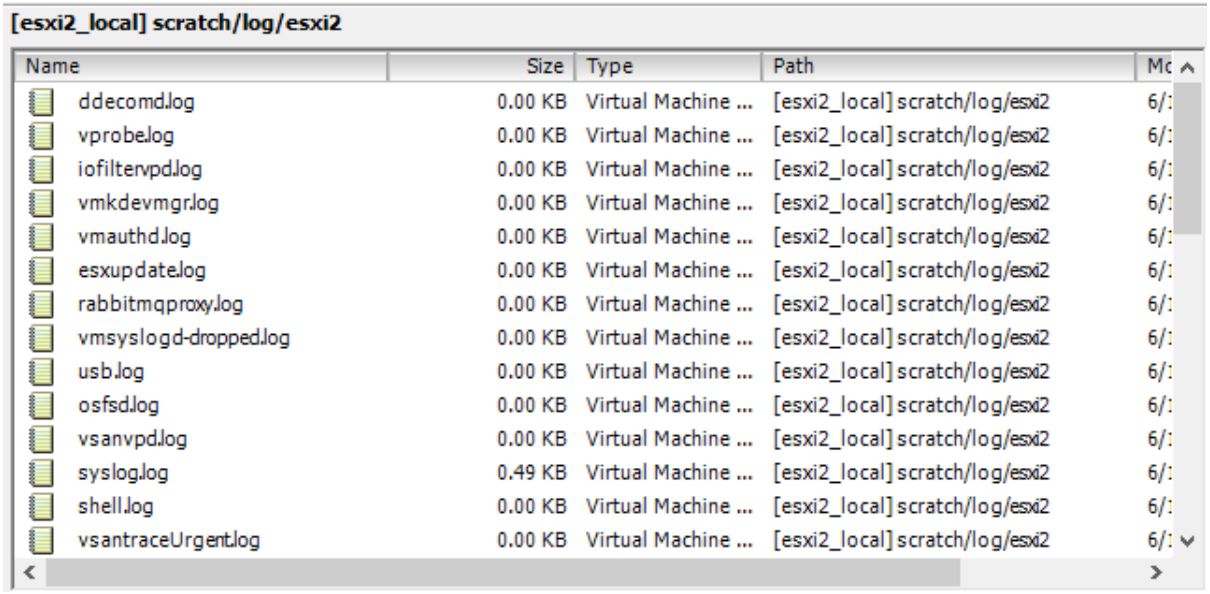
```
PowerCLI C:\>
PowerCLI C:\>
PowerCLI C:\> Get-VMHostFirmware -vmhost 192.168.1.25 -BackupConfiguration -Dest
inationPath C:\Temp\

Host            Data
----            ----
192.168.1.25    C:\Temp\configBundle-192.168.1.25.tgz


PowerCLI C:\>
```

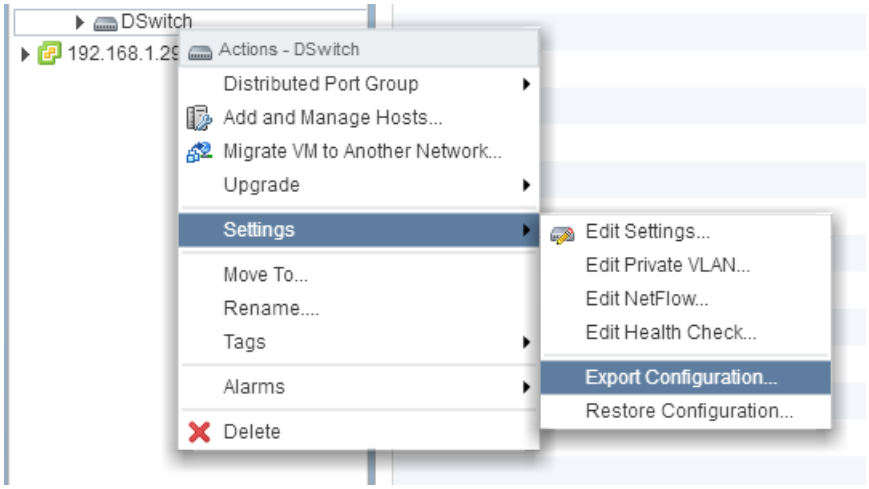


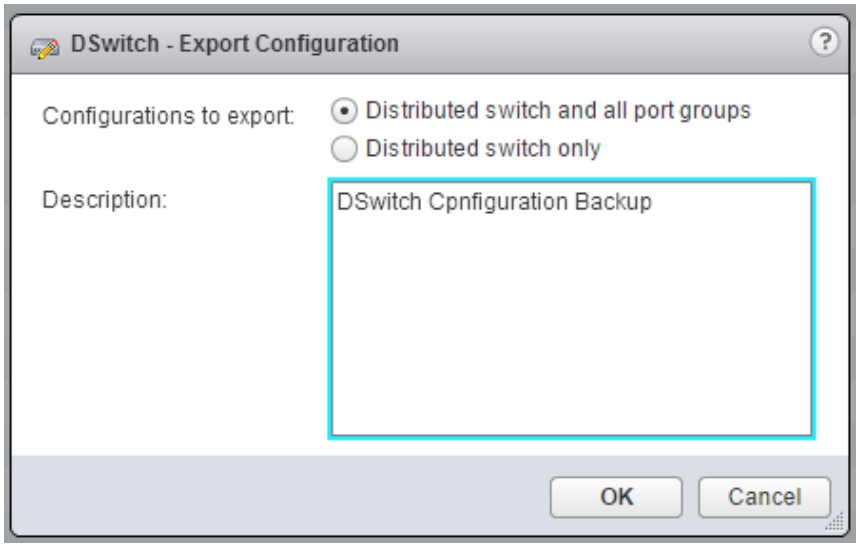

192.168.1.25 - Edit Advanced Option
Syslog.global.logDir:
[Log_Data] /scratch/log
Datastore path of directory to output logs to. Reset to default on null. Example: [datastoreName]/logdir
OK
Cancel

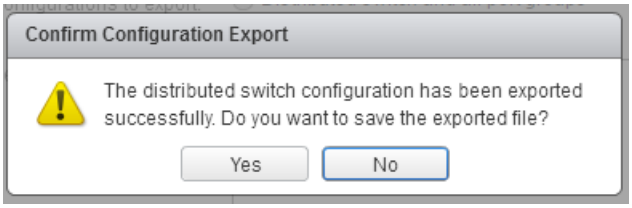

192.168.1.25 - Edit Advanced Option
Syslog.global.logDirUnique:
Yes
Place logs in a unique subdirectory of logdir, based on hostname.
OK
Cancel

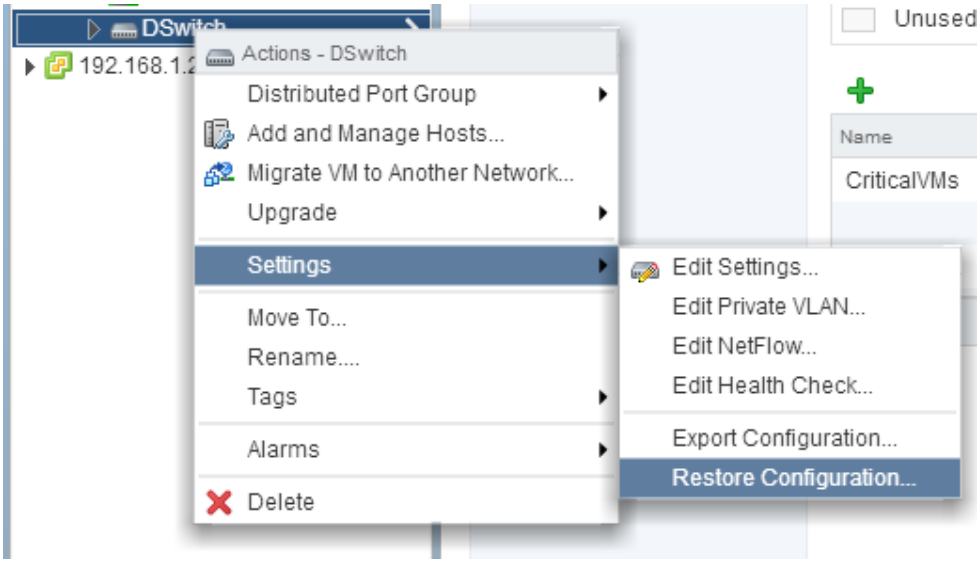

192.168.1.25 - Edit Advanced Option
Syslog.global.logHost:
syslog.lab.local
The remote host to output logs to. Reset to default on null. Multiple hosts are supported and must be s
OK
Cancel

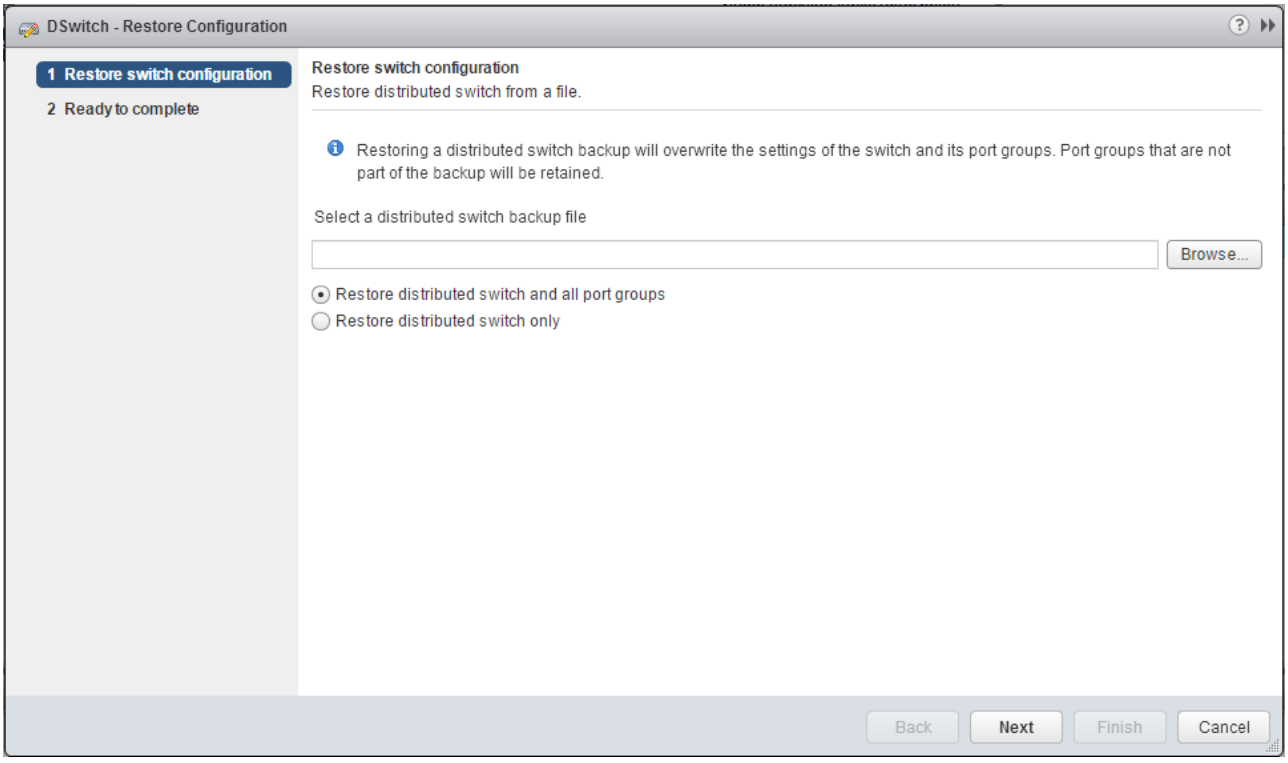

[esxi2_local] scratch/log/esxi2
Name
Size
Type
Path
Mc
ddecomd.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
vprobe.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
iofiltervpd.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
vmkdevmgr.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
vmauthd.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
esxupdate.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
rabbitmqproxy.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
vmsyslogd-dropped.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
usb.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
osfsd.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
vsanvpd.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
syslog.log 0.49 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
shell.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:
vsantraceUrgent.log 0.00 KB Virtual Machine ... [esxi2_local] scratch/log/esxi2 6/:

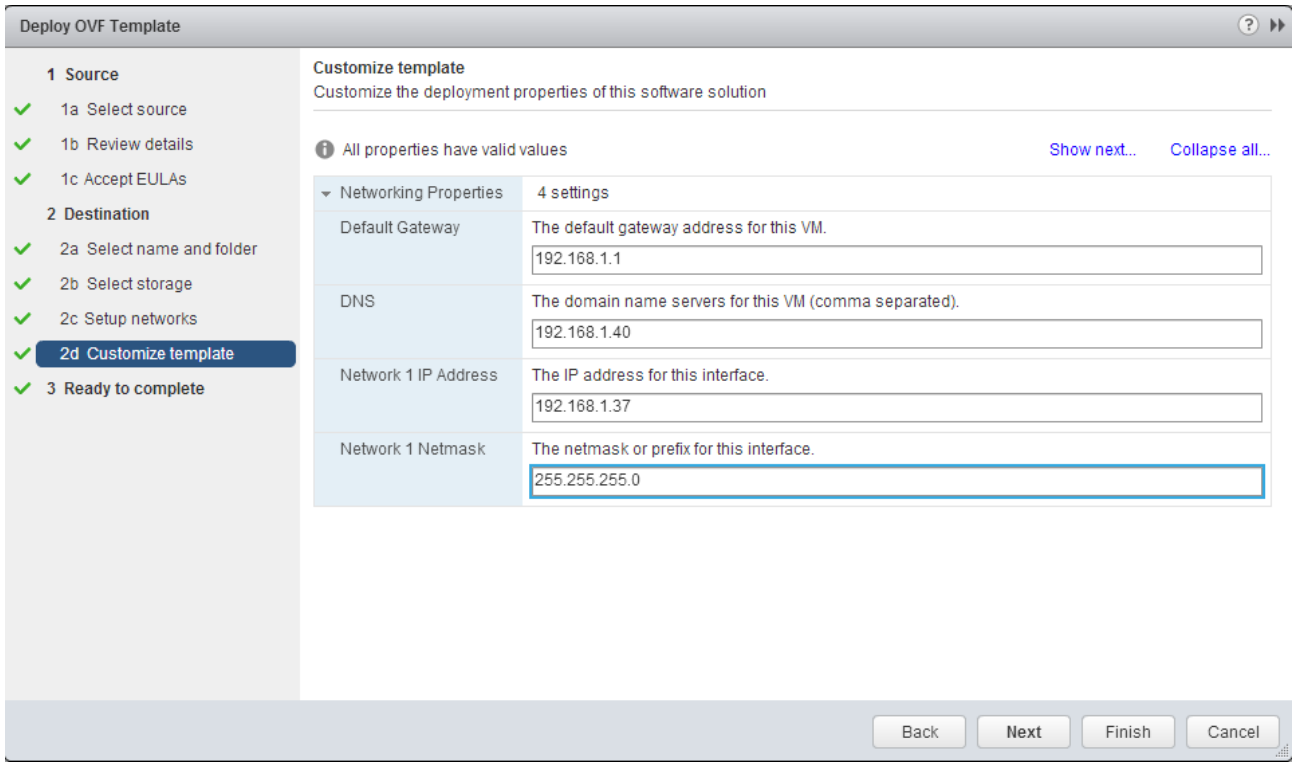

DSwitch
192.168.1.29
Actions - DSwitch
Distributed Port Group
Add and Manage Hosts...
Migrate VM to Another Network...
Upgrade
Settings
Move To...
Rename...
Tags
Alarms
Delete
Edit Settings...
Edit Private VLAN...
Edit NetFlow...
Edit Health Check...
Export Configuration...
Restore Configuration...

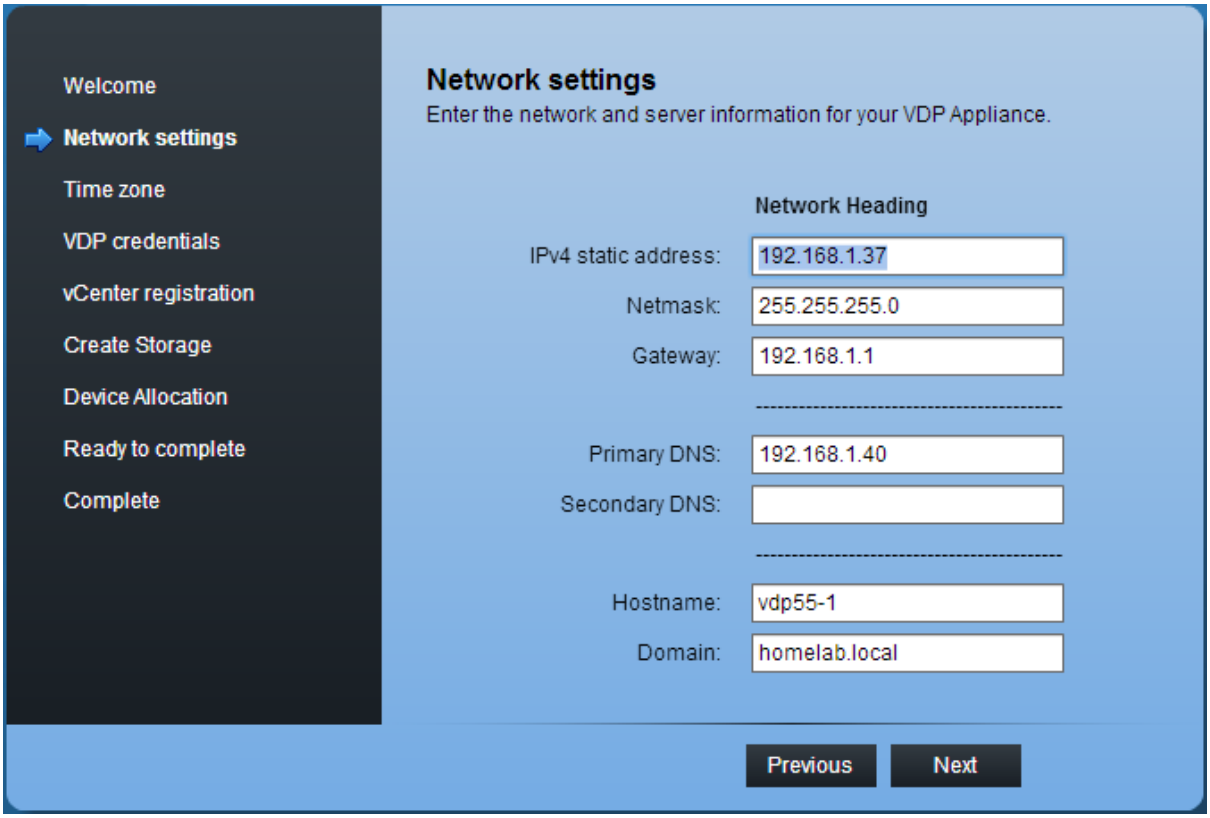

DSwitch - Export Configuration
Configurations to export:
Distributed switch and all port groups
Distributed switch only
Description:
DSwitch Cpnfiguration Backup
OK
Cancel

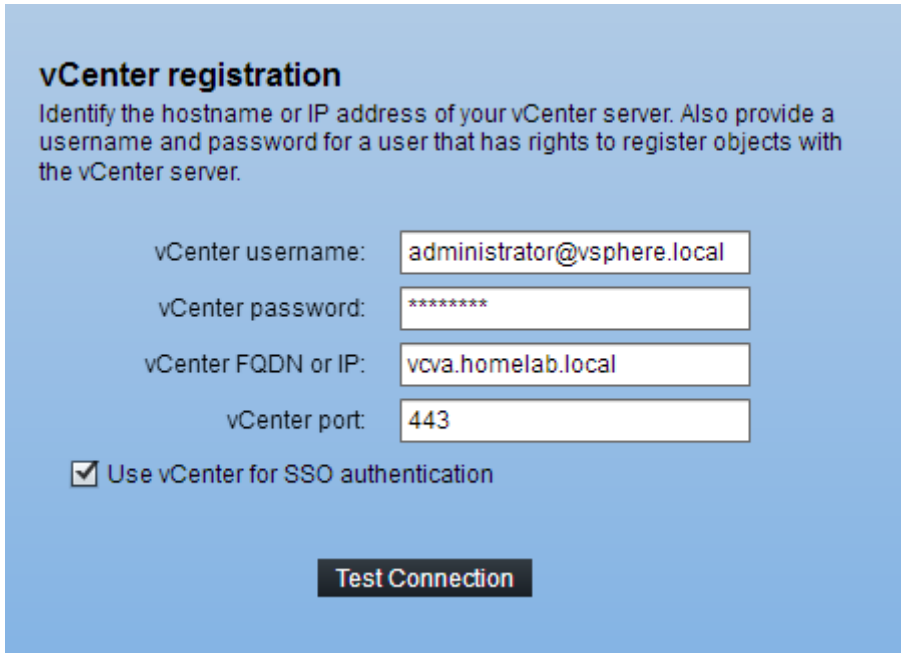

Confirm Configuration Export
The distributed switch configuration has been exported successfully. Do you want to save the exported file?
Yes
No

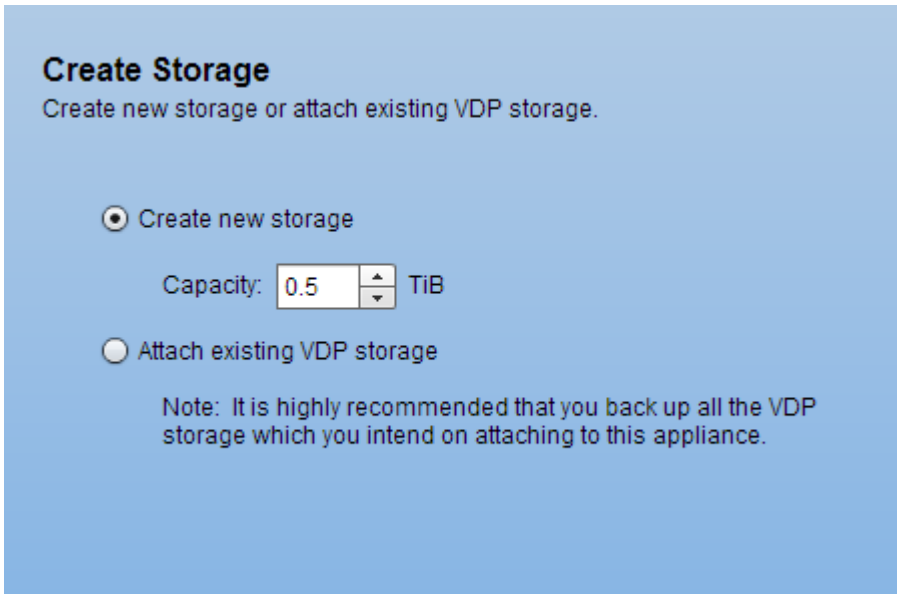

DSwitch
192.168.1.2
Actions - DSwitch
Distributed Port Group
Add and Manage Hosts...
Migrate VM to Another Network...
Upgrade
Settings
Move To...
Rename....
Tags
Alarms
Delete
Edit Settings...
Edit Private VLAN...
Edit NetFlow...
Edit Health Check...
Export Configuration...
Restore Configuration...
Unused
Name
CriticalVMs

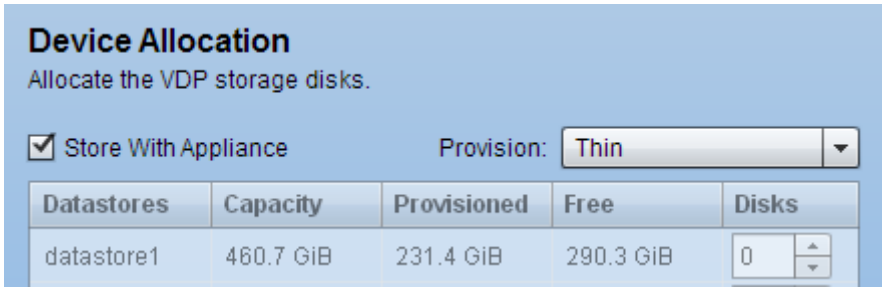

DSwitch - Restore Configuration
1 Restore switch configuration
2 Ready to complete
Restore switch configuration
Restore distributed switch from a file.
Restoring a distributed switch backup will overwrite the settings of the switch and its port groups. Port groups that are not part of the backup will be retained.
Select a distributed switch backup file
Browse...
Restore distributed switch and all port groups
Restore distributed switch only
Back
Next
Finish
Cancel

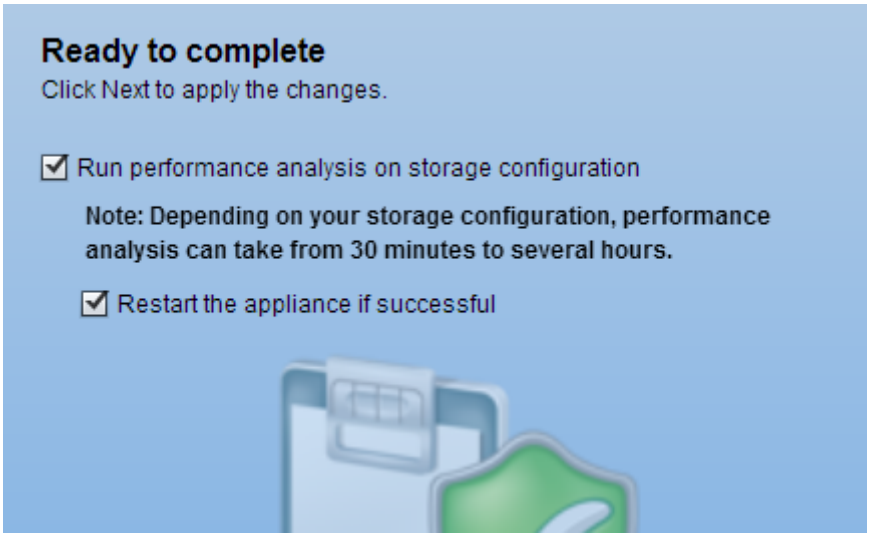

Deploy OVF Template
1 Source
1a Select source
1b Review details
1c Accept EULAs
2 Destination
2a Select name and folder
2b Select storage
2c Setup networks
2d Customize template
3 Ready to complete
Customize template
Customize the deployment properties of this software solution
All properties have valid values
Show next...
Collapse all...
Networking Properties
4 settings
Default Gateway
The default gateway address for this VM.
192.168.1.1
DNS
The domain name servers for this VM (comma separated).
192.168.1.40
Network 1 IP Address
The IP address for this interface.
192.168.1.37
Network 1 Netmask
The netmask or prefix for this interface.
255.255.255.0
Back
Next
Finish
Cancel

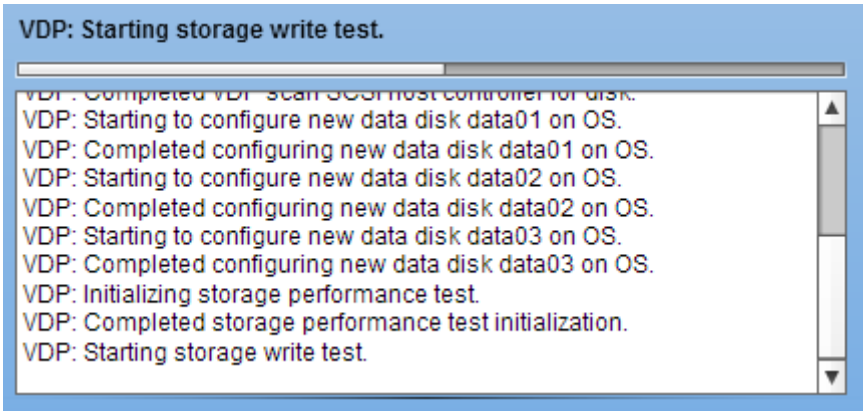

Welcome
Network settings
Time zone
VDP credentials
vCenter registration
Create Storage
Device Allocation
Ready to complete
Complete
Network settings
Enter the network and server information for your VDP Appliance.
Network Heading
IPv4 static address:
192.168.1.37
Netmask:
255.255.255.0
Gateway:
192.168.1.1
Primary DNS:
192.168.1.40
Secondary DNS:
Hostname:
vdp55-1
Domain:
homelab.local
Previous
Next

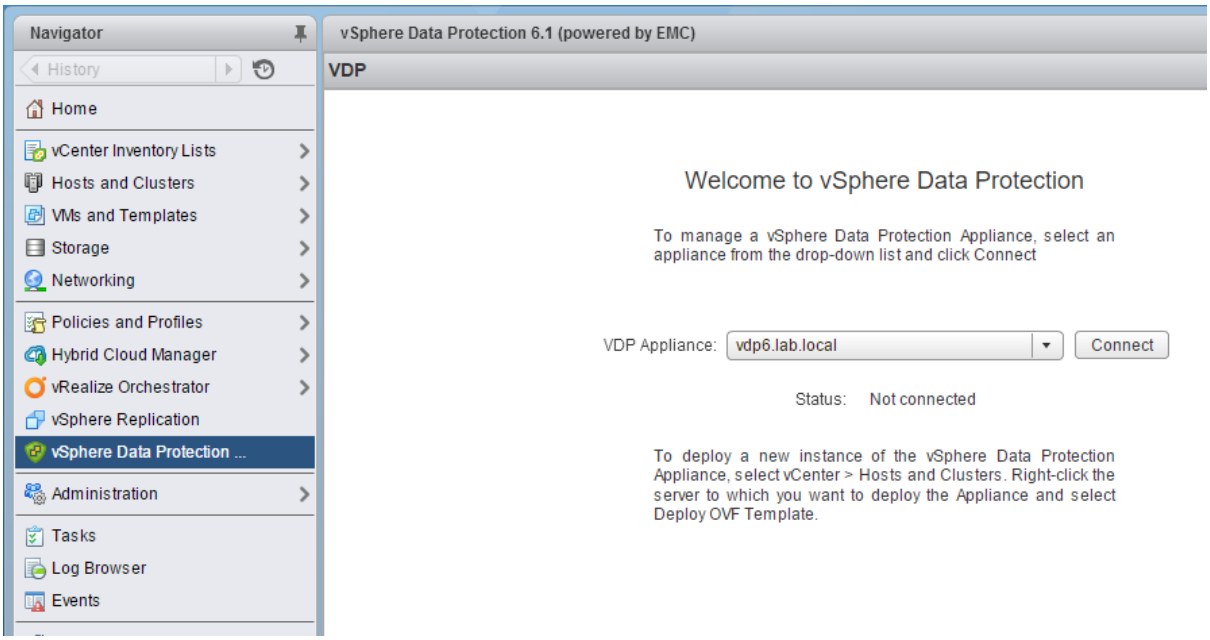

vCenter registration
Identify the hostname or IP address of your vCenter server. Also provide a username and password for a user that has rights to register objects with the vCenter server.
vCenter username:
administrator@vsphere.local
vCenter password:
****
vCenter FQDN or IP:
vcva.homelab.local
vCenter port:
443
Use vCenter for SSO authentication
Test Connection

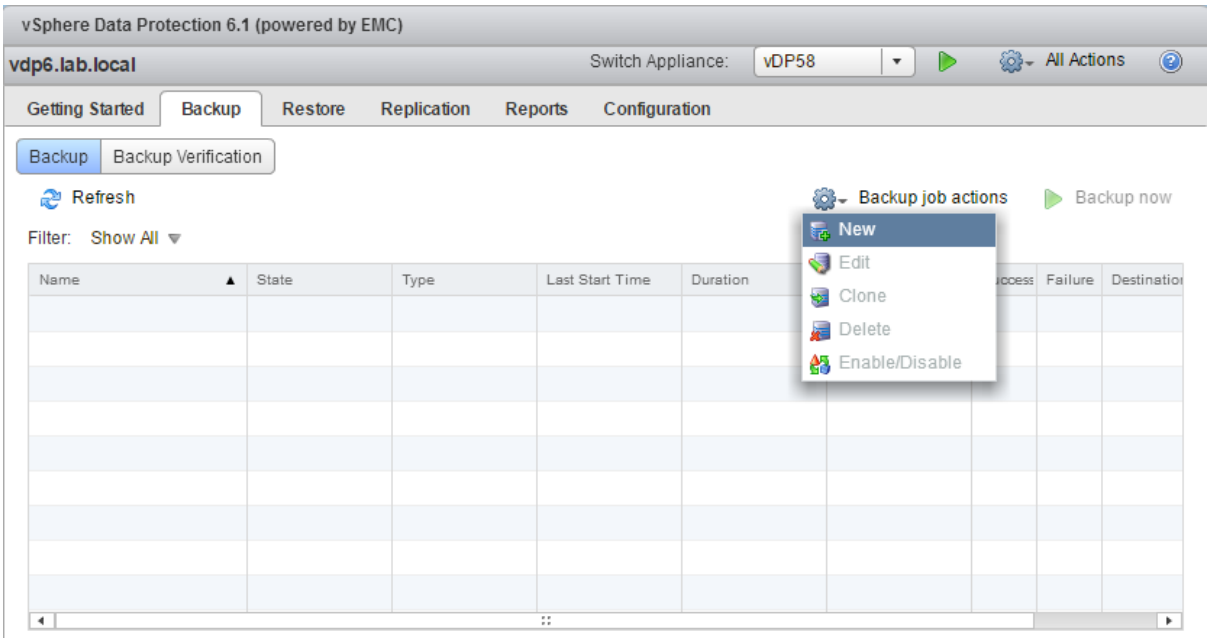

Create Storage
Create new storage or attach existing VDP storage.
Create new storage
Capacity:
0.5
TiB
Attach existing VDP storage
Note: It is highly recommended that you back up all the VDP storage which you intend on attaching to this appliance.

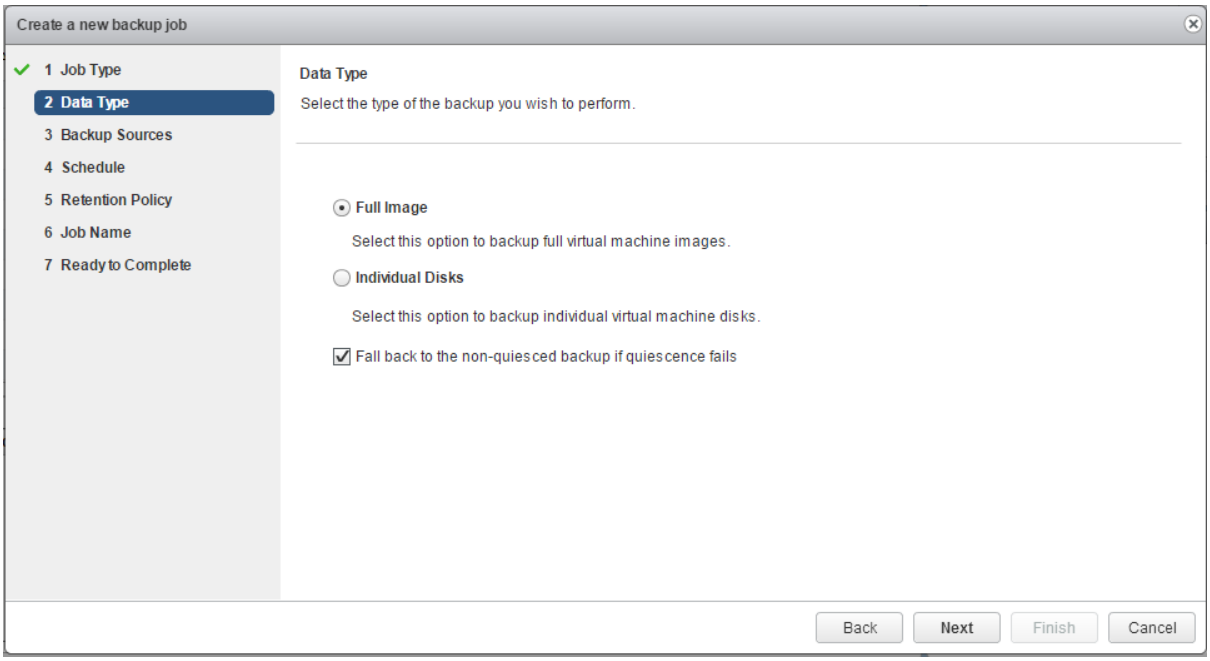

Device Allocation
Allocate the VDP storage disks.
Store With Appliance
Provision:
Thin
Datastores
Capacity
Provisioned
Free
Disks
datastore1
460.7 GiB
231.4 GiB
290.3 GiB
0

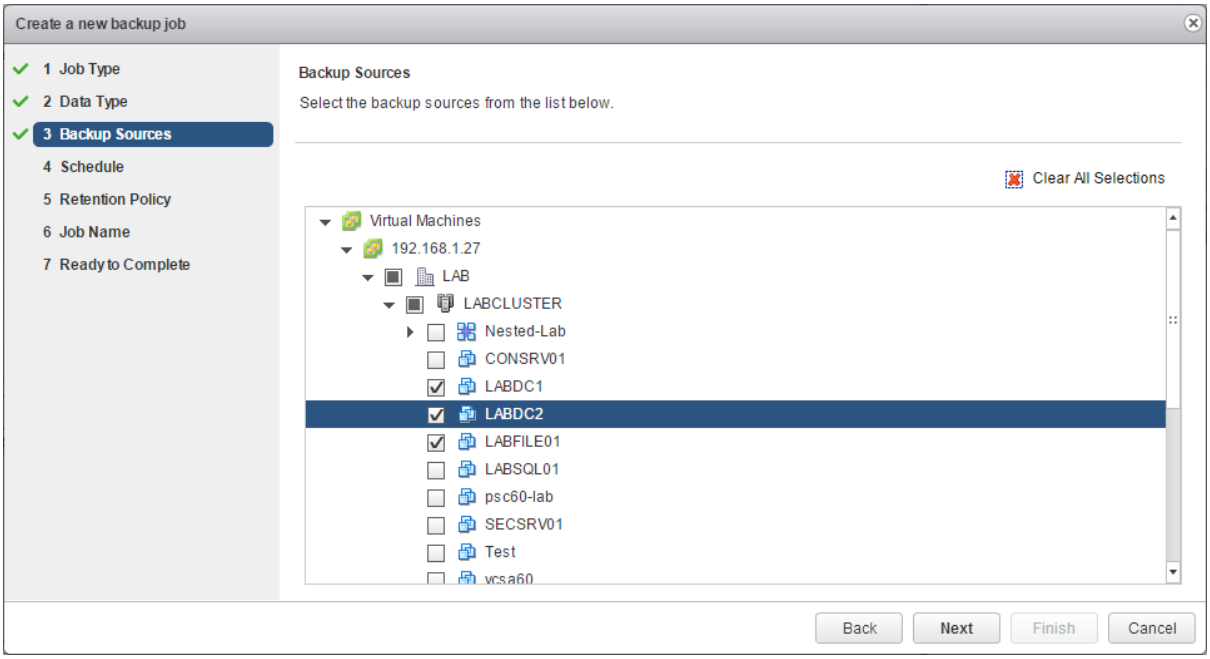

Ready to complete
Click Next to apply the changes.
Run performance analysis on storage configuration
Note: Depending on your storage configuration, performance analysis can take from 30 minutes to several hours.
Restart the appliance if successful

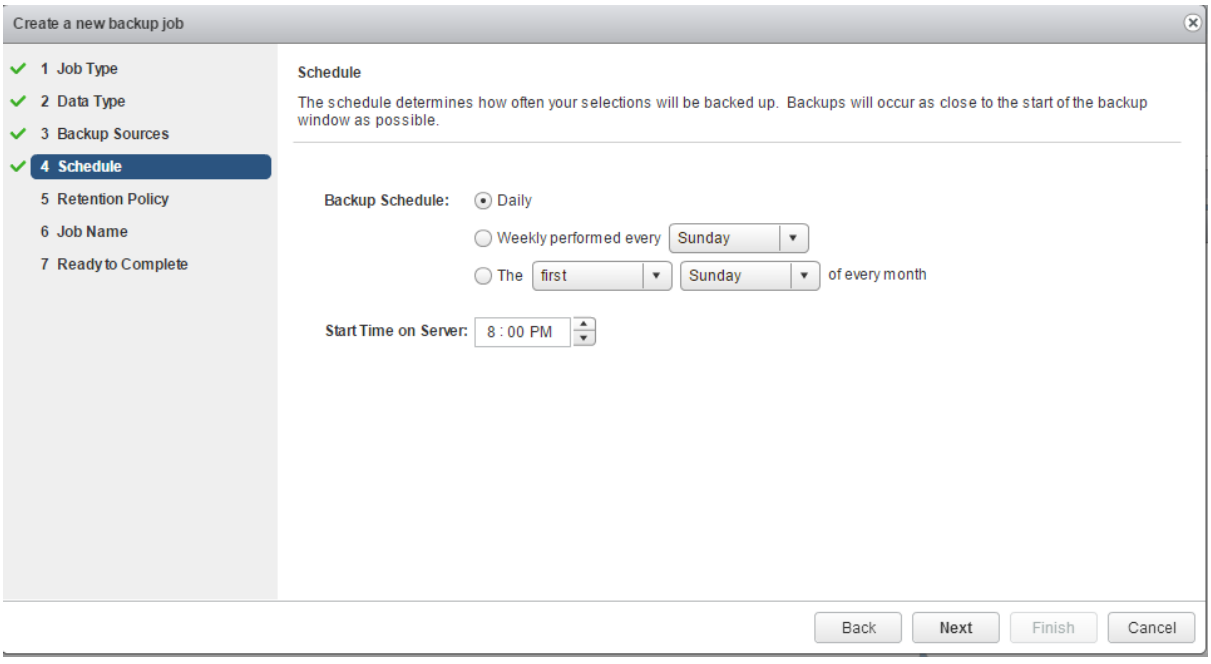

VDP: Starting storage write test.
VDP: Starting to configure new data disk data01 on OS.
VDP: Completed configuring new data disk data01 on OS.
VDP: Starting to configure new data disk data02 on OS.
VDP: Completed configuring new data disk data02 on OS.
VDP: Starting to configure new data disk data03 on OS.
VDP: Completed configuring new data disk data03 on OS.
VDP: Initializing storage performance test.
VDP: Completed storage performance test initialization.
VDP: Starting storage write test.

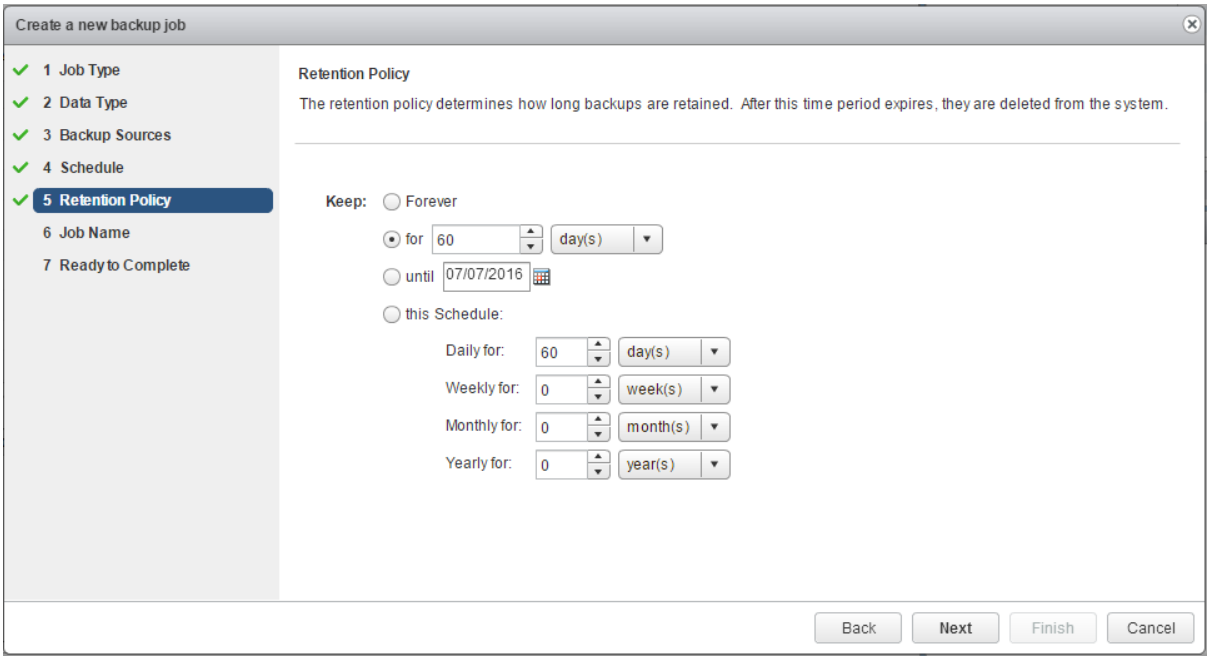

Navigator
History
Home
vCenter Inventory Lists
Hosts and Clusters
VMs and Templates
Storage
Networking
Policies and Profiles
Hybrid Cloud Manager
vRealize Orchestrator
vSphere Replication
vSphere Data Protection ...
Administration
Tasks
Log Browser
Events
vSphere Data Protection 6.1 (powered by EMC)
VDP
Welcome to vSphere Data Protection
To manage a vSphere Data Protection Appliance, select an appliance from the drop-down list and click Connect
VDP Appliance:
vdp6.lab.local
Connect
Status:
Not connected
To deploy a new instance of the vSphere Data Protection Appliance, select vCenter > Hosts and Clusters. Right-click the server to which you want to deploy the Appliance and select Deploy OVF Template.

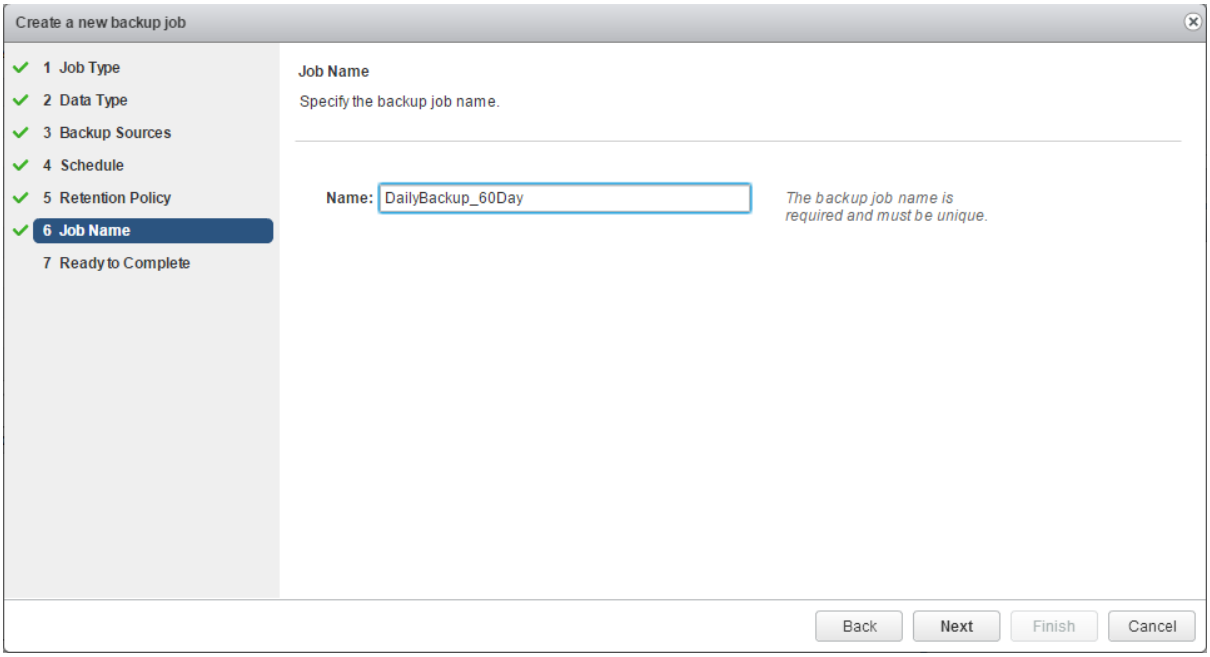

vSphere Data Protection 6.1 (powered by EMC)
vdp6.lab.local
Switch Appliance:
vDP58
All Actions
Getting Started
Backup
Restore
Replication
Reports
Configuration
Backup
Backup Verification
Refresh
Backup job actions
Backup now
Filter:
Show All
New
Edit
Clone
Delete
Enable/Disable
Name
State
Type
Last Start Time
Duration
Failure
Destinatio

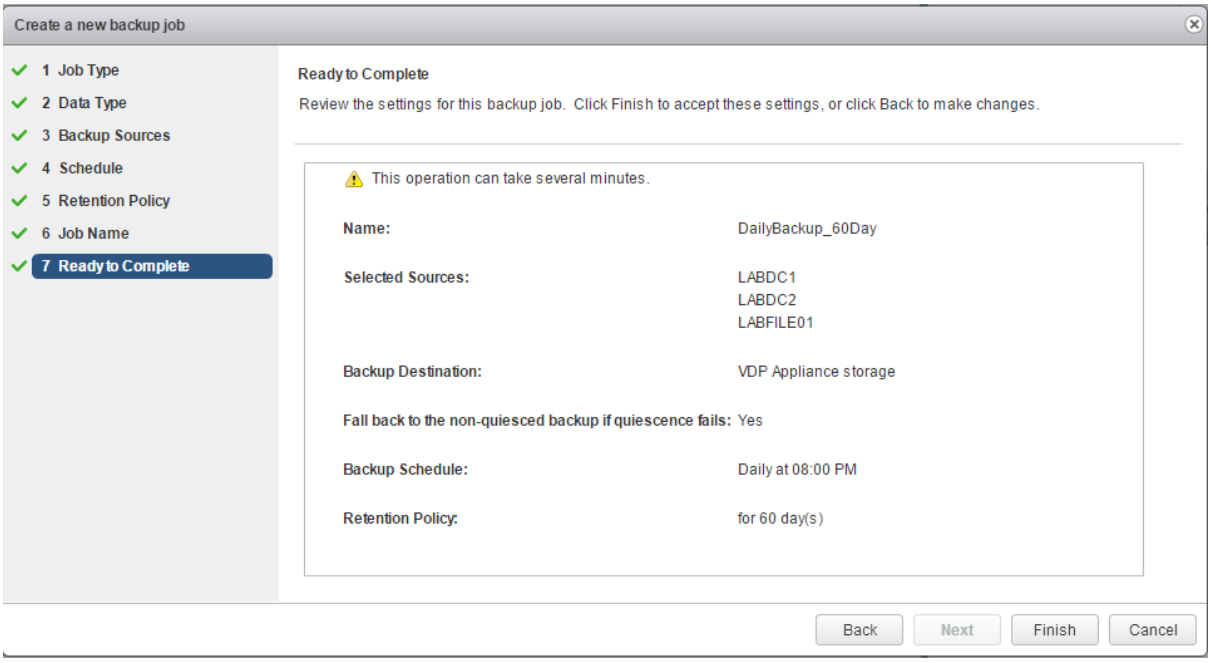

Create a new backup job
1 Job Type
2 Data Type
3 Backup Sources
4 Schedule
5 Retention Policy
6 Job Name
7 Ready to Complete
Data Type
Select the type of the backup you wish to perform.
Full Image
Select this option to backup full virtual machine images.
Individual Disks
Select this option to backup individual virtual machine disks.
Fall back to the non-quiesced backup if quiescence fails
Back
Next
Finish
Cancel

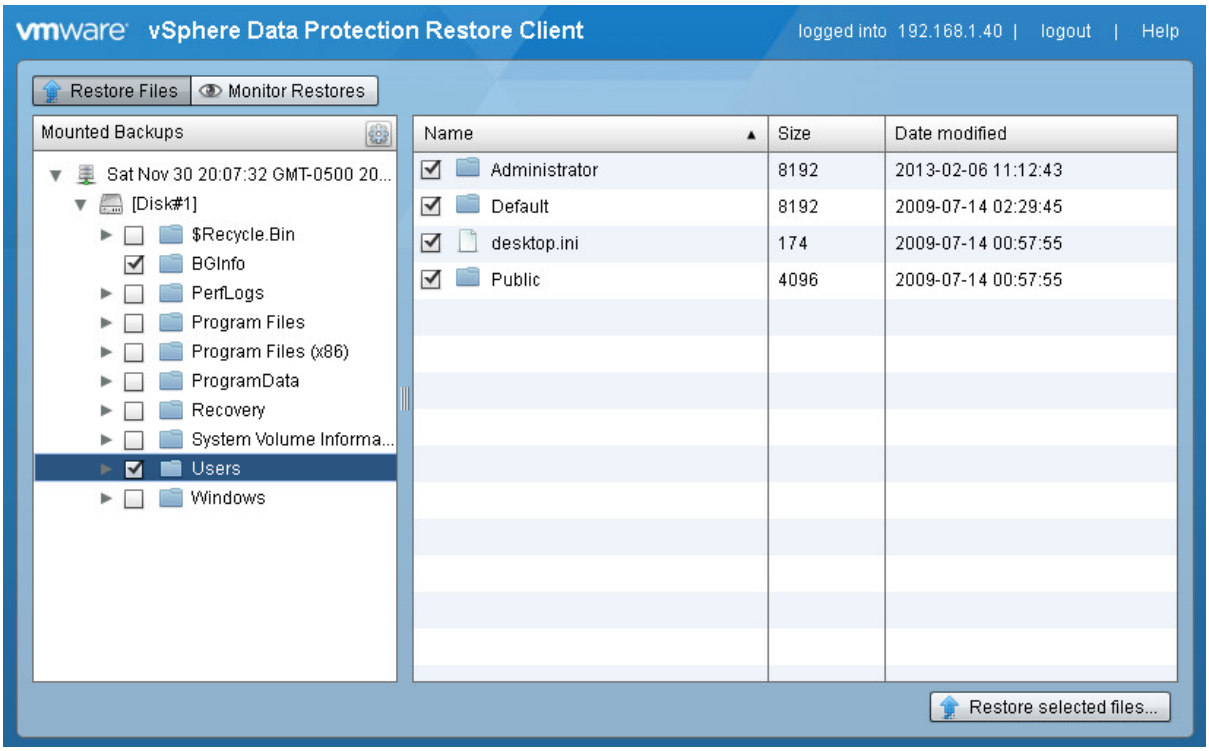

Create a new backup job
1 Job Type
2 Data Type
3 Backup Sources
4 Schedule
5 Retention Policy
6 Job Name
7 Ready to Complete
Backup Sources
Select the backup sources from the list below.
Clear All Selections
Virtual Machines
192.168.1.27
LAB
LABCLUSTER
Nested-Lab
CONSRV01
LABDC1
LABDC2
LABFILE01
LABSQL01
psc60-lab
SECSRV01
Test
vcsa60
Back
Next
Finish
Cancel

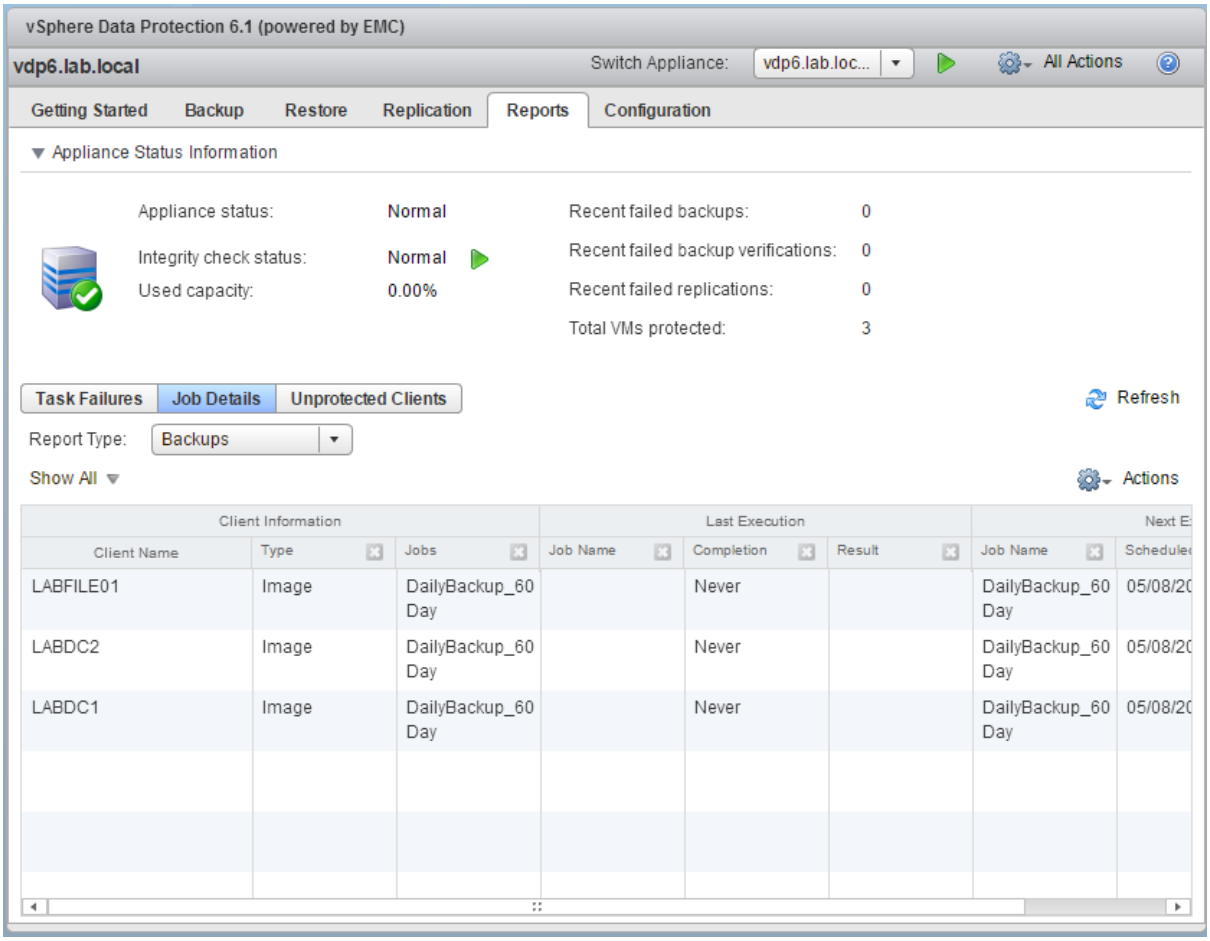

Create a new backup job
1 Job Type
2 Data Type
3 Backup Sources
4 Schedule
5 Retention Policy
6 Job Name
7 Ready to Complete
Schedule
The schedule determines how often your selections will be backed up. Backups will occur as close to the start of the backup window as possible.
Backup Schedule:
Daily
Weekly performed every
Sunday
The
first
Sunday
of every month
Start Time on Server:
8 : 00 PM
Back
Next
Finish
Cancel

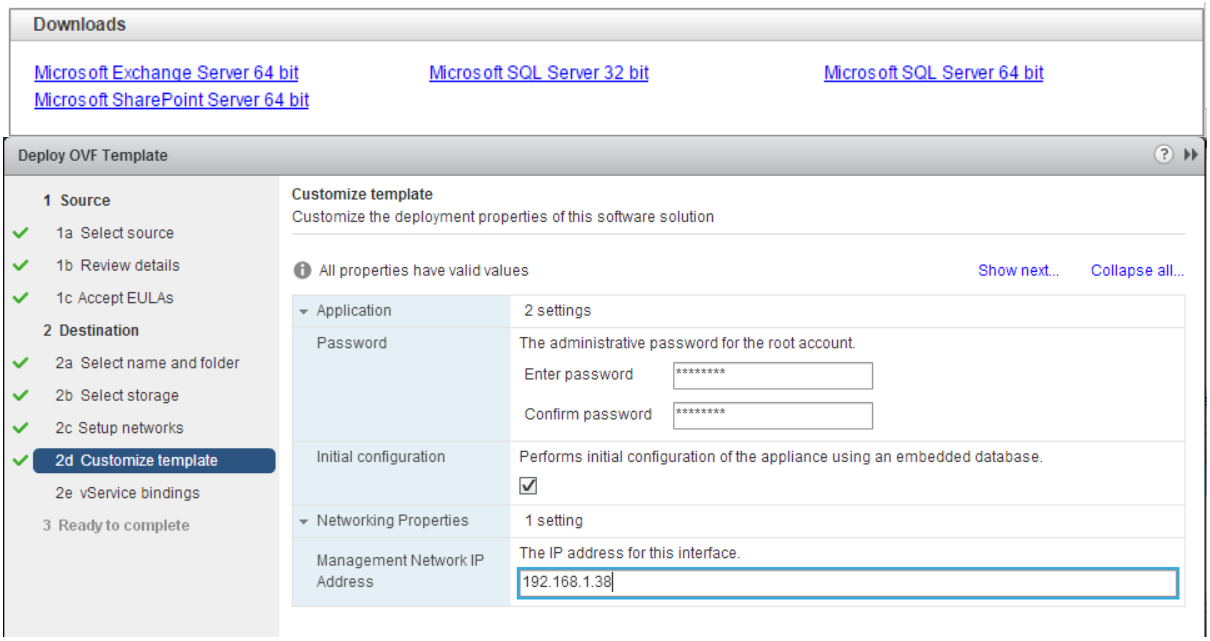

Create a new backup job
1 Job Type
2 Data Type
3 Backup Sources
4 Schedule
5 Retention Policy
6 Job Name
7 Ready to Complete
Retention Policy
The retention policy determines how long backups are retained. After this time period expires, they are deleted from the system.
Keep:
Forever
for 60 day(s)
until 07/07/2016
this Schedule:
Daily for: 60 day(s)
Weekly for: 0 week(s)
Monthly for: 0 month(s)
Yearly for: 0 year(s)
Back
Next
Finish
Cancel

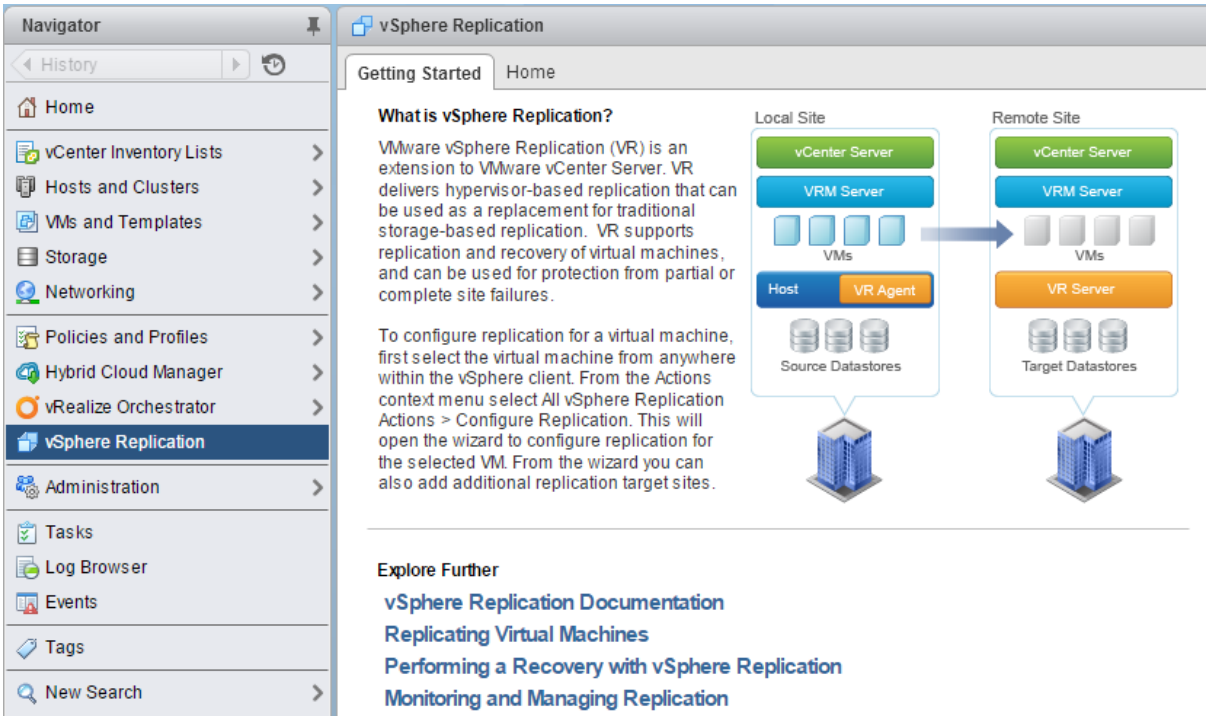

Create a new backup job
1 Job Type
2 Data Type
3 Backup Sources
4 Schedule
5 Retention Policy
6 Job Name
7 Ready to Complete
Job Name
Specify the backup job name.
Name:
DailyBackup_60Day
The backup job name is required and must be unique.
Back
Next
Finish
Cancel


Create a new backup job
1 Job Type
2 Data Type
3 Backup Sources
4 Schedule
5 Retention Policy
6 Job Name
7 Ready to Complete
Ready to Complete
Review the settings for this backup job. Click Finish to accept these settings, or click Back to make changes.
This operation can take several minutes.
Name:
DailyBackup_60Day
Selected Sources:
LABDC1
LABDC2
LABFILE01
Backup Destination:
VDP Appliance storage
Fall back to the non-quiesced backup if quiescence fails:
Yes
Backup Schedule:
Daily at 08:00 PM
Retention Policy:
for 60 day(s)
Back
Next
Finish
Cancel

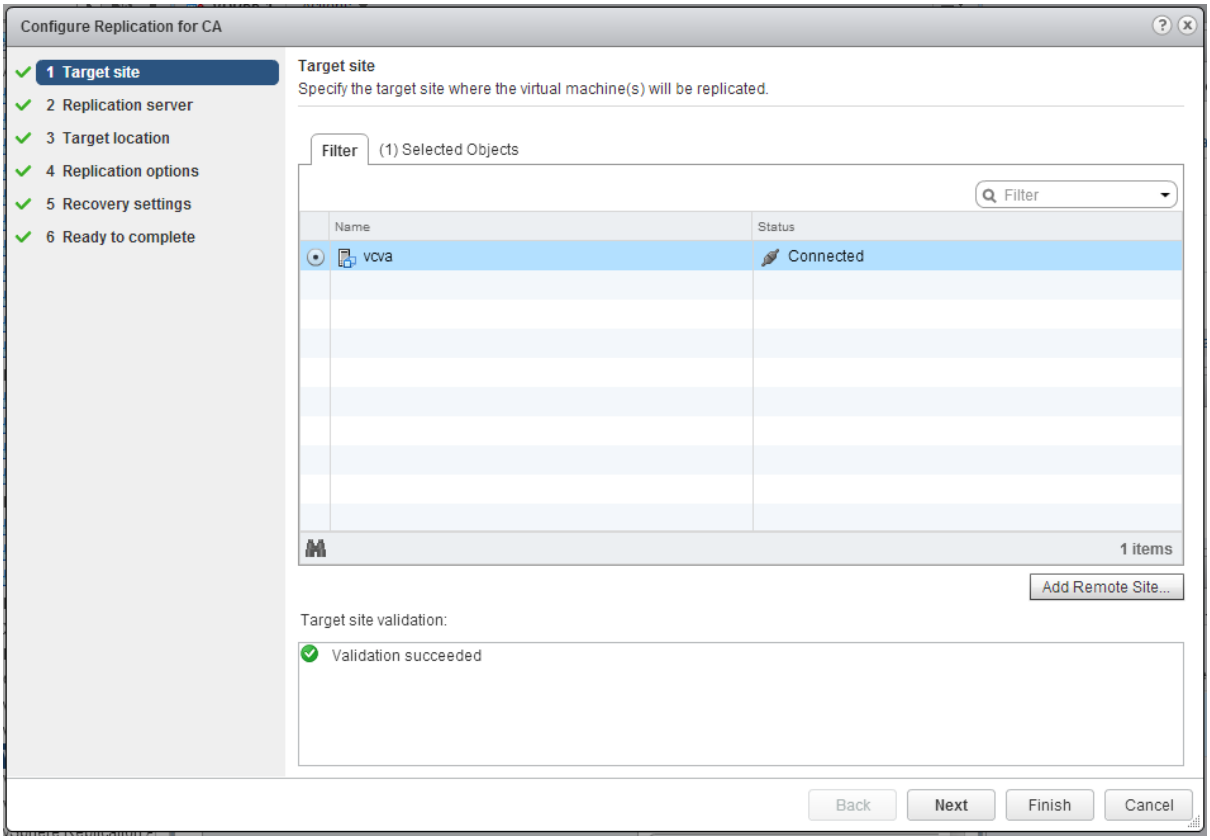

vmware vSphere Data Protection Restore Client
logged into 192.168.1.40 | logout | Help
Restore Files
Monitor Restores
Mounted Backups
Sat Nov 30 20:07:32 GMT-0500 20...
[Disk#1]
$Recycle.Bin
BGInfo
PerfLogs
Program Files
Program Files (x86)
ProgramData
Recovery
System Volume Informa...
Users
Windows
Name
Size
Date modified
Administrator 8192 2013-02-06 11:12:43
Default 8192 2009-07-14 02:29:45
desktop.ini 174 2009-07-14 00:57:55
Public 4096 2009-07-14 00:57:55
Restore selected files...

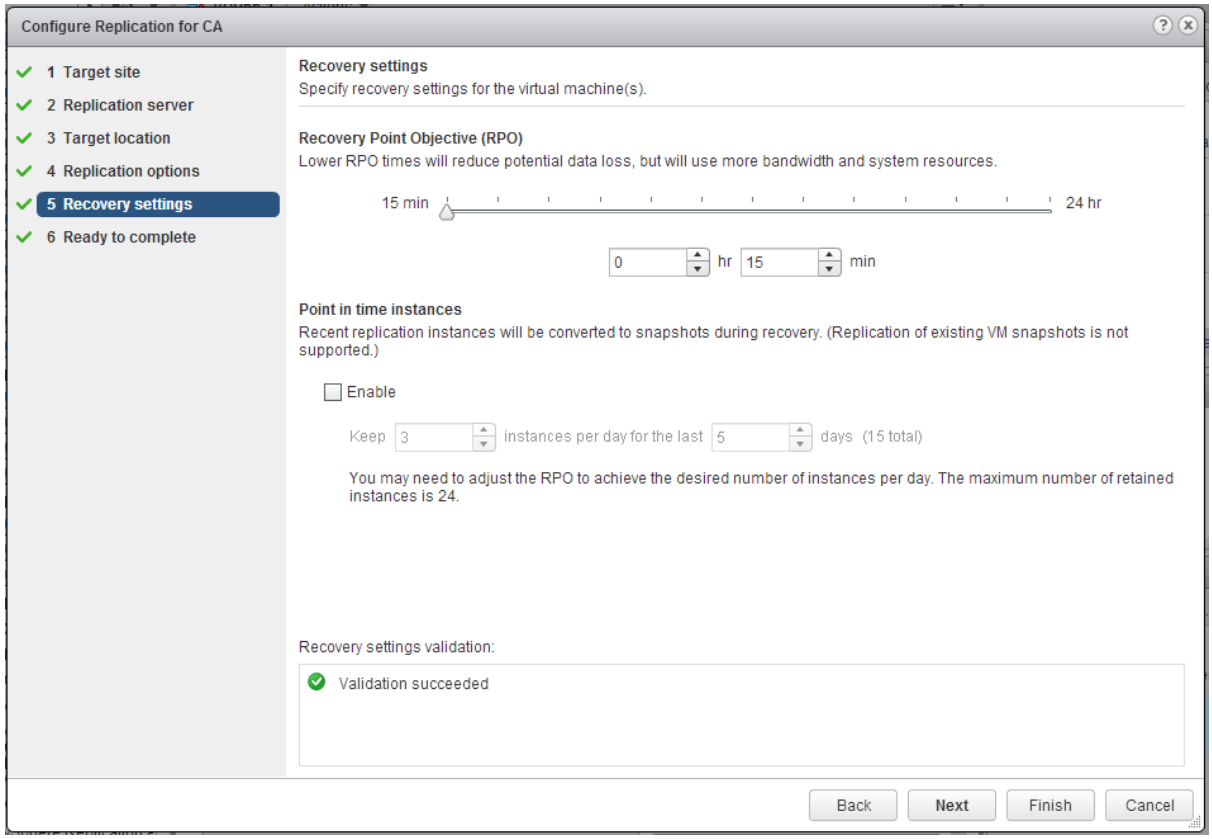

vSphere Data Protection 6.1 (powered by EMC)
vdp6.lab.local
Switch Appliance:
vdp6.lab.loc...
All Actions
Getting Started
Backup
Restore
Replication
Reports
Configuration
Appliance Status Information
Appliance status:
Normal
Integrity check status:
Normal
Used capacity:
0.00%
Recent failed backups:
0
Recent failed backup verifications:
0
Recent failed replications:
0
Total VMs protected:
3
Task Failures
Job Details
Unprotected Clients
Refresh
Report Type:
Backups
Show All
Actions
Client Information
Last Execution
Next E
Client Name
Type
Jobs
Job Name
Completion
Result
Job Name
Schedule
LABFILE01
Image
DailyBackup_60 Day
Never
DailyBackup_60 Day
05/08/20
LABDC2
Image
DailyBackup_60 Day
Never
DailyBackup_60 Day
05/08/20
LABDC1
Image
DailyBackup_60 Day
Never
DailyBackup_60 Day
05/08/20

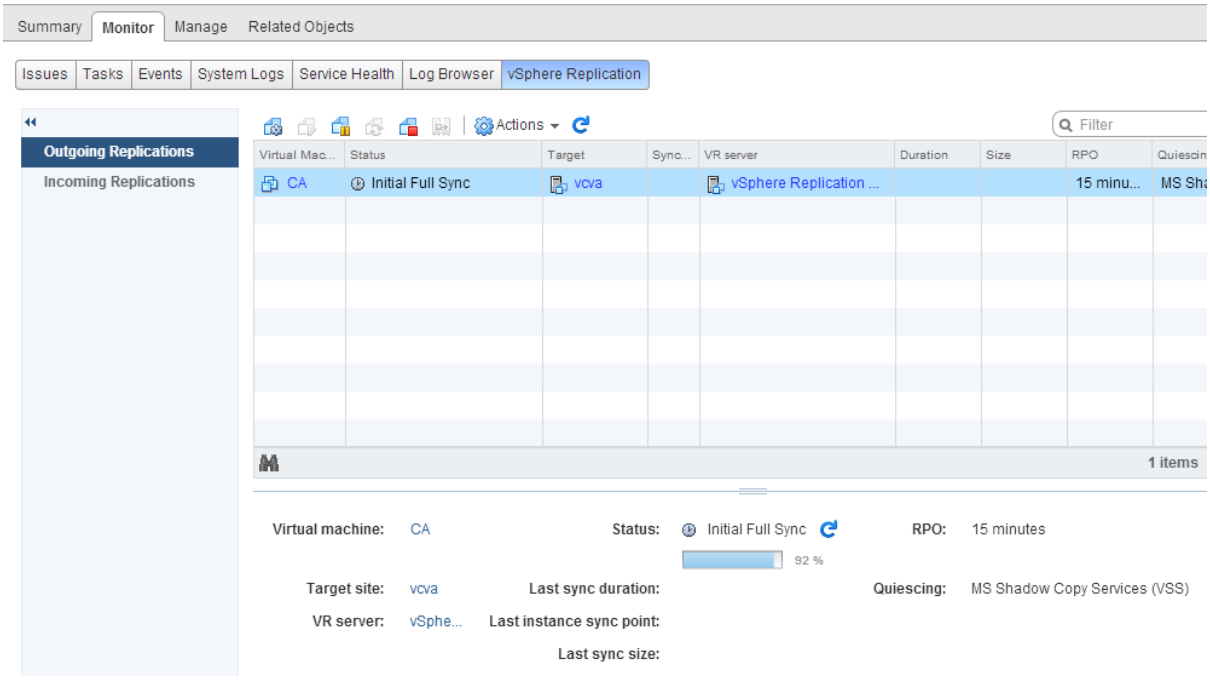

Downloads
Microsoft Exchange Server 64 bit
Microsoft SQL Server 32 bit
Microsoft SQL Server 64 bit
Microsoft SharePoint Server 64 bit
Deploy OVF Template
1 Source
1a Select source
1b Review details
1c Accept EULAs
2 Destination
2a Select name and folder
2b Select storage
2c Setup networks
2d Customize template
2e vService bindings
3 Ready to complete
Customize template
Customize the deployment properties of this software solution
All properties have valid values
Show next...
Collapse all...
Application
2 settings
Password
The administrative password for the root account.
Enter password
Confirm password
Initial configuration
Performs initial configuration of the appliance using an embedded database.
Networking Properties
1 setting
Management Network IP Address
The IP address for this interface.
192.168.1.38

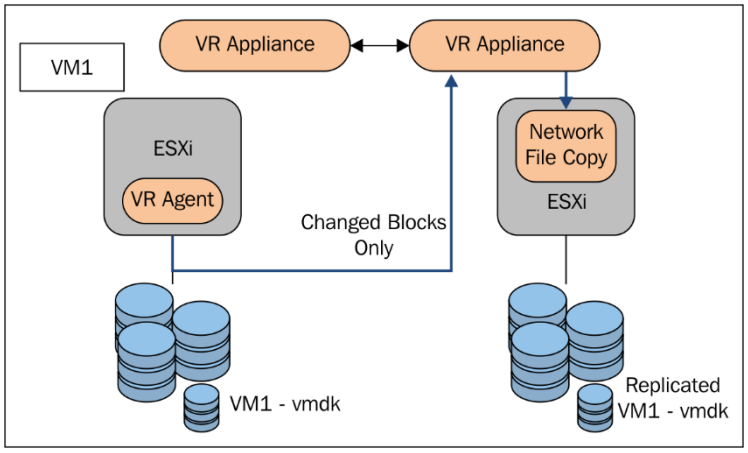

Navigator
History
Home
vCenter Inventory Lists
Hosts and Clusters
VMs and Templates
Storage
Networking
Policies and Profiles
Hybrid Cloud Manager
vRealize Orchestrator
vSphere Replication
Administration
Tasks
Log Browser
Events
Tags
New Search
vSphere Replication
Getting Started
Home
What is vSphere 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
Explore Further
vSphere Replication Documentation
Replicating Virtual Machines
Performing a Recovery with vSphere Replication
Monitoring and Managing Replication

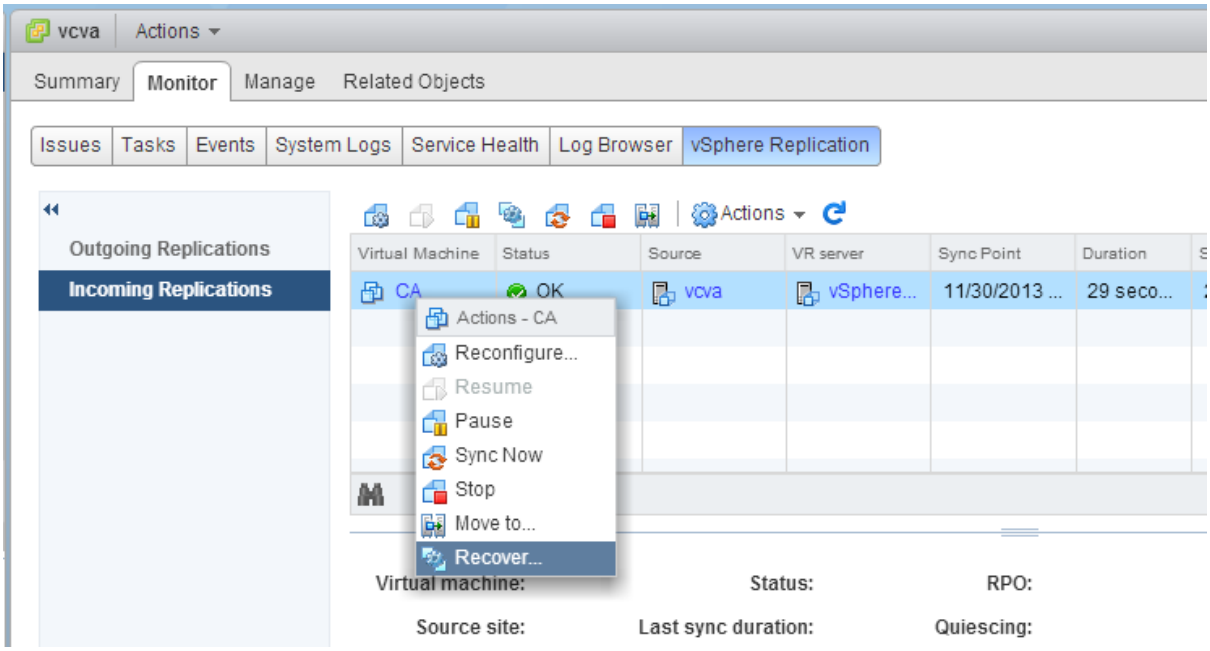
Delete from Disk
All vRealize Orchestrator plugin Actions
All vSphere Replication Actions
Configure Replication...

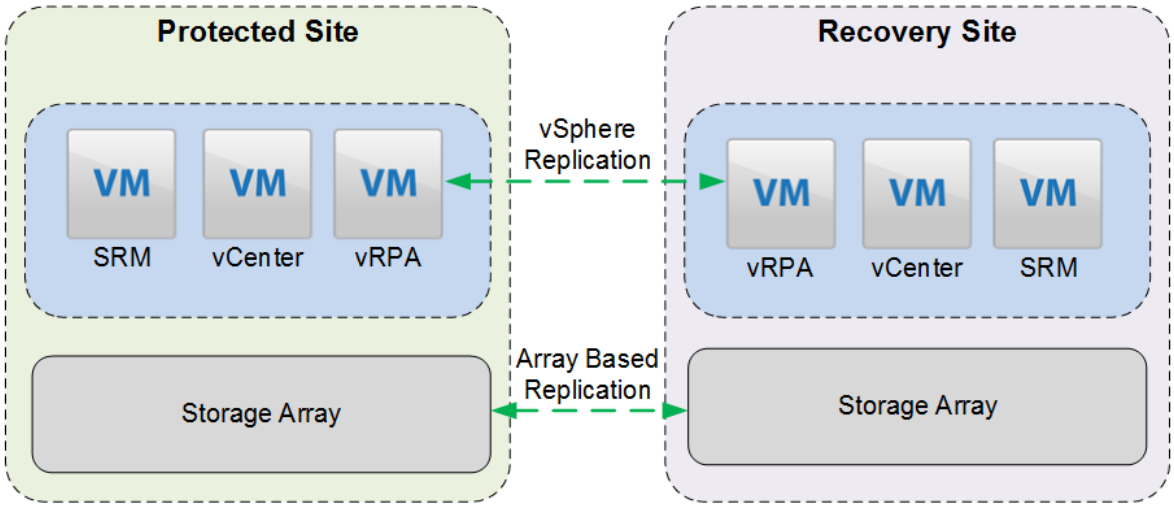

Configure Replication for CA
1 Target site
2 Replication server
3 Target location
4 Replication options
5 Recovery settings
6 Ready to complete
Target site
Specify the target site where the virtual machine(s) will be replicated.
Filter
(1) Selected Objects
Filter
Name
Status
vcva
Connected
1 items
Add Remote Site...
Target site validation:
Validation succeeded
Back
Next
Finish
Cancel


Configure Replication for CA
1 Target site
2 Replication server
3 Target location
4 Replication options
5 Recovery settings
6 Ready to complete
Recovery settings
Specify recovery settings for the virtual machine(s).
Recovery Point Objective (RPO)
Lower RPO times will reduce potential data loss, but will use more bandwidth and system resources.
15 min
24 hr
0
hr
15
min
Point in time instances
Recent replication instances will be converted to snapshots during recovery. (Replication of existing VM snapshots is not supported.)
Enable
Keep 3 instances per day for the last 5 days (15 total)
You may need to adjust the RPO to achieve the desired number of instances per day. The maximum number of retained instances is 24.
Recovery settings validation:
Validation succeeded
Back
Next
Finish
Cancel


Summary
Monitor
Manage
Related Objects
Issues
Tasks
Events
System Logs
Service Health
Log Browser
vSphere Replication
Outgoing Replications
Incoming Replications
Actions
Filter
Virtual Mac...
Status
Target
Sync...
VR server
Duration
Size
RPO
Quiescin
CA
Initial Full Sync
vcva
vSphere Replication ...
15 minu...
MS Sha
1 items
Virtual machine:
CA
Status:
Initial Full Sync
92 %
RPO:
15 minutes
Target site:
vcva
Last sync duration:
Quiescing:
MS Shadow Copy Services (VSS)
VR server:
vSphe...
Last instance sync point:
Last sync size:


VM1
VR Appliance
VR Appliance
ESXi
VR Agent
Network
File Copy
ESXi
Changed Blocks
Only
VM1 - vmdk
Replicated
VM1 - vmdk

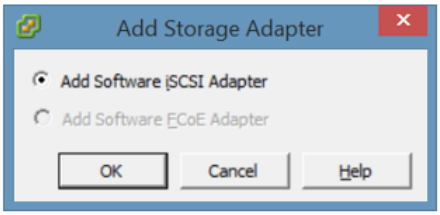

vcva
Actions
Summary
Monitor
Manage
Related Objects
Issues
Tasks
Events
System Logs
Service Health
Log Browser
vSphere Replication
Outgoing Replications
Incoming Replications
Actions
Virtual Machine
Status
Source
VR server
Sync Point
Duration
CA
OK
vcva
vSphere...
11/30/2013 ...
29 seco...
Actions - CA
Reconfigure...
Resume
Pause
Sync Now
Stop
Move to...
Recover...
Virtual machine:
Status:
RPO:
Source site:
Last sync duration:
Quiescing:


Protected Site
VM
VM
VM
SRM
vCenter
vRPA
Storage Array
vSphere
Replication
Array Based
Replication
Recovery Site
VM
VM
VM
vRPA
vCenter
SRM
Storage Array

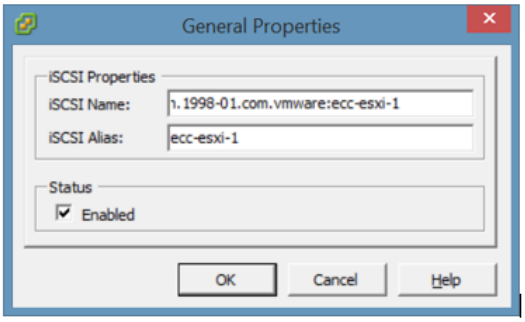
Chapter 12: Design Documentation

5.3 Configure Storage

1. Enable the Software iSCSI HBA.
    - Select **Storage Adapters** in the **Hardware** menu.
    - Select **Add** to create the Software iSCSI HBA



    - Select the new Software iSCSI HBA and select **Properties**.
    - In the iSCSI initiator properties select **Configure** to set the **iSCSI Name** and **iSCSI Alias**.

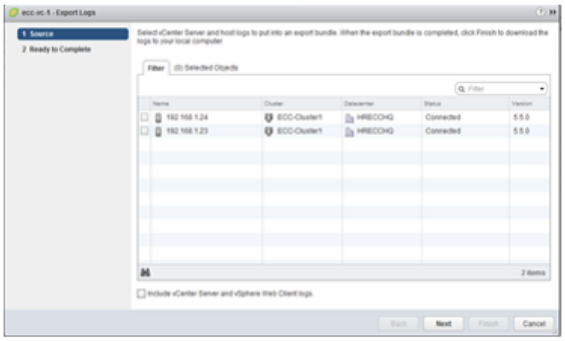


    - Select the **Network Configuration** tab and **Add** the iSCSI-A VMkernel

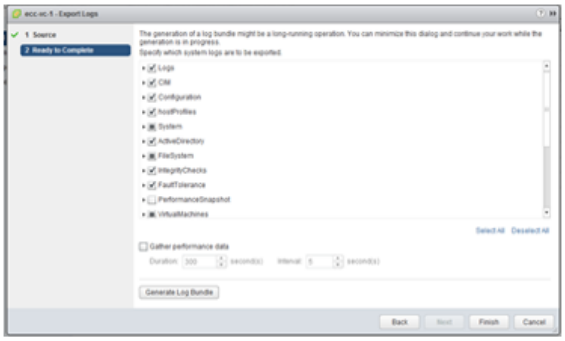
5. Exporting a vCenter Log Bundle

When a service request is submitted to VMware for support, VMware Support may require the system logs to troubleshoot the reported issue.

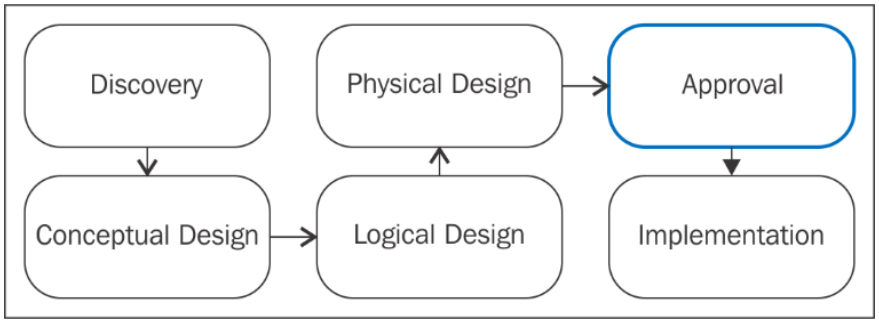
1. To export system logs right-click the vCenter Server inventory object and select **All vCenter Actions** -> **Export System Logs**.
2. Select the hosts and vCenter logs to include in the log bundle.

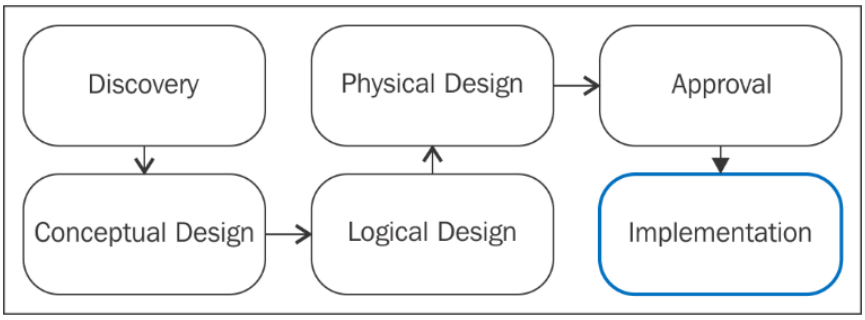


3. Select the logs to export. In most cases the default selections will be used unless otherwise stated by VMware Support. Click **Generate Log Bundle** to begin the log export.



4. After the log bundle has been generated click **Download Log Bundle** to download the logs.
5. Choose a location to save the log export. A zipped archive containing the exported logs will be downloaded to location selected.


Discovery
Physical Design
Approval
Conceptual Design
Logical Design
Implementation


Discovery
Physical Design
Approval
Conceptual Design
Logical Design
Implementation