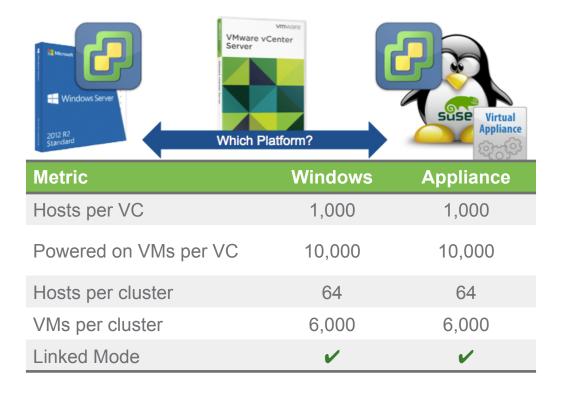
# Center Server 6.0 v

Mohan Potheri, Sr. Solutions Architect Technical Marketing, VMware



## vCenter Server 6.0 Platforms





## Platform Features - Increased vSphere Maximums

Up to 4X Scale Improvement with vSphere 6

	vSphere 5.5	vSphere 6	
Hosts per Cluster	32	64	2x
VMs per Cluster	4,000	8,000	2x
CPUs per Host	320	480	1.5x
RAM per Host	4 TB	12 TB	3x
VMs per Host	512	2,048	4x
Virtual CPUs per VM	64	128	2x
Virtual RAM per VM	1 TB	4 TB	4x



## **Linked Mode**

	vSphere 5.5	vSphere 6.0
Windows	Yes	Yes
Appliance	No	Yes
Single Inventory View	Yes	Yes
Single Inventory Search	Yes	Yes
Replication Technology	Microsoft ADAM	Native
Roles & Permissions	Yes	Yes
• Licenses	Yes	Yes
• Policies	No	Yes
• Tags	No	Yes

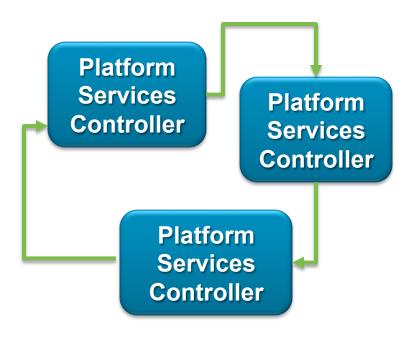


## vCenter Server 6 Components

vCenter Server 5.1 or 5.5 vCenter Server 6.0 vCenter Inventory Service vSphere Web Client vCenter Server vSphere ESXi **Dump Collector**  vCenter Inventory Services vSphere Syslog · vSphere Web Client Collector vSphere Auto Deploy vSphere ESXi Dump vSphere Auto Collector Deploy vSphere Syslog Collector vCenter Server vCenter Server Platform Services Controller vCenter Single Sign-On vSphere License Service VMware Certificate vCenter Single Authority Sign-On

- vCenter Server 6 has been consolidated into two components
  - vCenter Server Node
  - Platform ServicesController
- Single sign-on has evolved into PSC
- All other components consolidated in vCenter Server

# VMware Platform Services Controller (PSC)



- No longer just Single Sign-On
  - We're adding additional services
- Platform Services Controller includes a set of common infrastructure services that are used by the vCloud Suite (vCenter, vCAC, vCOPS, etc)
  - Single Sign-On (SSO)
  - Licensing
  - Certificate Authority
  - Certificate Store
  - Service (Product) Registration
  - Tagging and categories
  - Global Permissions
- Platform Services Controller supports data replication

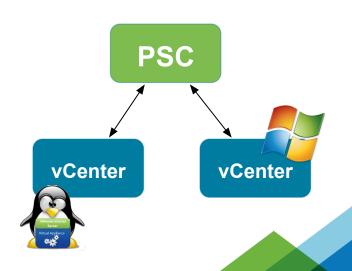


## vCenter Server 6.0

- Two deployment models
  - Embedded
    - vCenter Server and Platform Services
      Controller in one virtual machine.
      - Recommended for small deployments where there is less then two SSO integrated solutions.

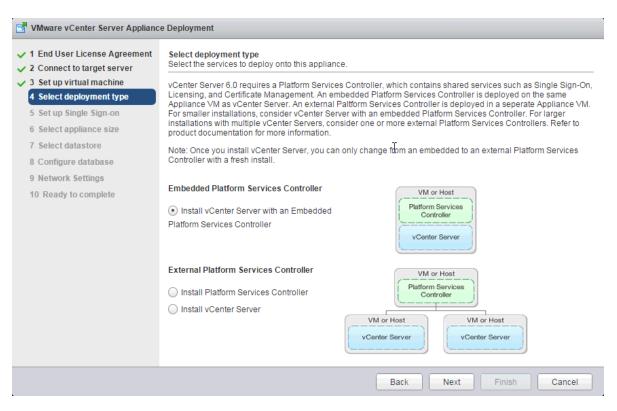
- External
  - vCenter Server and Platform Services
    Controller in their own virtual machines.
    - Recommended for most deployments where there are two or more SSO integrated solutions.







## vCenter Server Appliance Install



- New Guided Install
- Choose deployment type
- All input up front & validated
- Pre-Check functionality
- Scripted Install for Advanced
   Administrators



# vCenter Appliance Install Walk Through

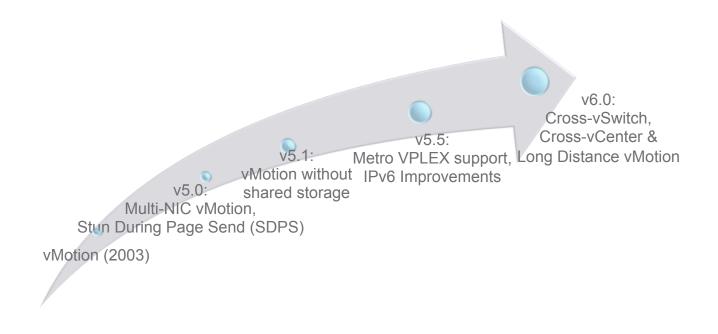


# **vMotion Enhancements**



## **vMotion Feature Timeline**

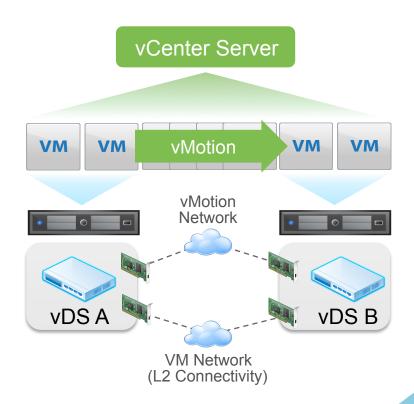
vMotion continually innovating in pace with technology and market trends!





## vCenter Server 6.0 - Cross vSwitch vMotion

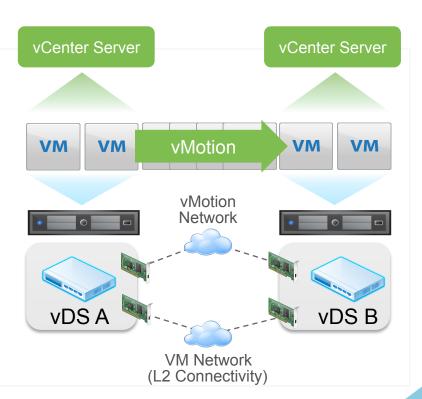
- Transparent operation to the guest OS
- Works across different types of virtual switches
  - vSS to vSS
  - vSS to vDS
  - vDS to vDS
- Requires L2 network connectivity
  - Does not change the IP of the VM
- Transfers vDS port metadata





## vCenter Server 6.0 - Cross vCenter vMotion

- Simultaneously changes
  - Compute
  - Storage
  - Network
  - vCenter
- vMotion without shared storage
- Increased scale
  - Pool resources across vCenter servers
- Targeted topologies
  - Local
  - Metro
  - Cross-continental





## vCenter Server 6.0 - Long Distance vMotion

- Cross-continental distances up to 100ms RTTs
- Maintain standard vMotion guarantees
- Does not require VVOLs
- Use Cases:
  - Permanent migrations
  - Disaster avoidance
  - Multi-site load balancing
  - Follow the sun



# Cross vCenter vMotion Walk Through



# **Content Library**



## vCenter Server 6.0 - Content Library Overview

### Simple content management

- VM templates, vApps, ISO images, Scripts
  Store and manage content
- One central location to manage all content
  - Beyond templates within vCenter
- Support for other file types

#### Share content

- Store once, share many times
  - Publish/Subscribe
- vCenter -> vCenter
- vCloud Director -> vCenter

#### Consume content

Deploy templates to a host or a cluster





# What about existing VM templates?

	VM Templates	Content Library
Cross vCenter Sync	×	<b>√</b>
ESX Host agnostic	×	
Deploy to VDC	×	
VDC Policies	×	
OVF support	×	
Multi-VM support	×	
Storage format	.vmtx + .vmdk	.ovf + .vmdk
Container	Folders	Libraries



# **Content Library Walk Through**



# vSphere Web Client 6.0

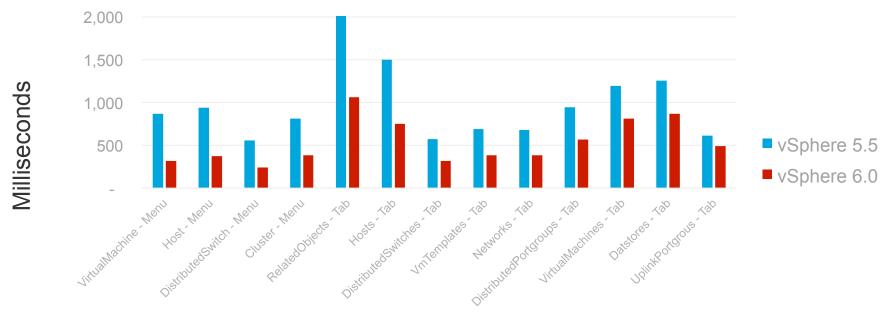


## vSphere Web Client

- Single Platform Support (Windows)
  - vSphere Web Client is Platform Agnostic
- Scalability Limits
  - Built to handle thousands of objects
- White Screen of Death
  - Performance
- Inconsistent look and feel across VMware solutions
  - Extensibility
- Workflow Lock
  - Pause current task and continue later right where you left off
  - Browser Behavior
- Upgrades
  - Upgrade a Single server side component



# **Web Client Performance Improvements**



Problem: Everything is slow.

Fix: Performance improvements made in as many common actions as possible



## Conclusion

- vCenter Server 6 has been redesigned and enhanced providing these important benefits:
  - Increased scalability with parity between Windows and Appliance versions
  - New simplified architecture with high availability options
  - Enhanced linked mode with global sharing of permissions, tags, licenses, etc.
  - Cross vCenter Server and Long Distance vMotion
  - Content Library for shared templates and images across vCenter Servers
  - Drastically improved vSphere web client performance



### Resources

- PSC FAQ <a href="http://kb.vmware.com/kb/2113115">http://kb.vmware.com/kb/2113115</a>
- vCenter Availability Guide -<a href="http://www.vmware.com/files/pdf/techpaper/VMware-vCenter-Server6-Availability-Guide.pdf">http://www.vmware.com/files/pdf/techpaper/VMware-vCenter-Server6-Availability-Guide.pdf</a>
- Deployment Guide -<a href="https://www.vmware.com/resources/techresources/10453">https://www.vmware.com/resources/techresources/10453</a>
- Feature Walk Through http://featurewalkthrough.vmware.com/#!/vsphere-6-0

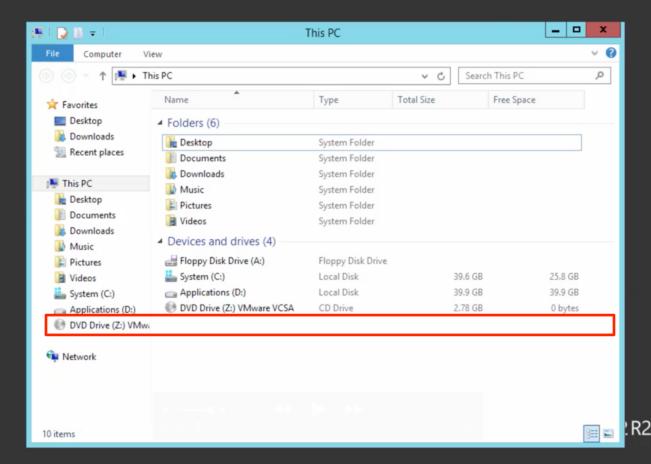


## VMware vSphere 6.0

vCenter Server Appliance 6.0 Installation with Embedded Platform Services Controller













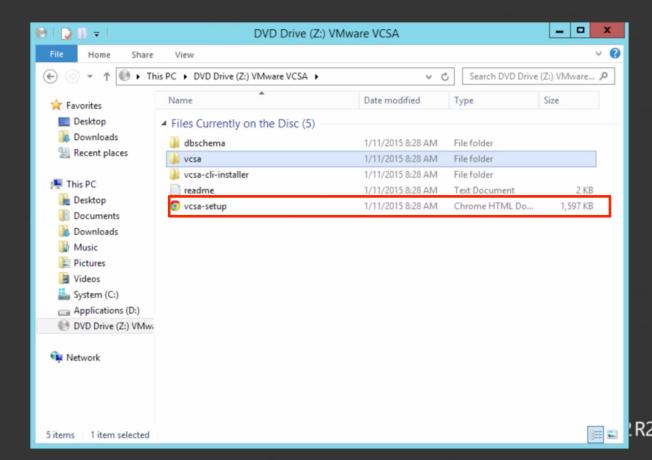












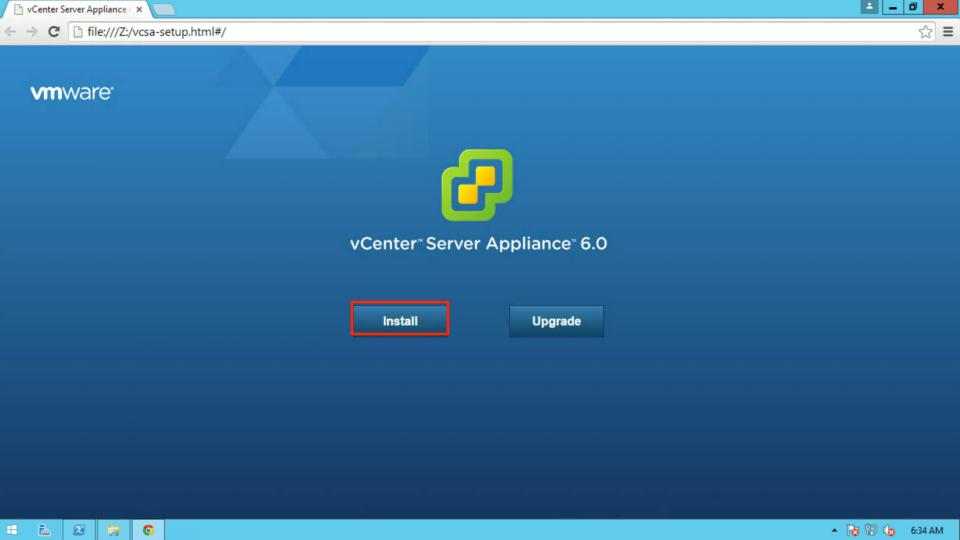


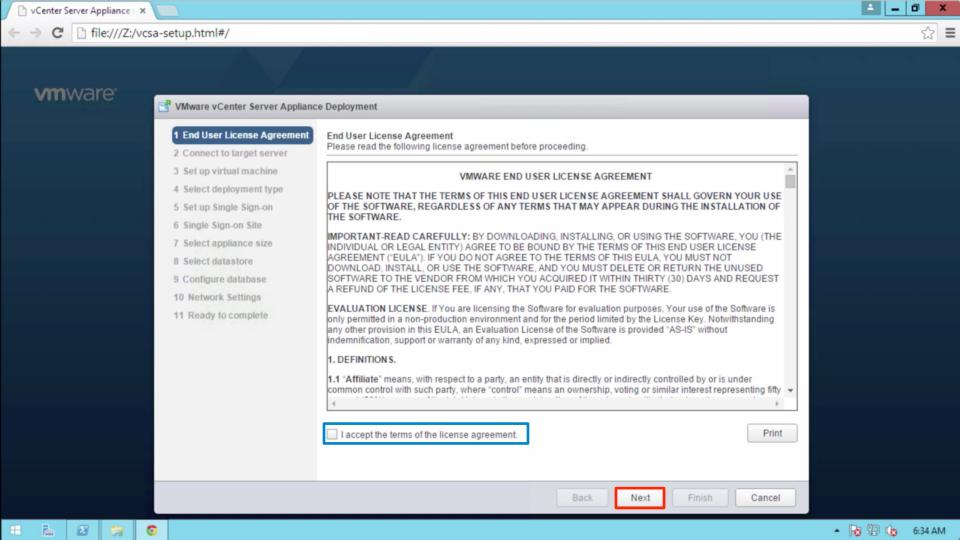


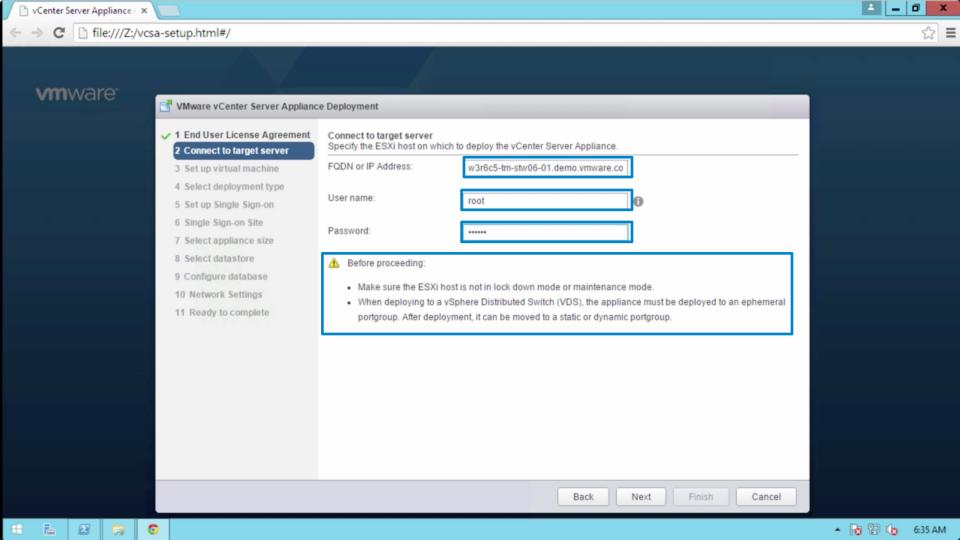


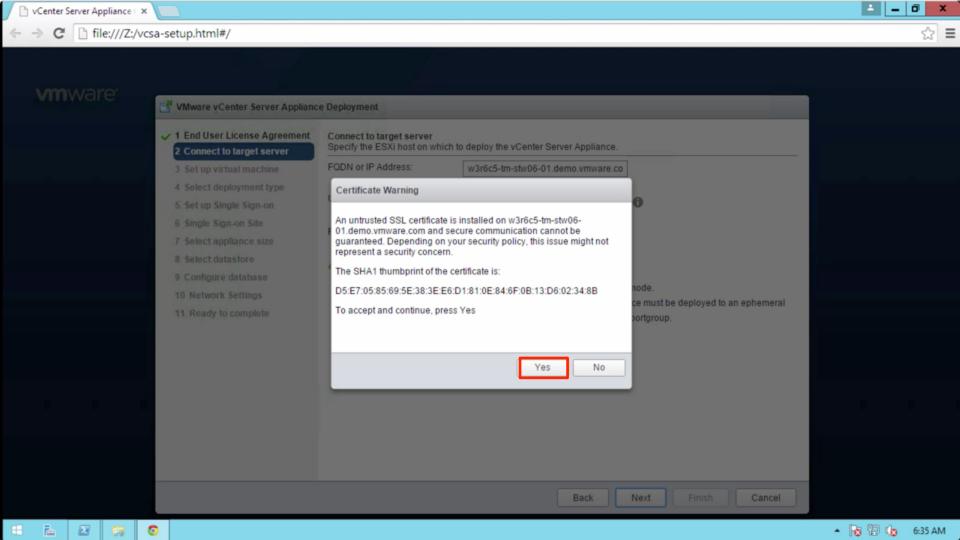


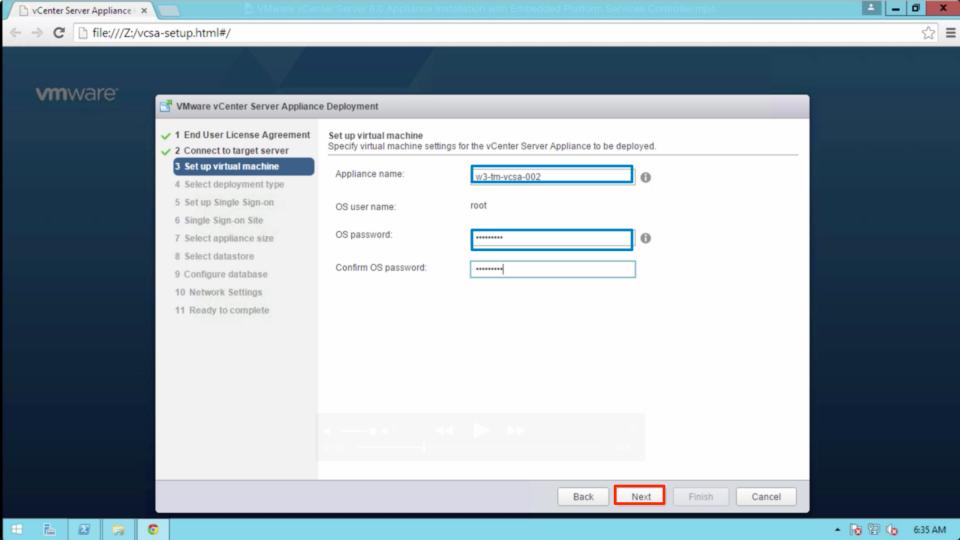


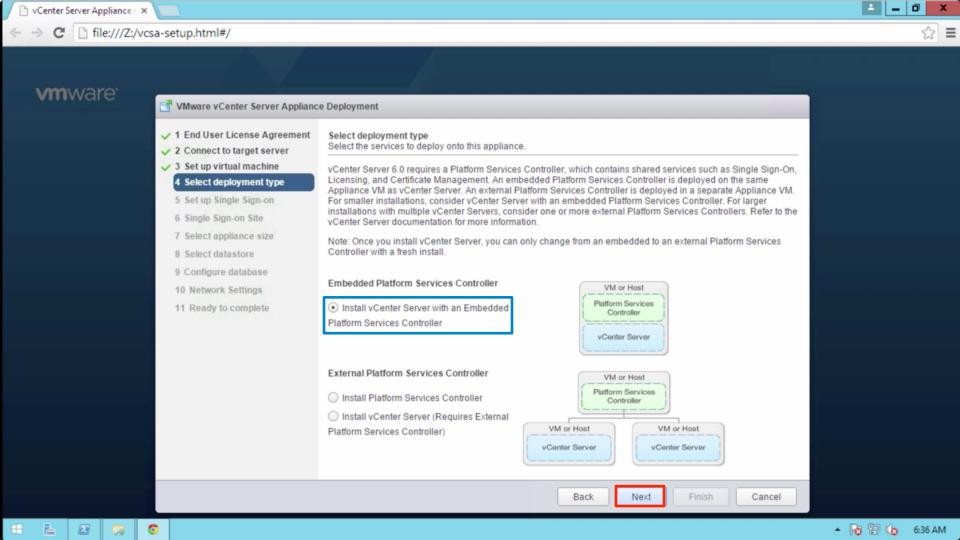


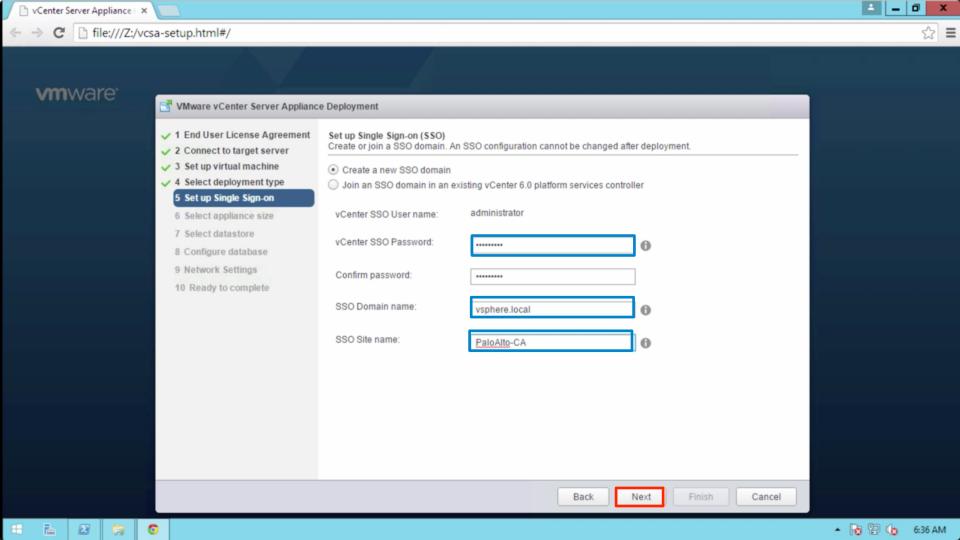


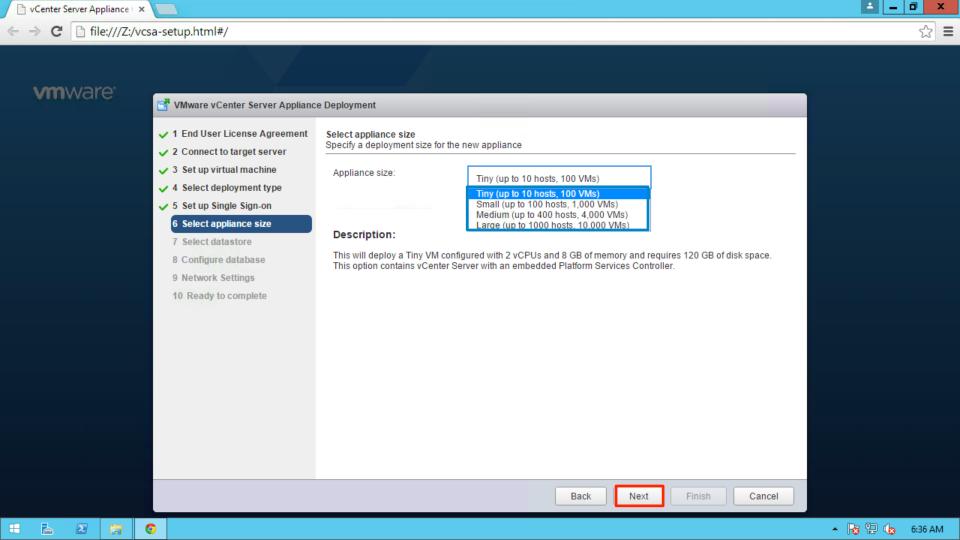


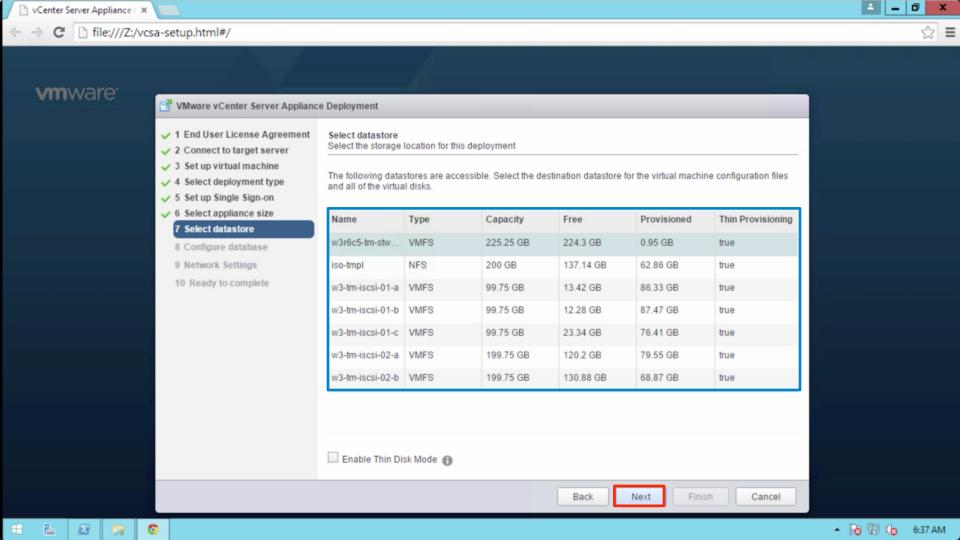


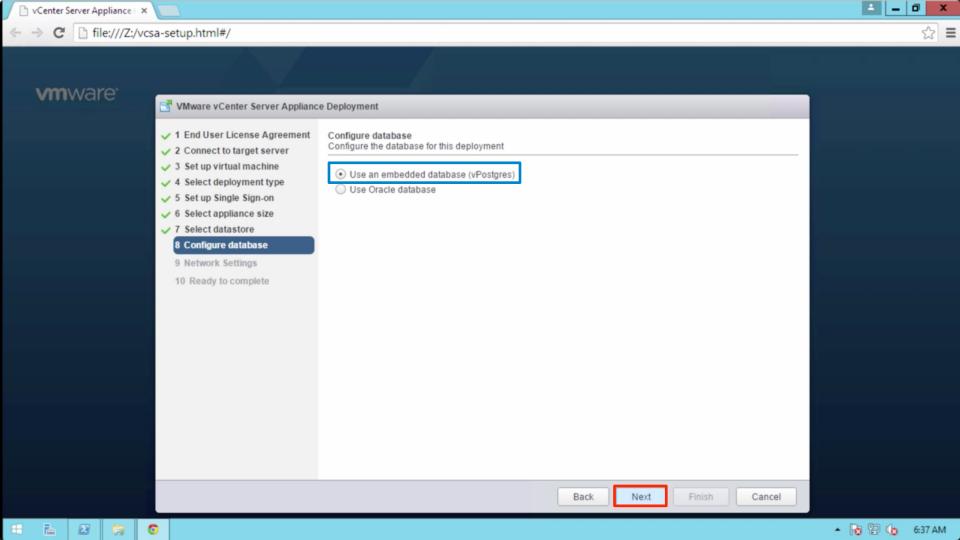


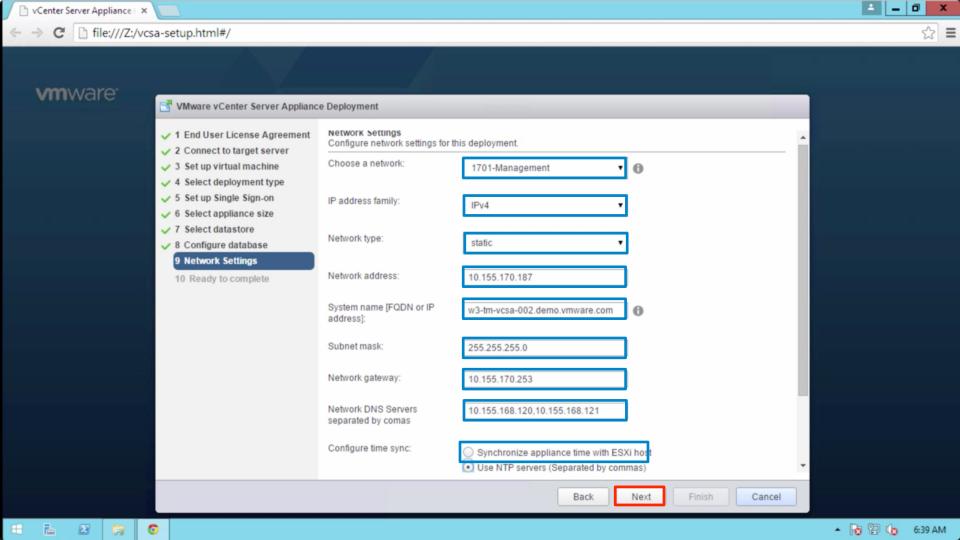


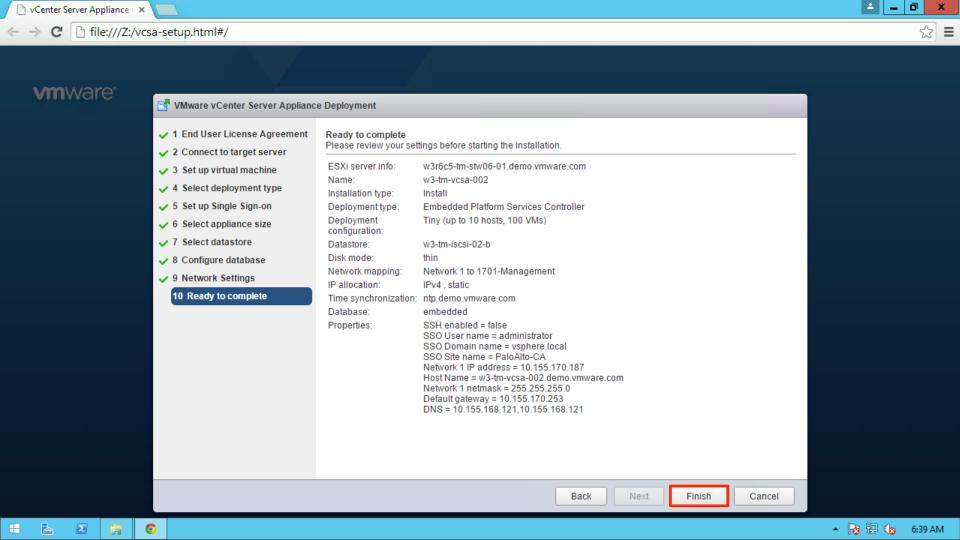


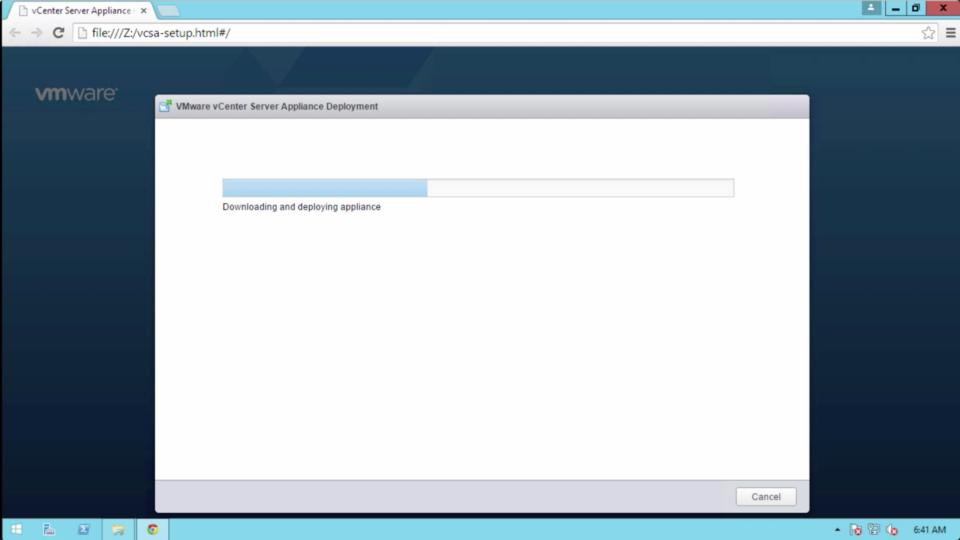


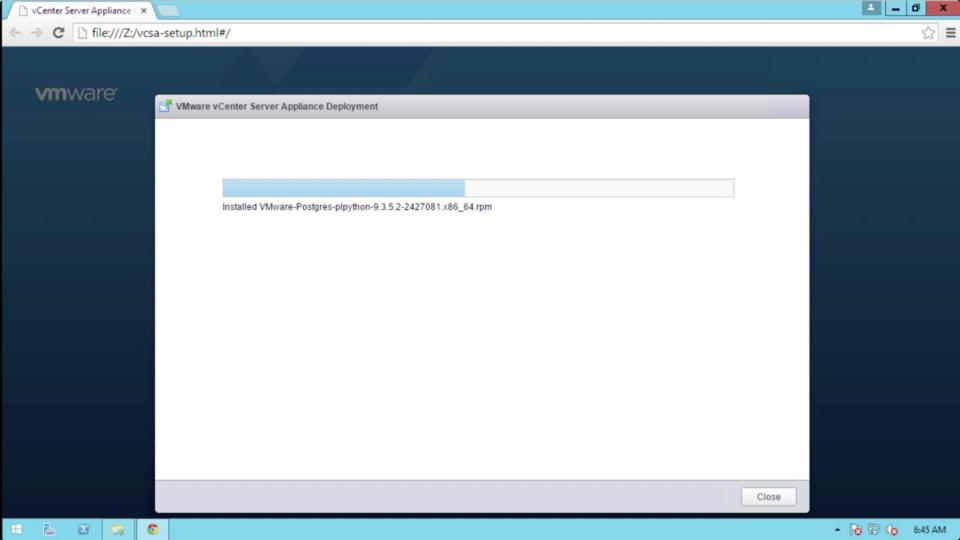


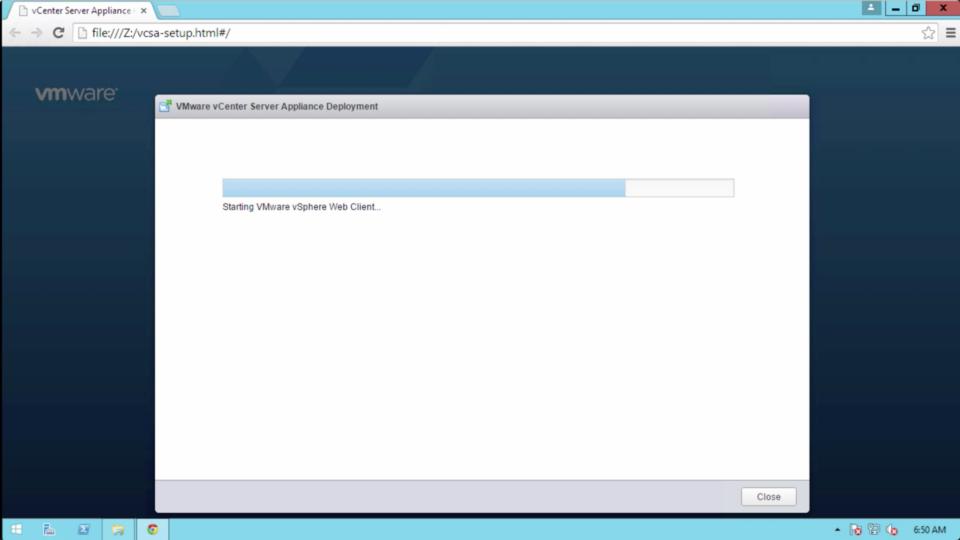


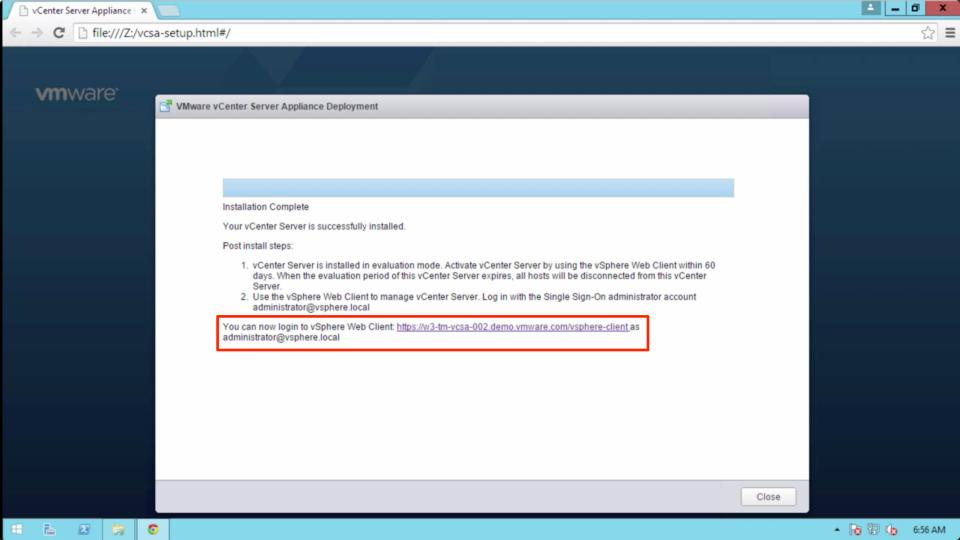


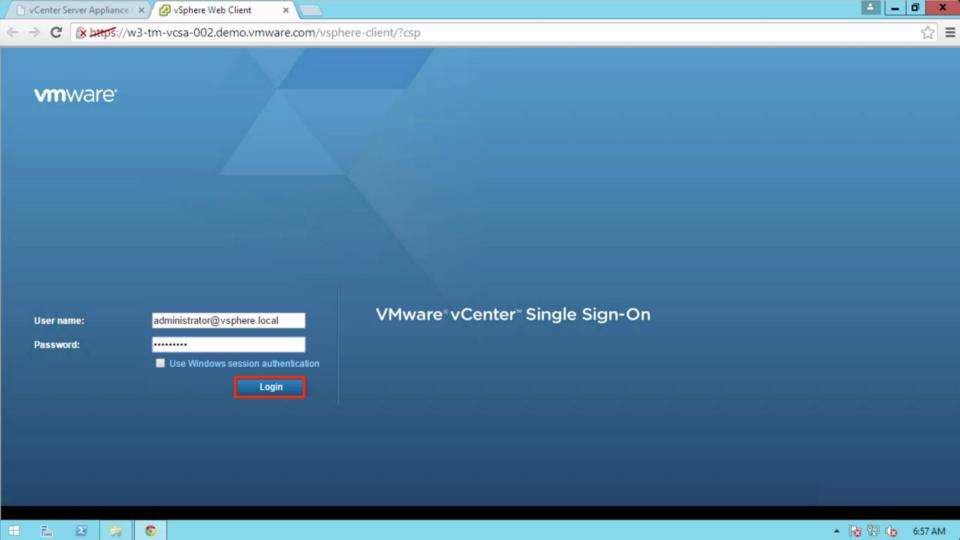


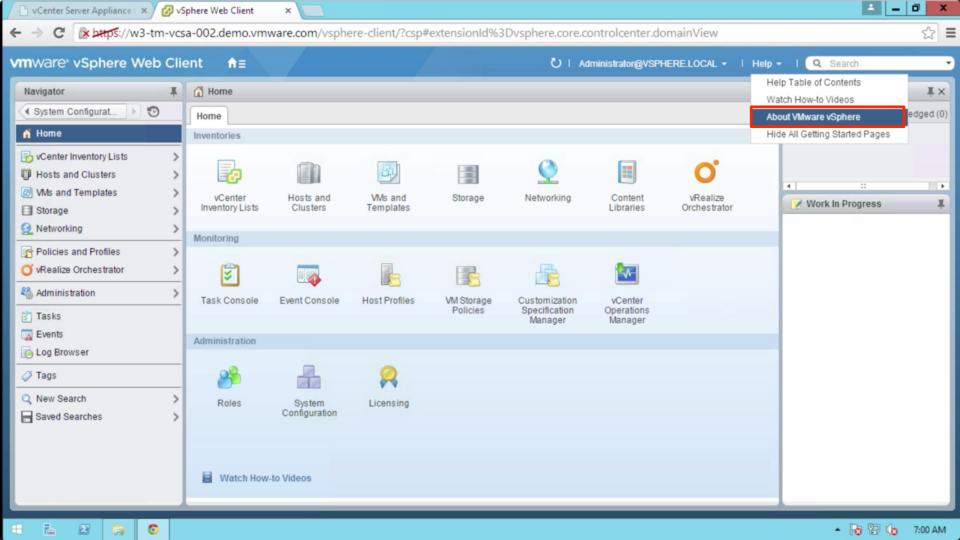


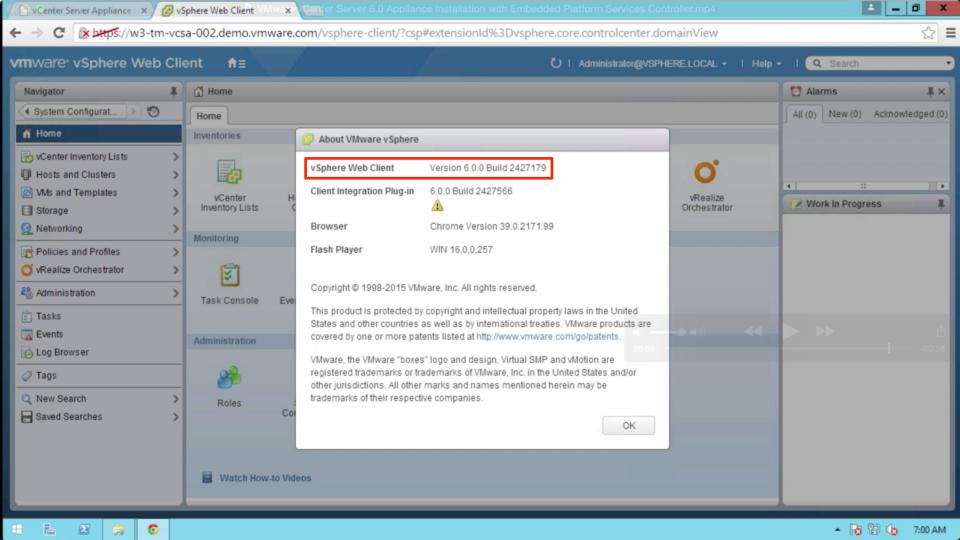






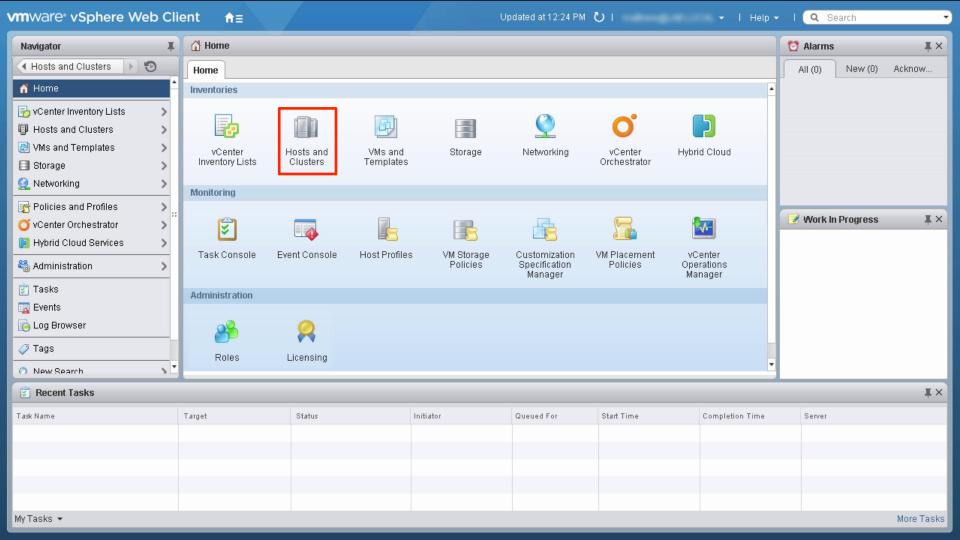


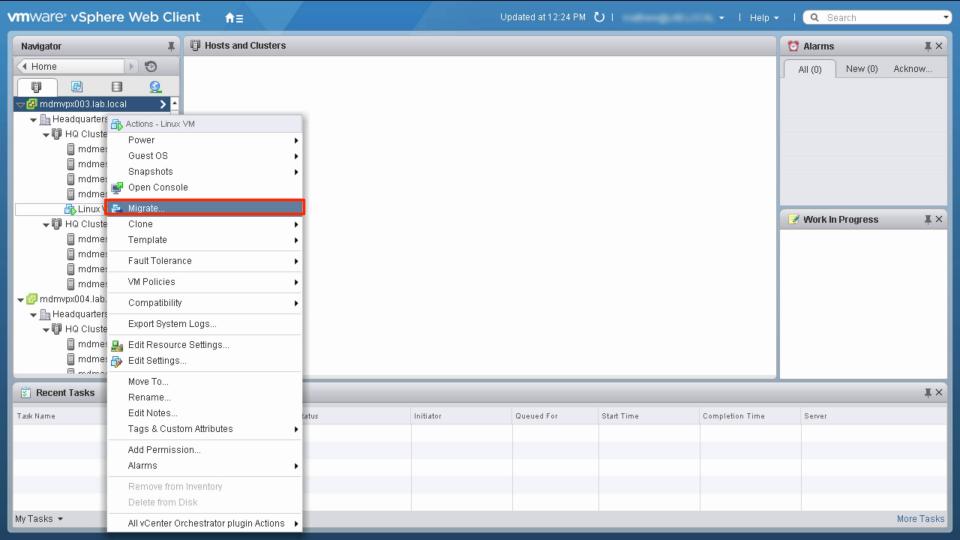


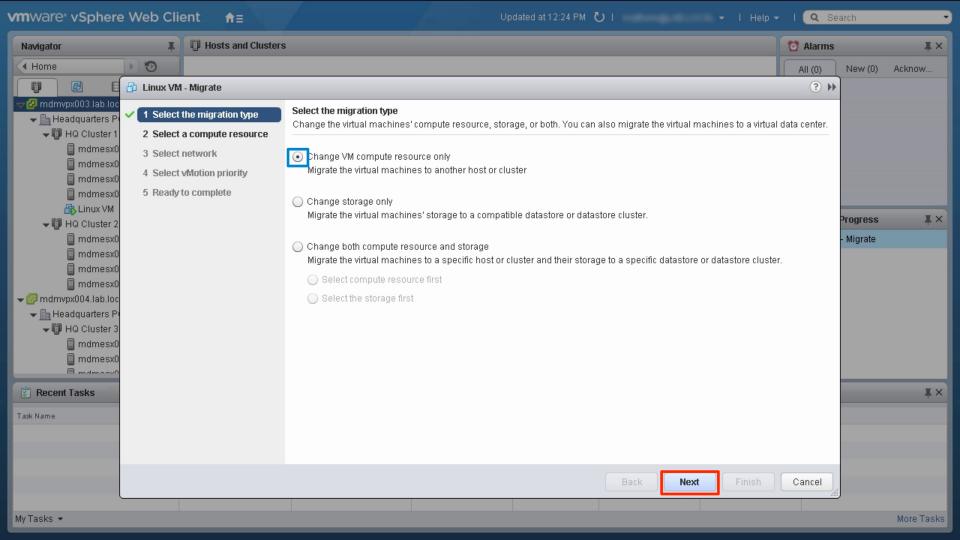


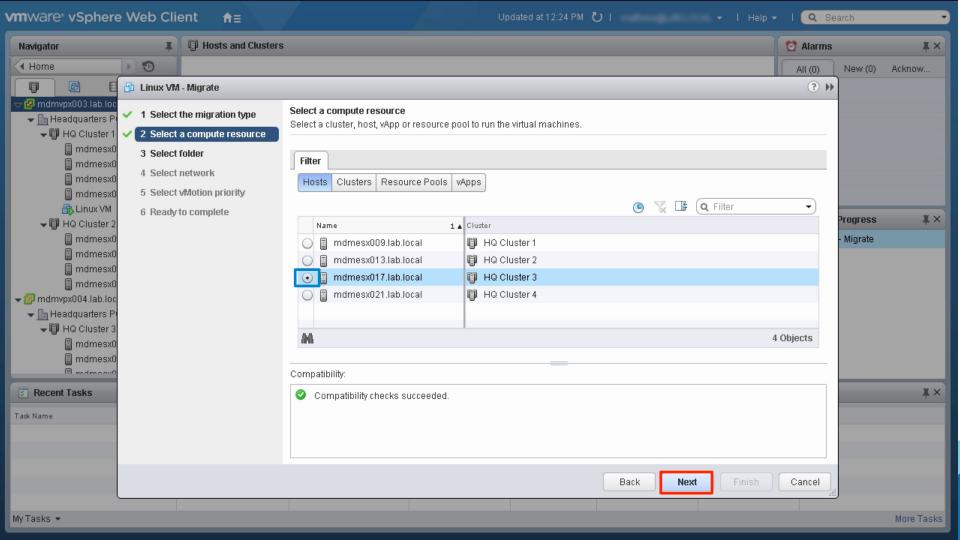
## VMware vSphere 6.0

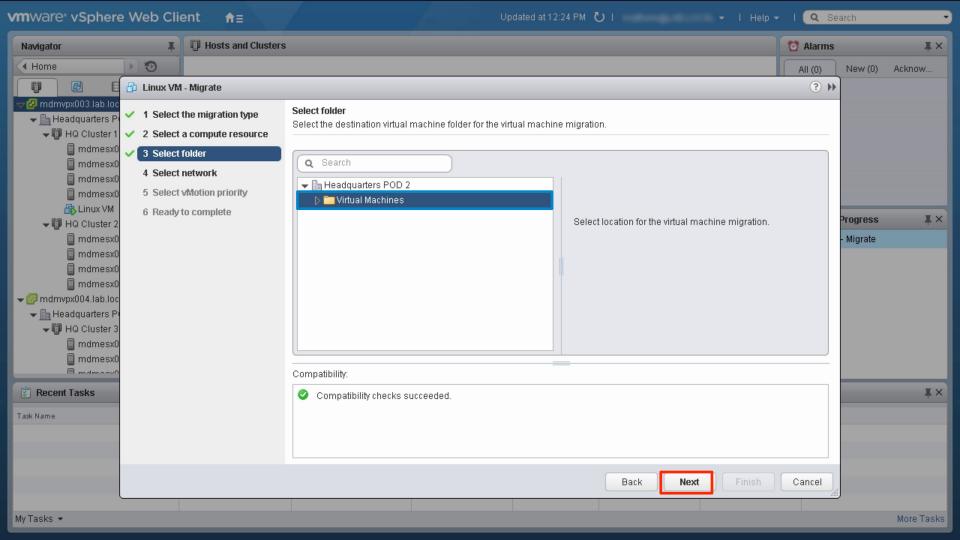
Cross vCenter vMotion

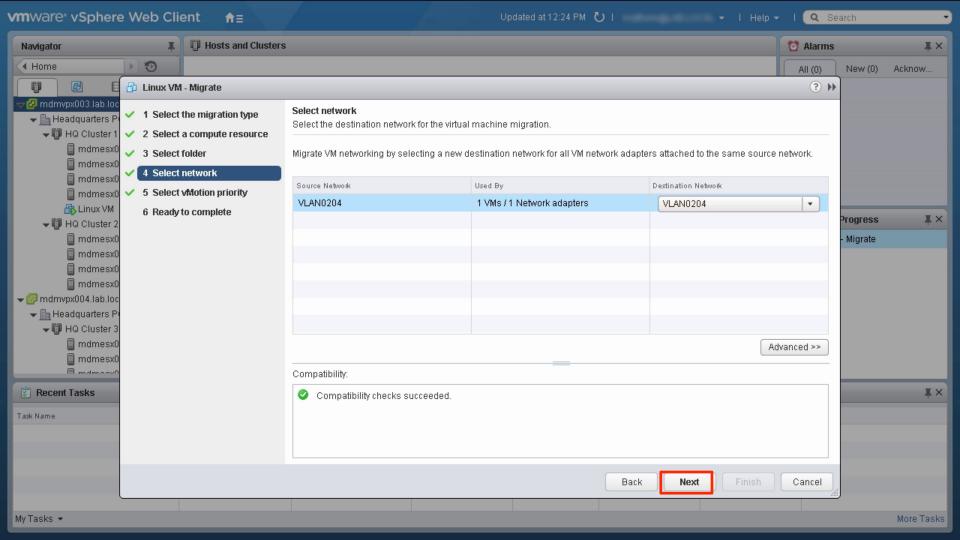


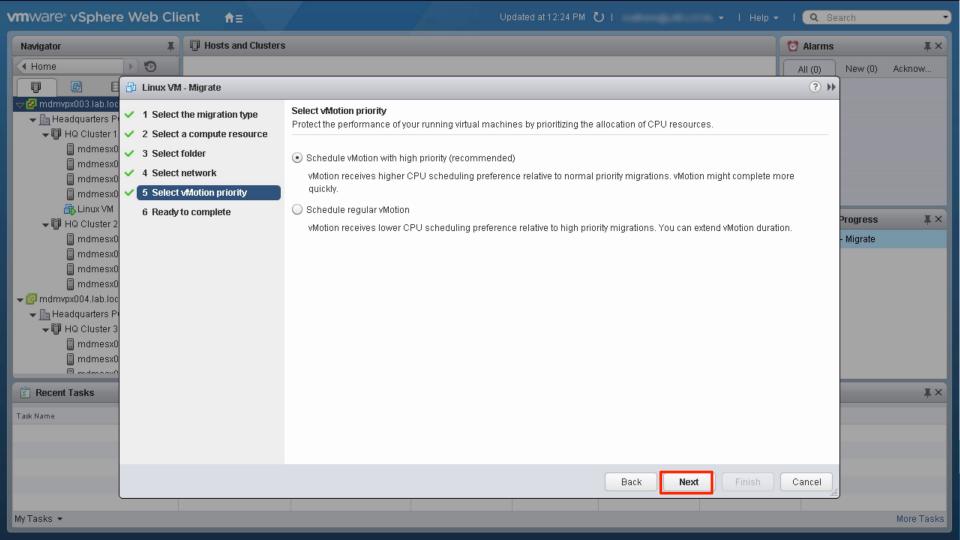


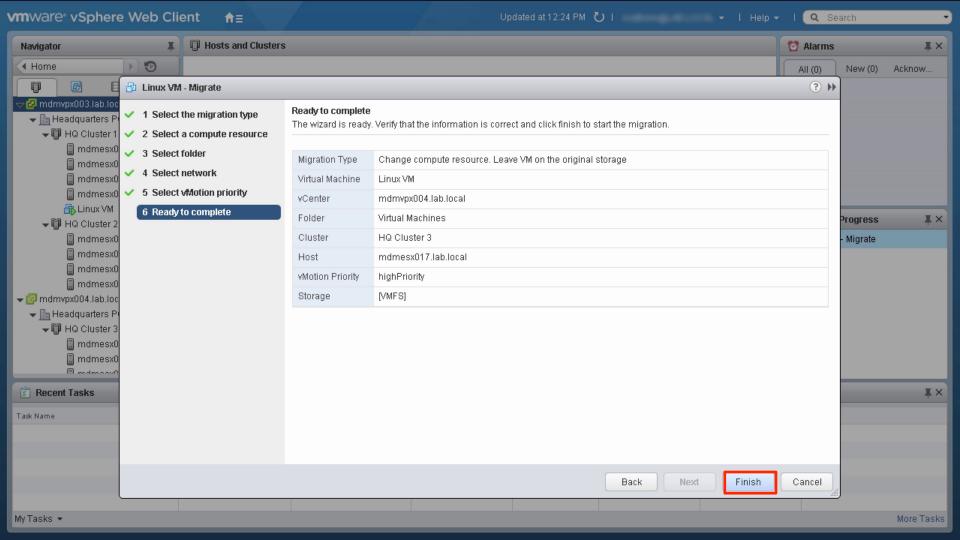


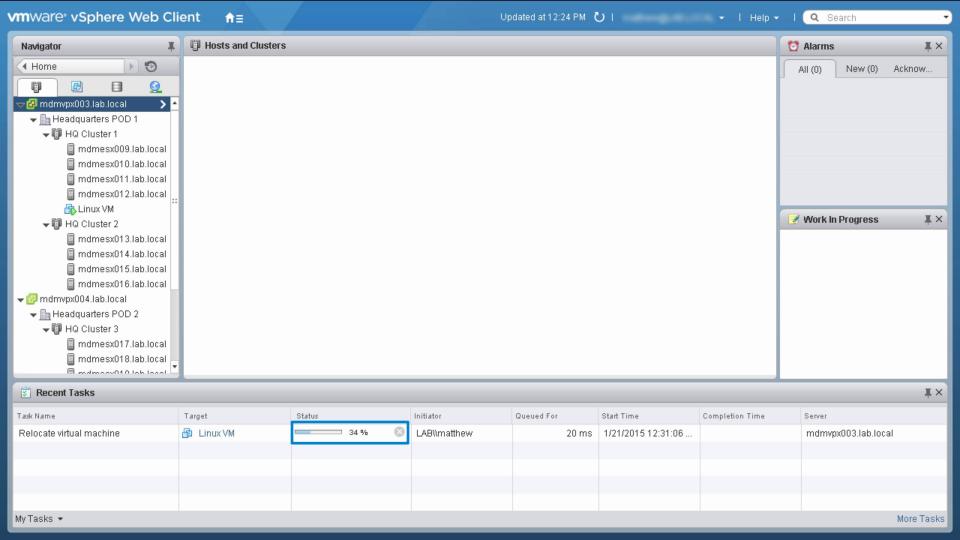


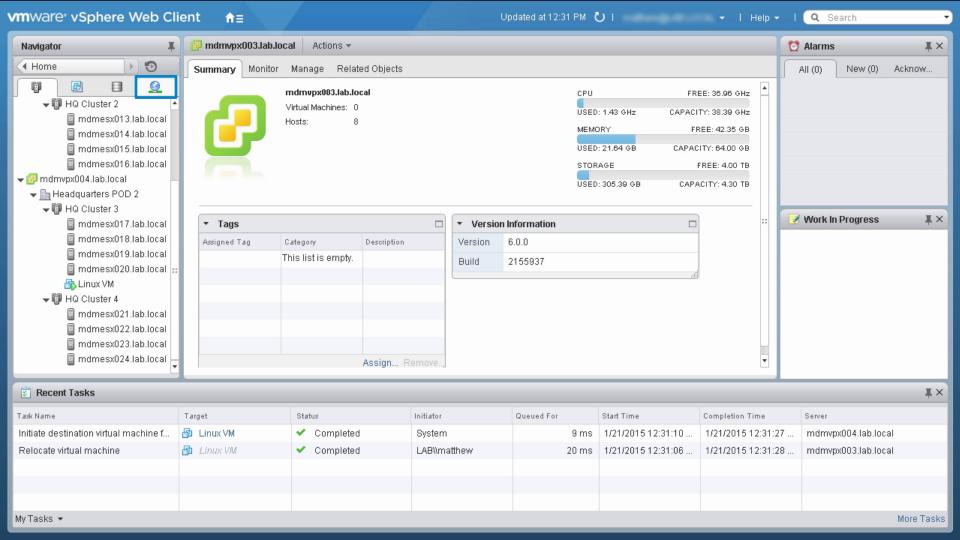


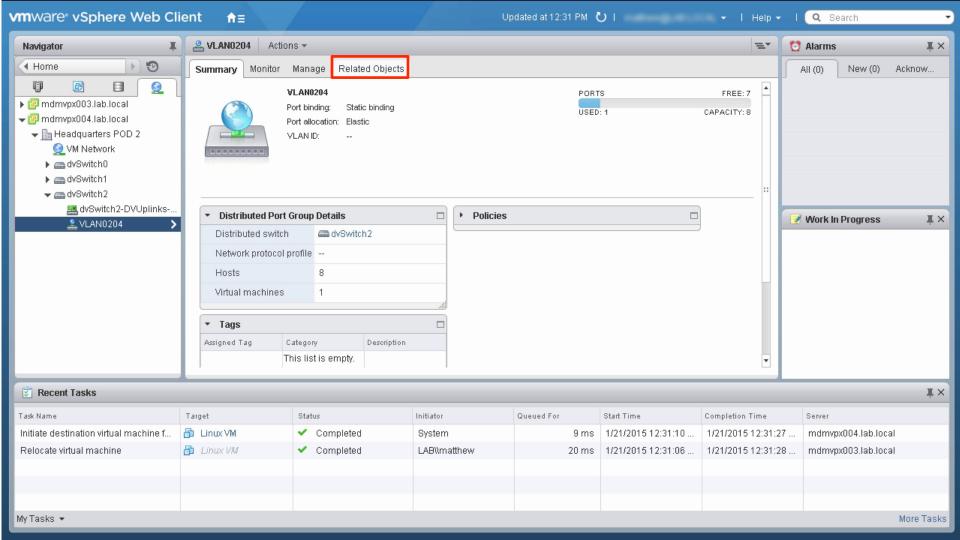


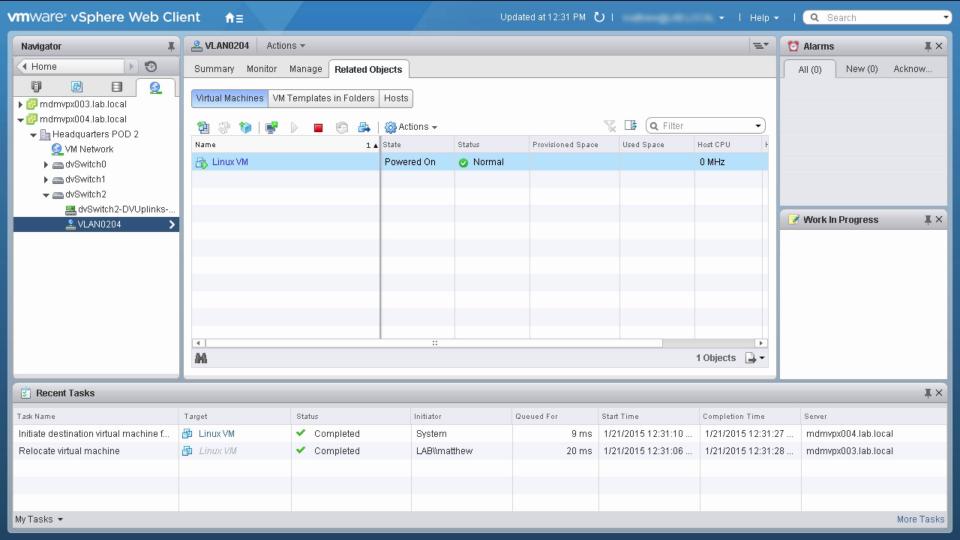












## VMware vSphere 6.0 Content Libraries

Subscribing to a Published Content Library

