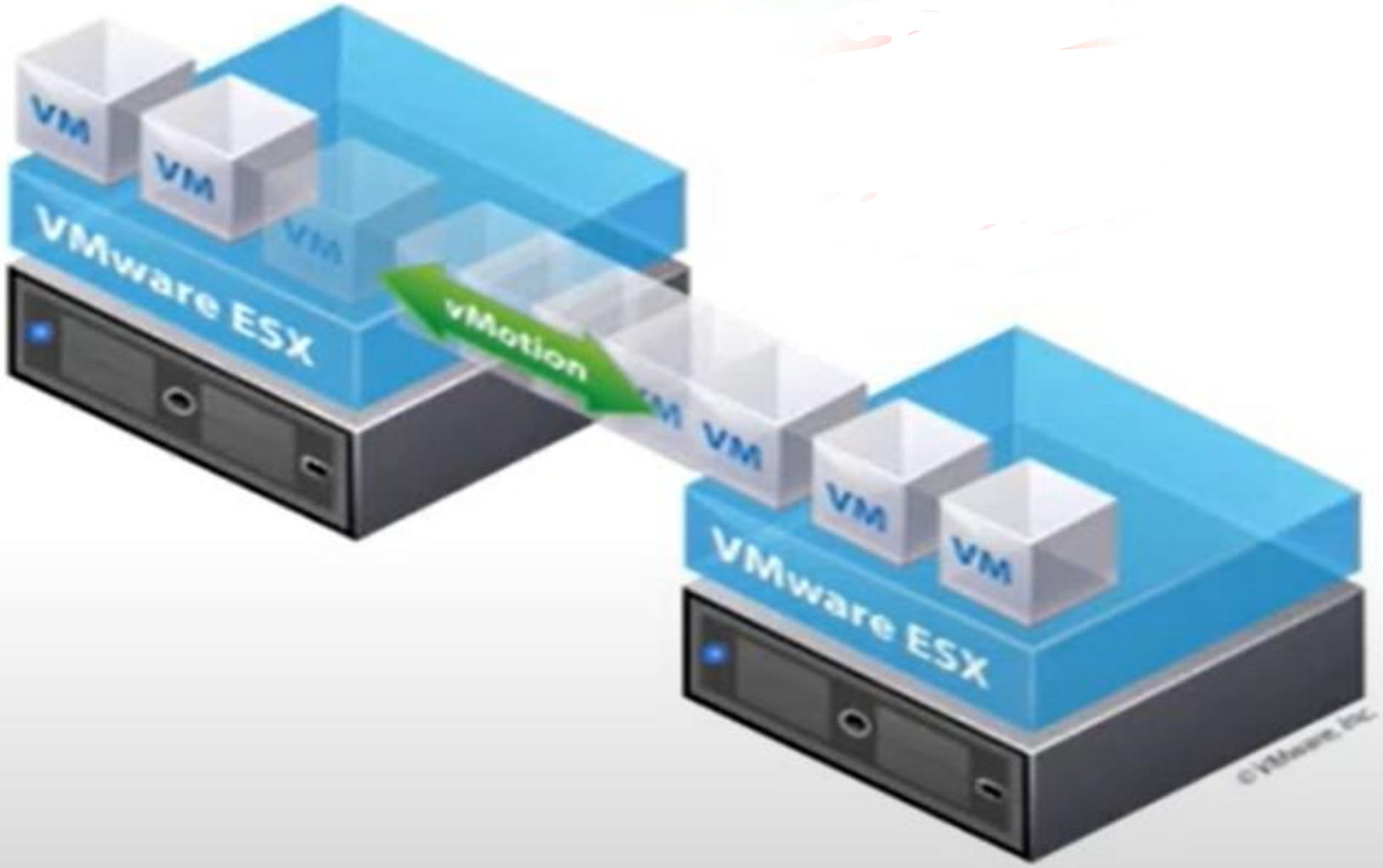
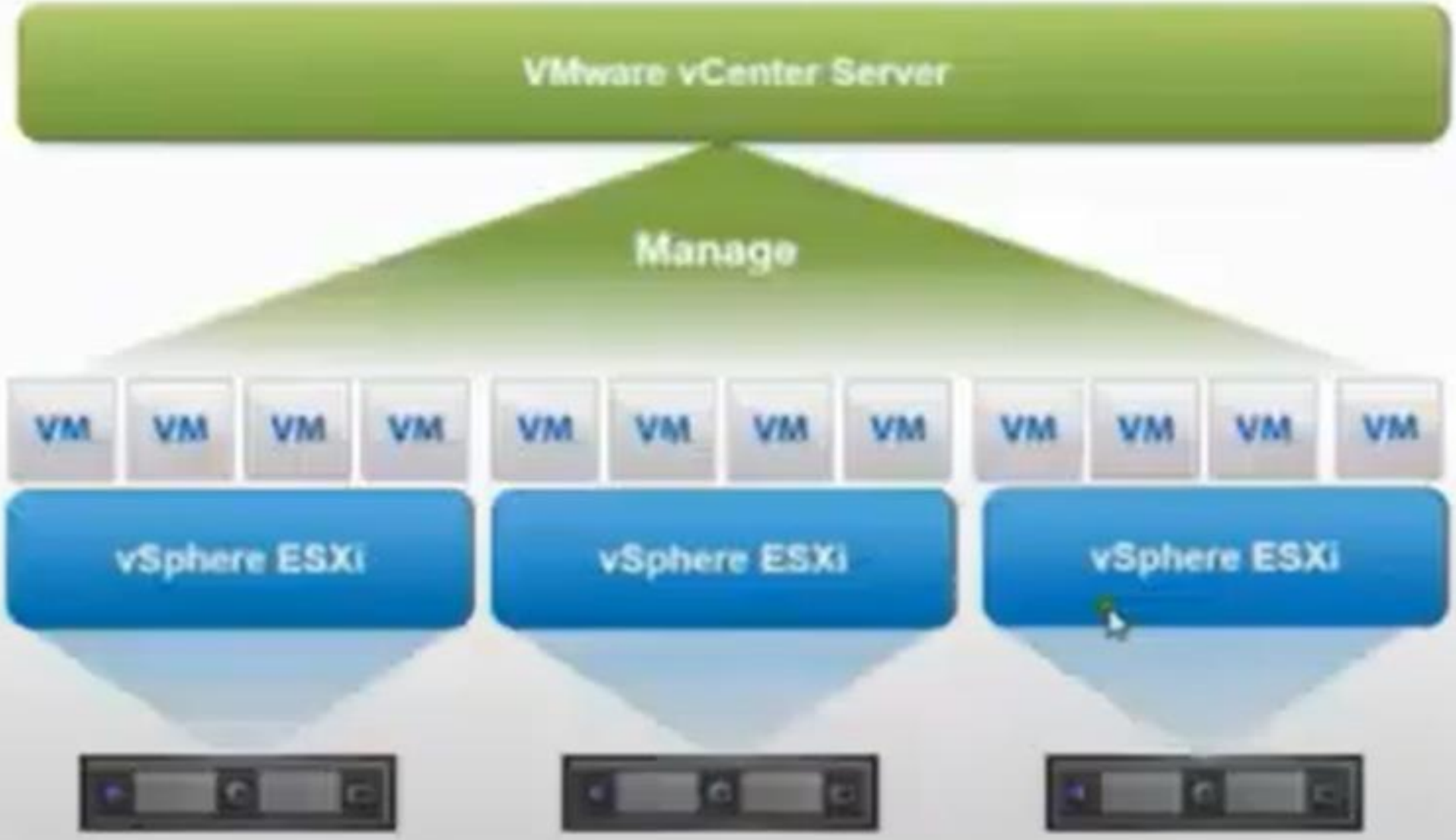
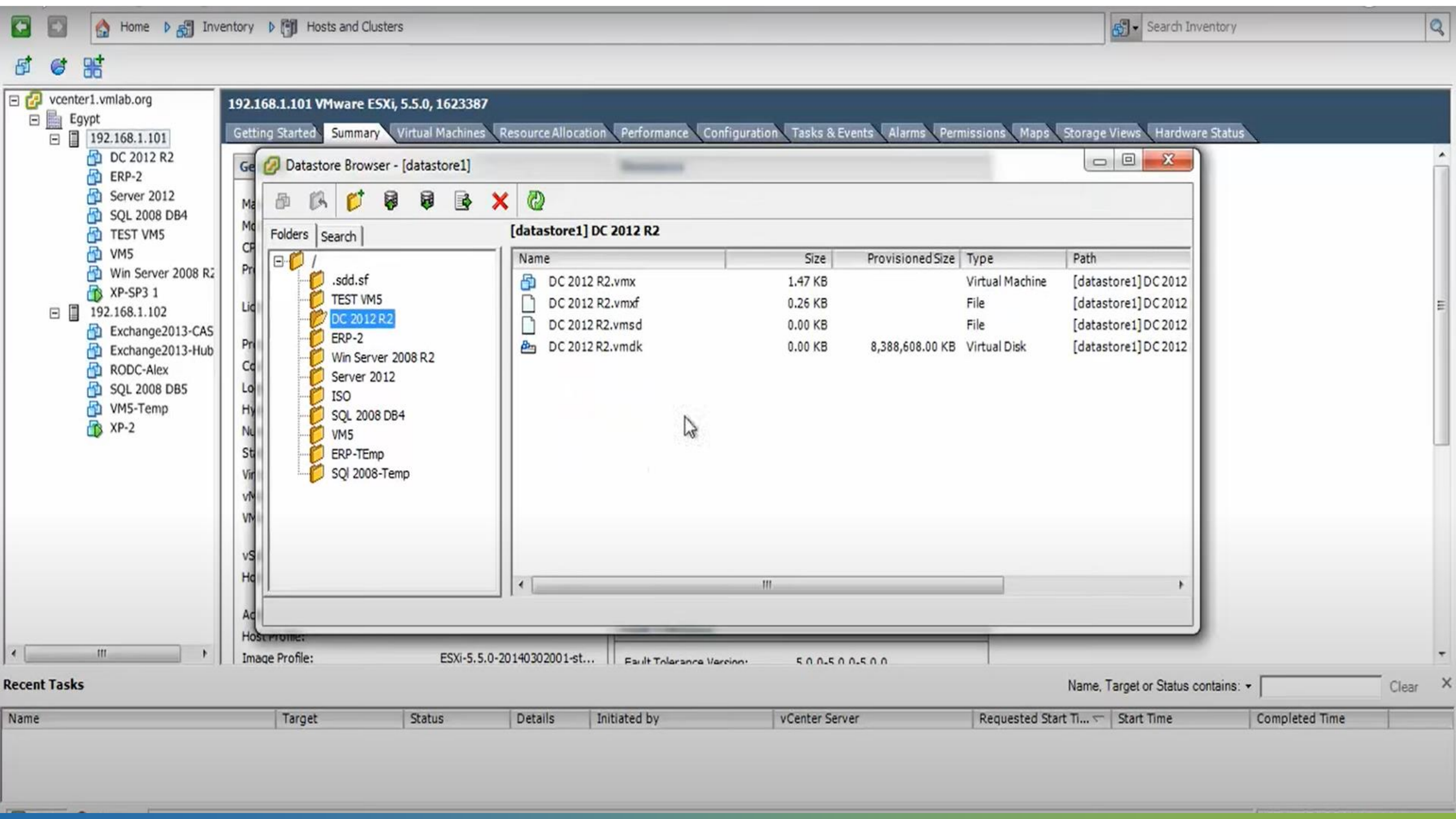
High Availability

1- VMotion



VMware vSphere Infrastructure Products




Home
Inventory
Hosts and Clusters
Search Inventory
vcenter1.vmlab.org
Egypt
192.168.1.101
DC 2012 R2
ERP-2
Server 2012
SQL 2008 DB4
TEST VM5
VM5
Win Server 2008 R2
XP-SP3 1
192.168.1.102
Exchange2013-CAS
Exchange2013-Hub
RODC-Alex
SQL 2008 DB5
VM5-Temp
XP-2
192.168.1.101 VMware ESXi, 5.5.0, 1623387
Getting Started
Summary
Virtual Machines
Resource Allocation
Performance
Configuration
Tasks & Events
Alarms
Permissions
Maps
Storage Views
Hardware Status
Datastore Browser - [datastore1]
Folders
Search
[datastore1] DC 2012 R2
.sdd.sf
TEST VM5
DC 2012 R2
ERP-2
Win Server 2008 R2
Server 2012
ISO
SQL 2008 DB4
VM5
ERP-TEmp
SQl 2008-Temp
Name
Size
Provisioned Size
Type
Path
DC 2012 R2.vmx
1.47 KB
Virtual Machine
[datastore1] DC 2012
DC 2012 R2.vmxf
0.26 KB
File
[datastore1] DC 2012
DC 2012 R2.vmsd
0.00 KB
File
[datastore1] DC 2012
DC 2012 R2.vmdk
0.00 KB
8,388,608.00 KB
Virtual Disk
[datastore1] DC 2012
Image Profile:
ESXi-5.5.0-20140302001-st...
Recent Tasks
Name, Target or Status contains:
Clear
Name
Target
Status
Details
Initiated by
vCenter Server
Requested Start Ti...
Start Time
Completed Time

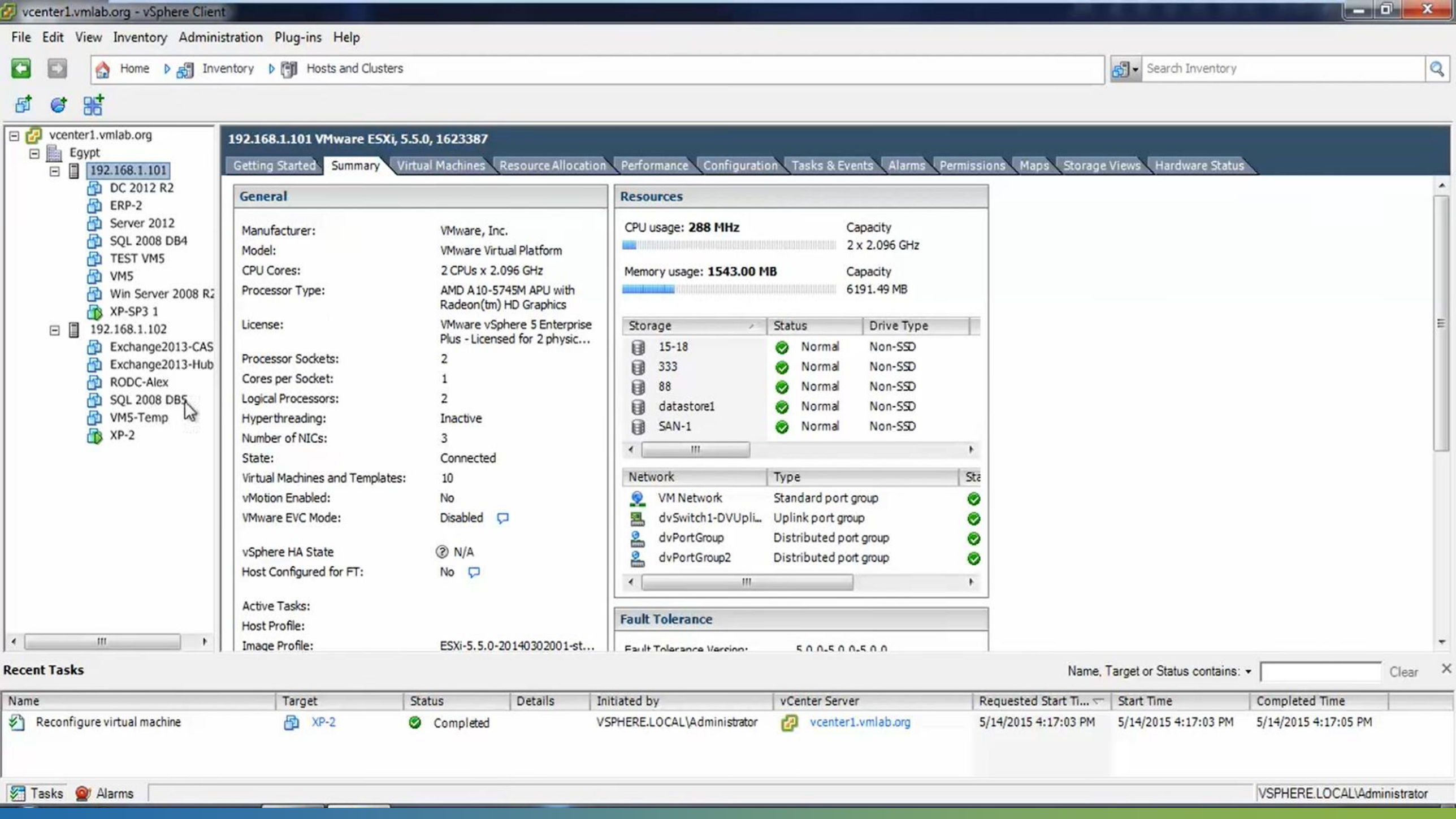
Migrating Virtual Machines

Migration: Moving a virtual machine from one host or datastore to another host or datastore. Types of migrations:

- Cold: Migrate a virtual machine that is powered off.
- Suspended: Migrate a virtual machine that is suspended.
- vSphere vMotion: Migrate a virtual machine that is powered on.
- vSphere Storage vMotion: Migrate a virtual machine's files, while the virtual machine is powered on, to another datastore.

Concurrent migrations are possible:

- A maximum of eight simultaneous vSphere vMotion, cloning, deployment, or vSphere Storage vMotion accesses to a single VMware vSphere® VMFS-5 datastore is supported.


vcenter1.vmlab.org - vSphere Client
File Edit View Inventory Administration Plug-ins Help
Home Inventory Hosts and Clusters
Search Inventory
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Egypt
192.168.1.101
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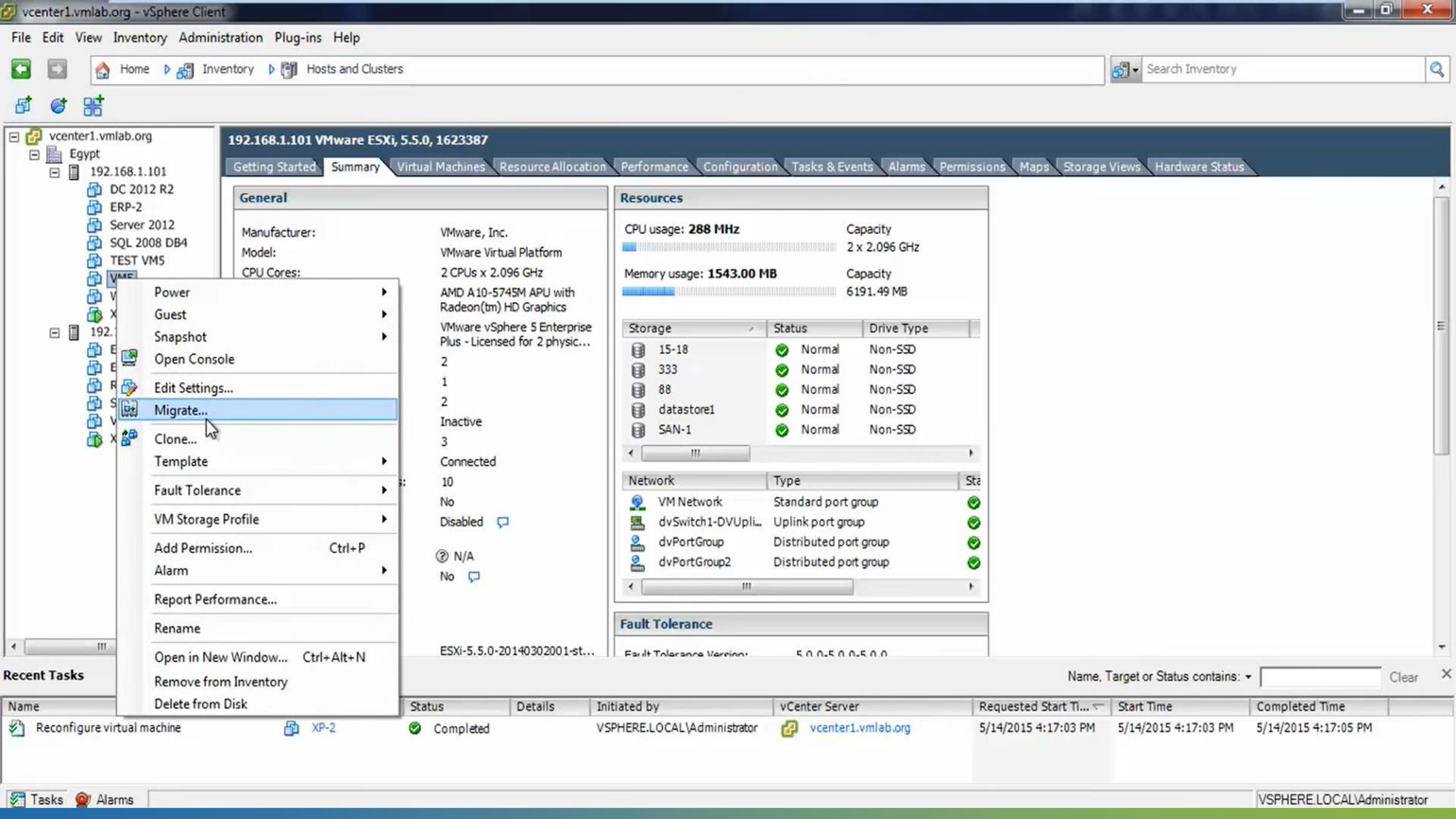
192.168.1.101 VMware ESXi, 5.5.0, 1623387
Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Tasks & Events Alarms Permissions Maps Storage Views Hardware Status
General
Manufacturer: VMware, Inc.
Model: VMware Virtual Platform
CPU Cores: 2 CPUs x 2.096 GHz
Processor Type: AMD A10-5745M APU with Radeon(tm) HD Graphics
License: VMware vSphere 5 Enterprise Plus - Licensed for 2 physic...
Processor Sockets: 2
Cores per Socket: 1
Logical Processors: 2
Hyperthreading: Inactive
Number of NICs: 3
State: Connected
Virtual Machines and Templates: 10
vMotion Enabled: No
VMware EVC Mode: Disabled
vSphere HA State N/A
Host Configured for FT: No
Active Tasks:
Host Profile:
Image Profile: ESXi-5.5.0-20140302001-st...
Resources
CPU usage: 288 MHz
Capacity
2 x 2.096 GHz
Memory usage: 1543.00 MB
Capacity
6191.49 MB
Storage Status Drive Type
15-18 Normal Non-SSD
333 Normal Non-SSD
88 Normal Non-SSD
datastore1 Normal Non-SSD
SAN-1 Normal Non-SSD
Network Type
VM Network Standard port group
dvSwitch1-DVUpli... Uplink port group
dvPortGroup Distributed port group
dvPortGroup2 Distributed port group
Fault Tolerance
Recent Tasks
Name, Target or Status contains:
Clear
Name Target Status Details Initiated by vCenter Server Requested Start Ti... Start Time Completed Time
Reconfigure virtual machine XP-2 Completed VSPHERE.LOCAL\Administrator vcenter1.vmlab.org 5/14/2015 4:17:03 PM 5/14/2015 4:17:03 PM 5/14/2015 4:17:05 PM
Tasks Alarms
VSPHERE.LOCAL\Administrator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Resources
CPU usage: 288 MHz Capacity 2 x 2.096 GHz
Memory usage: 1543.00 MB Capacity 6191.49 MB
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datastore1 Normal Non-SSD
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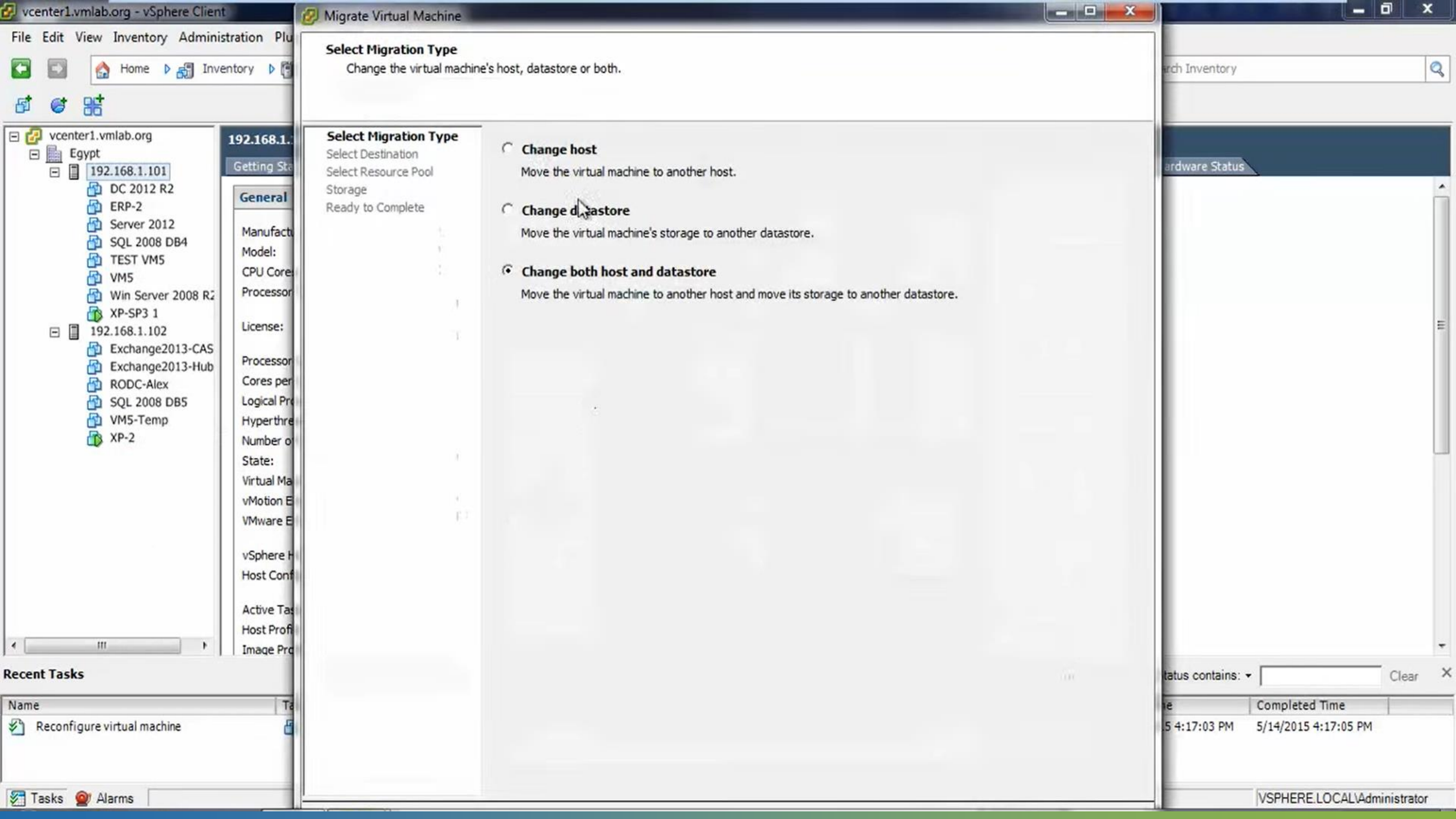
VM Network Standard port group
dvSwitch1-DVUpli... Uplink port group
dvPortGroup Distributed port group
dvPortGroup2 Distributed port group
Fault Tolerance
Power
Guest
Snapshot
Open Console
Edit Settings...
Migrate...
Clone...
Template
Fault Tolerance
VM Storage Profile
Add Permission... Ctrl+P
Alarm
Report Performance...
Rename
Open in New Window... Ctrl+Alt+N
Remove from Inventory
Delete from Disk
Recent Tasks
Name, Target or Status contains:
Clear
Name Status Details Initiated by vCenter Server Requested Start Ti... Start Time Completed Time
Reconfigure virtual machine XP-2 Completed VSPHERE.LOCAL\Administrator vcenter1.vmlab.org 5/14/2015 4:17:03 PM 5/14/2015 4:17:03 PM 5/14/2015 4:17:05 PM
Tasks Alarms
VSPHERE.LOCAL\Administrator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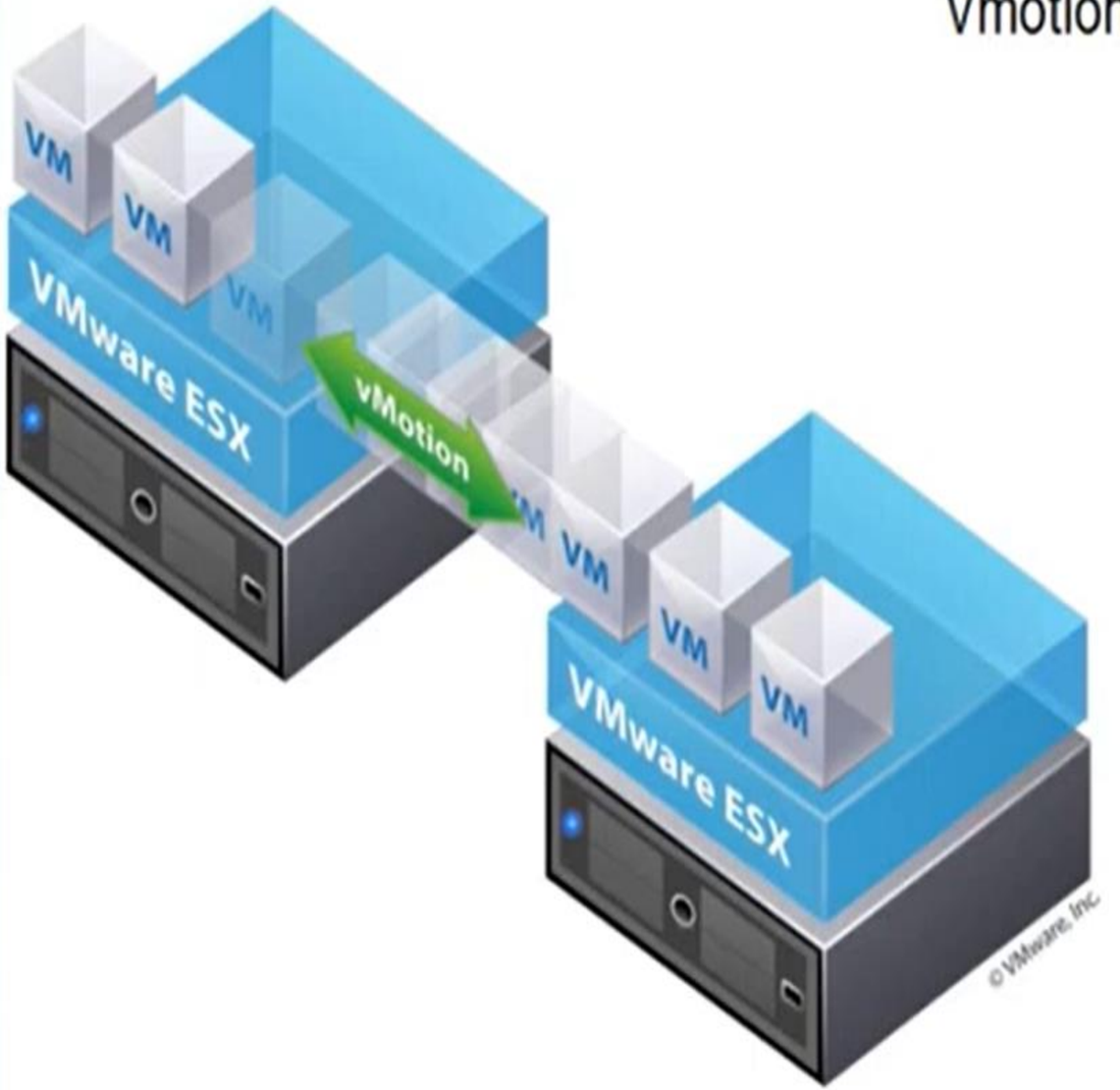
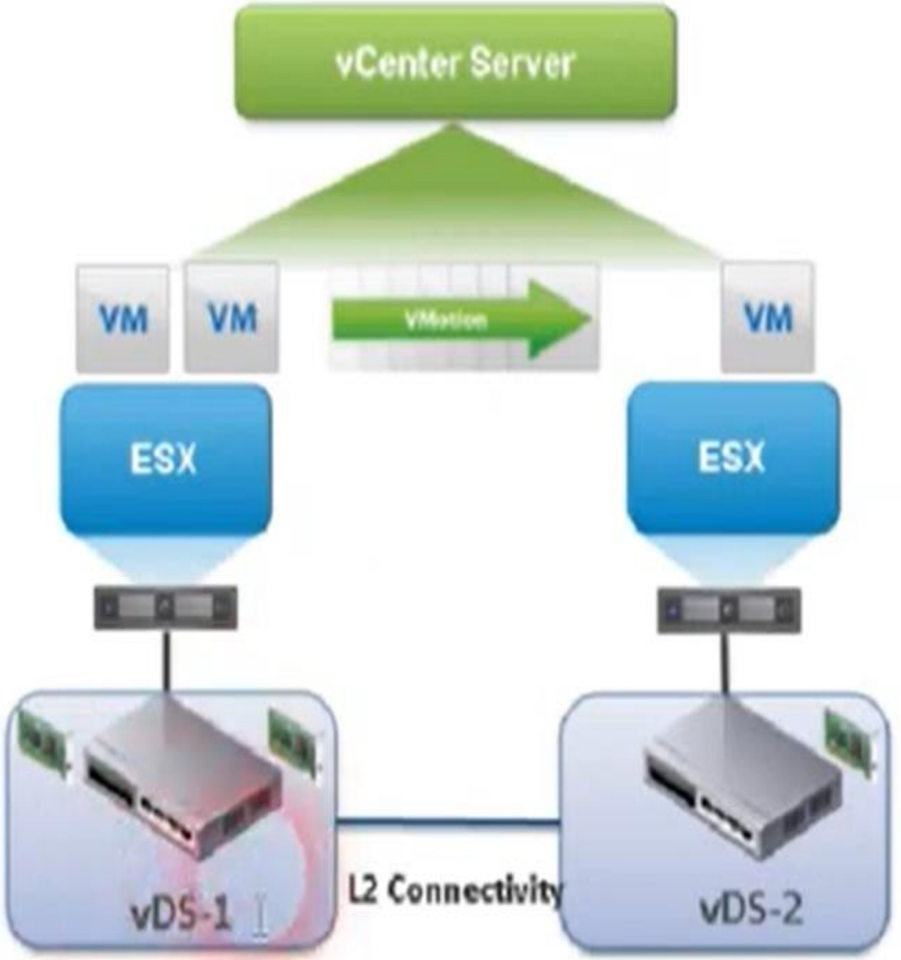
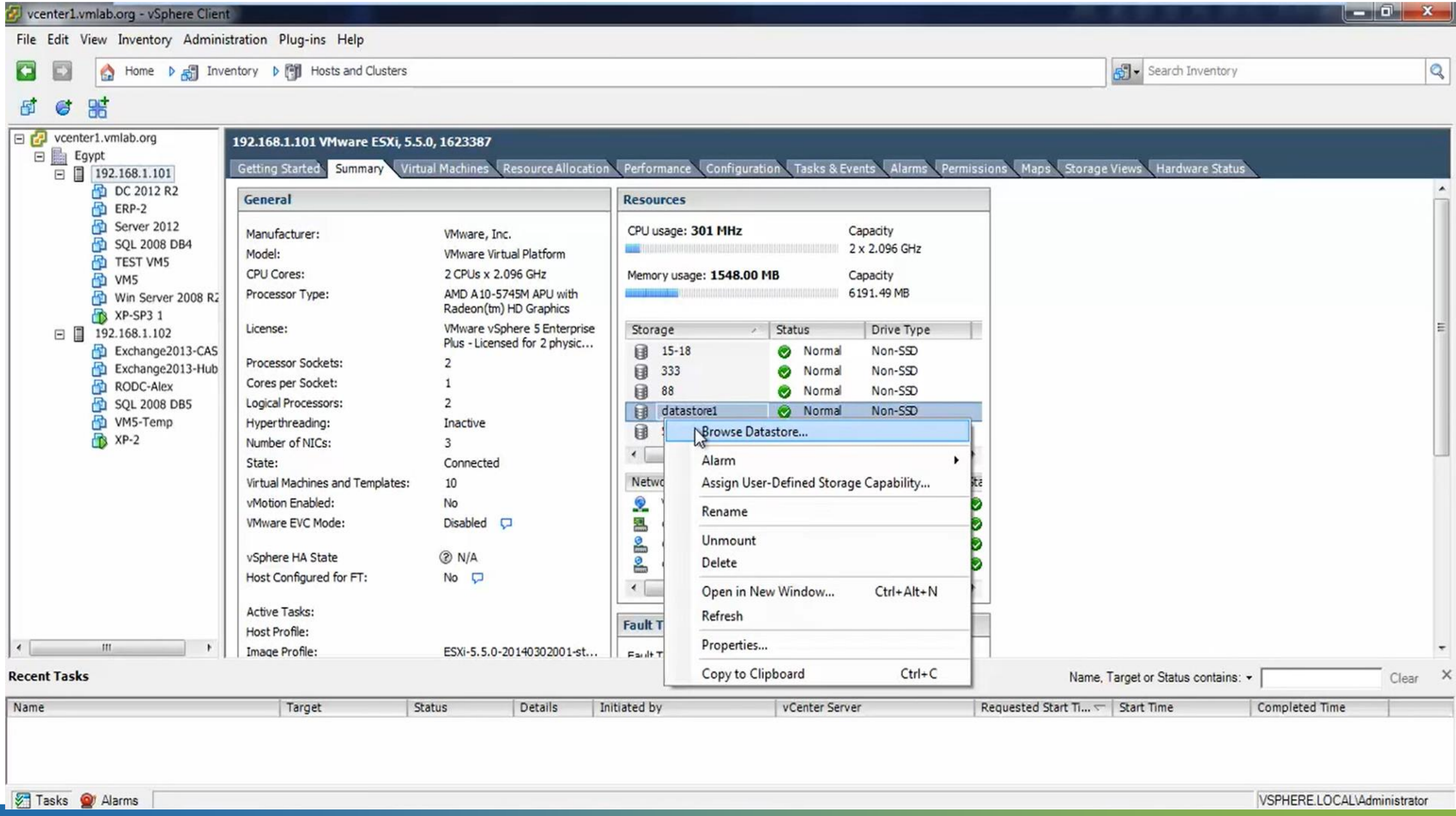
SQL 2008 DB5
VM5-Temp
XP-2
General
Manufacturer:
Model:
CPU Cores:
Processor Type:
License:
Processors:
Cores per Processor:
Logical Processors:
Hyperthreading:
Number of NICs:
State:
Virtual Machines:
vMotion Enabled:
VMware EVC Mode:
vSphere HA State
Host Configured for FT
Active Tasks:
Host Profile:
Image Profile:
Hardware Status
Recent Tasks
Name
Reconfigure virtual machine
Completed Time
5/14/2015 4:17:03 PM
5/14/2015 4:17:05 PM
Tasks
Alarms
VSPHERE.LOCAL\Administrator
Migrate Virtual Machine
Select Migration Type
Change the virtual machine's host, datastore or both.
Select Migration Type
Select Destination
Select Resource Pool
Storage
Ready to Complete
Change host
Move the virtual machine to another host.
Change datastore
Move the virtual machine's storage to another datastore.
Change both host and datastore
Move the virtual machine to another host and move its storage to another datastore.

Vmotion


VM
VM
VM
VMware ESX
vMotion
VM
VM
VM
VMware ESX
© VMware, Inc.


vCenter Server
VM
VM
VMotion
VM
ESX
ESX
vDS-1
L2 Connectivity
vDS-2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333 Normal Non-SSD
88 Normal Non-SSD
datastore1 Normal Non-SSD
Browse Datastore...
Alarm
Assign User-Defined Storage Capability...
Rename
Unmount
Delete
Open in New Window... Ctrl+Alt+N
Refresh
Properties...
Copy to Clipboard Ctrl+C
Recent Tasks
Name, Target or Status contains:
Clear
Name Target Status Details Initiated by vCenter Server Requested Start Ti... Start Time Completed Time
Tasks Alarms
VSPHERE.LOCAL\Administrator

Comparison of Migration Types

Migration Type	Virtual Machine Power State	Change Host or Datastore?	Across Virtual Data Centers?	Shared Storage Required?	CPU Compatibility
Cold	Off	Host or datastore or both	Yes	No	Different CPU families allowed
Suspended	Suspended	Host or datastore or both	Yes	No	Must meet CPU compatibility requirements
vMotion	On	Host	No	Yes	Must meet CPU compatibility requirements
Storage vMotion	On	Datastore	No	No	N/A
Enhanced vMotion	On	Both	No	No	Must meet CPU compatibility requirements