



Sri Lanka Institute of Information Technology

**Enterprise Standards and Best Practices for IT
Infrastructure-2016**

VMotion

Submitted by:

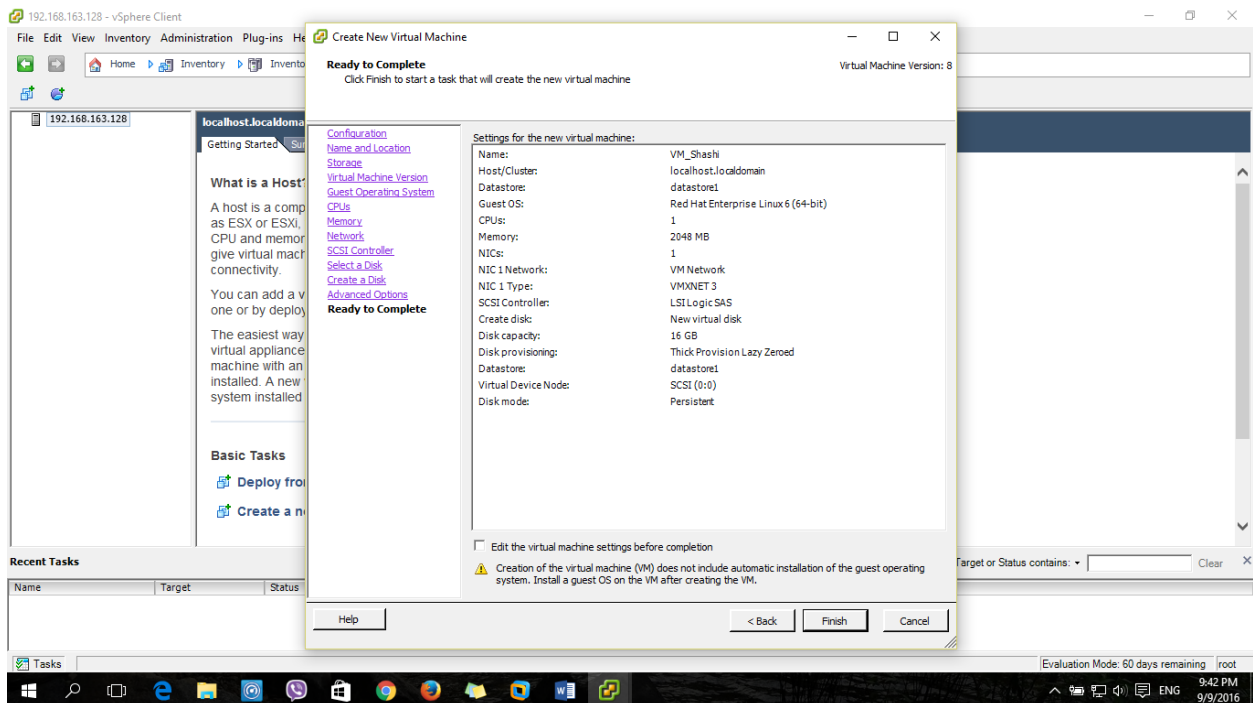
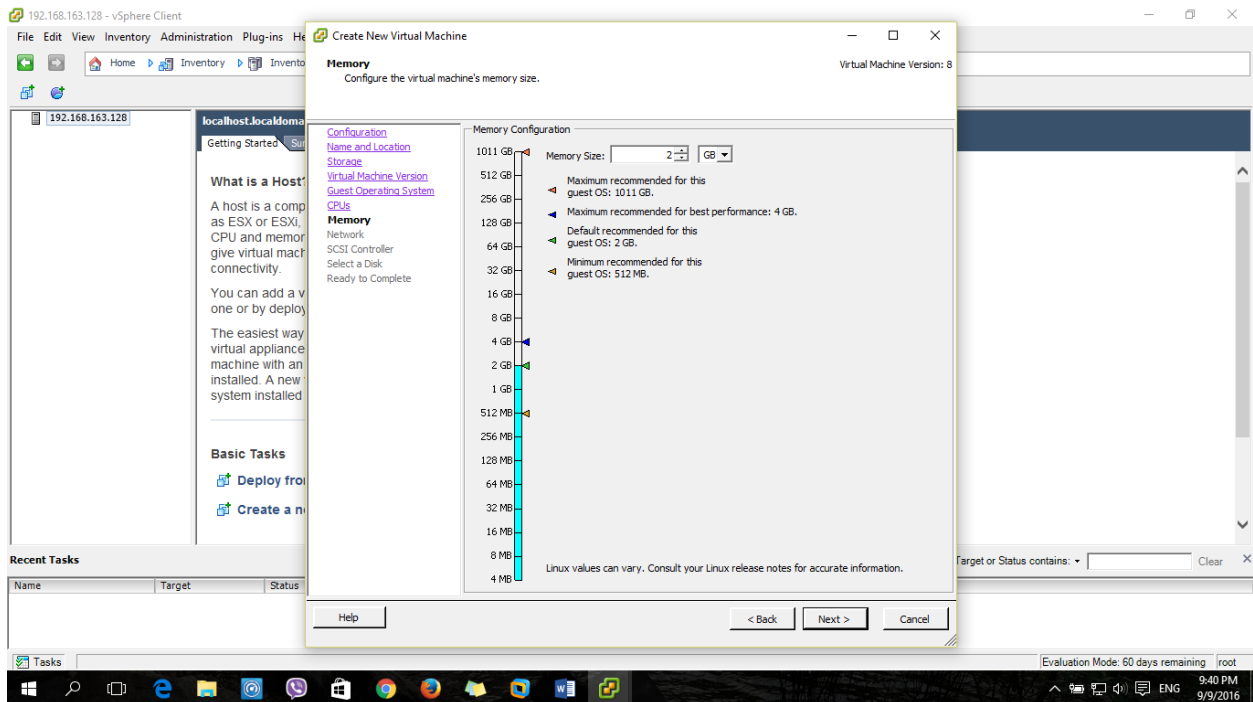
IT13038656: P.H.A.S.Rajapaksha

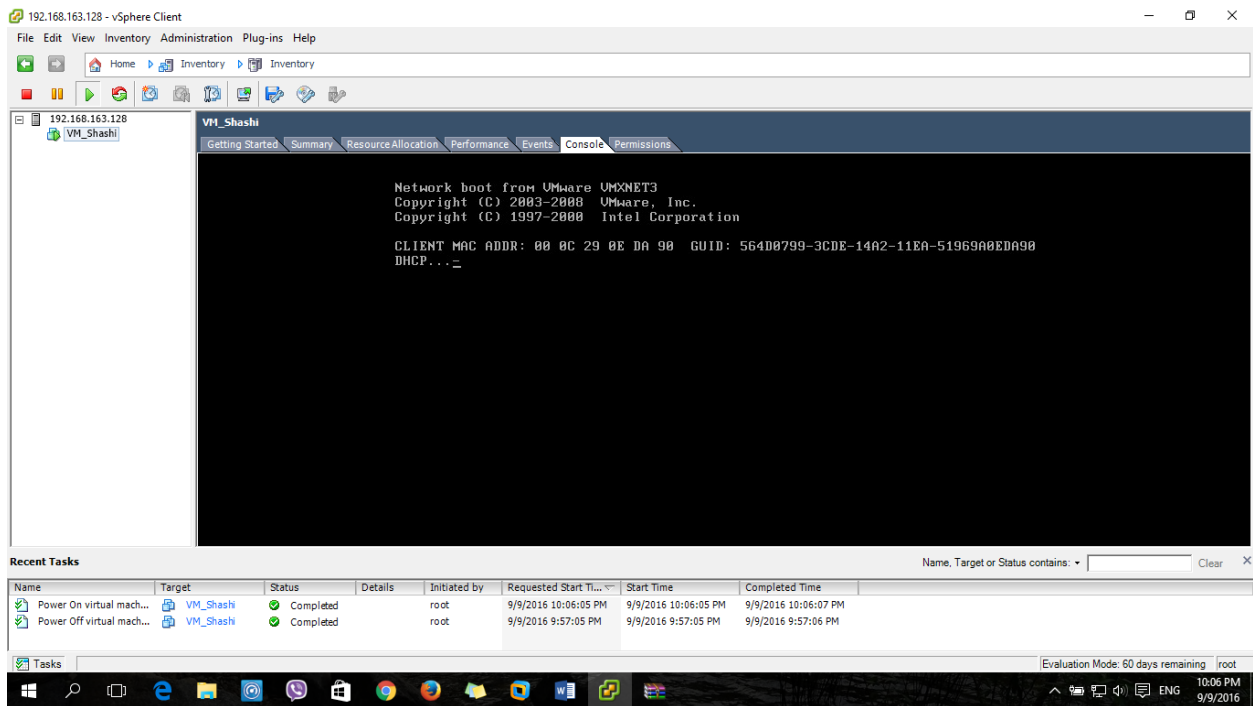
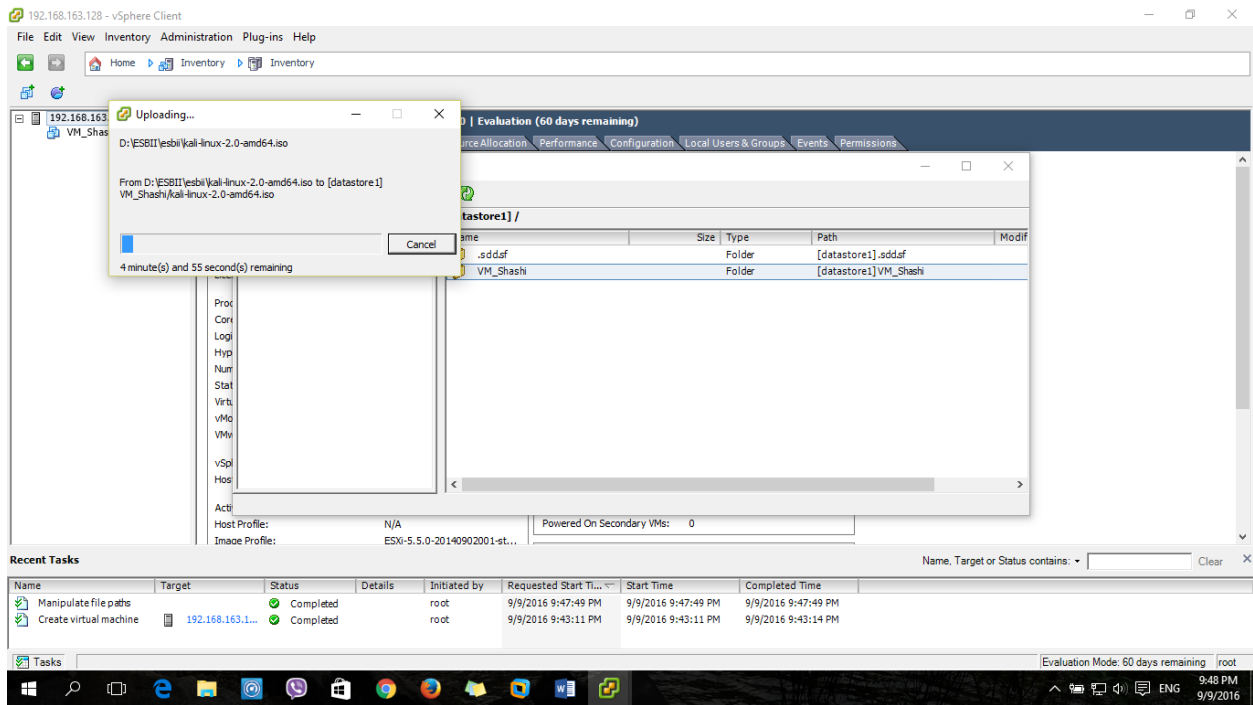
IT13037598: D.K.S. Hiddallaarchchi

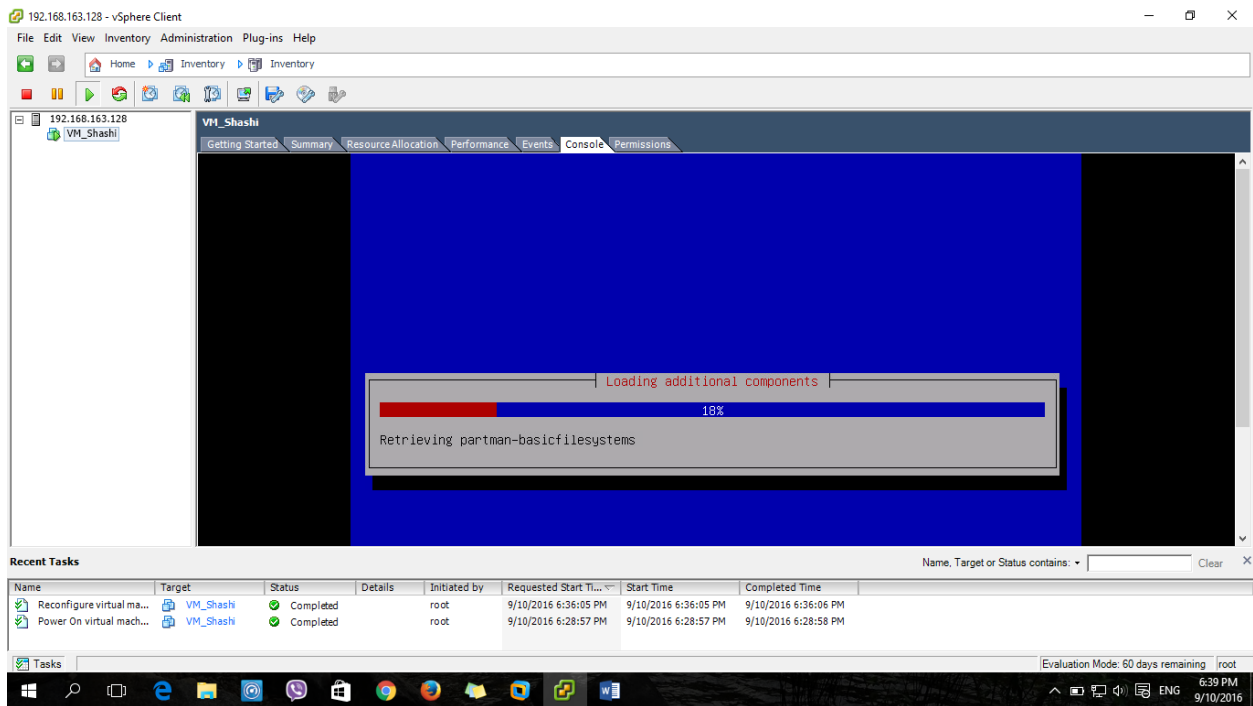
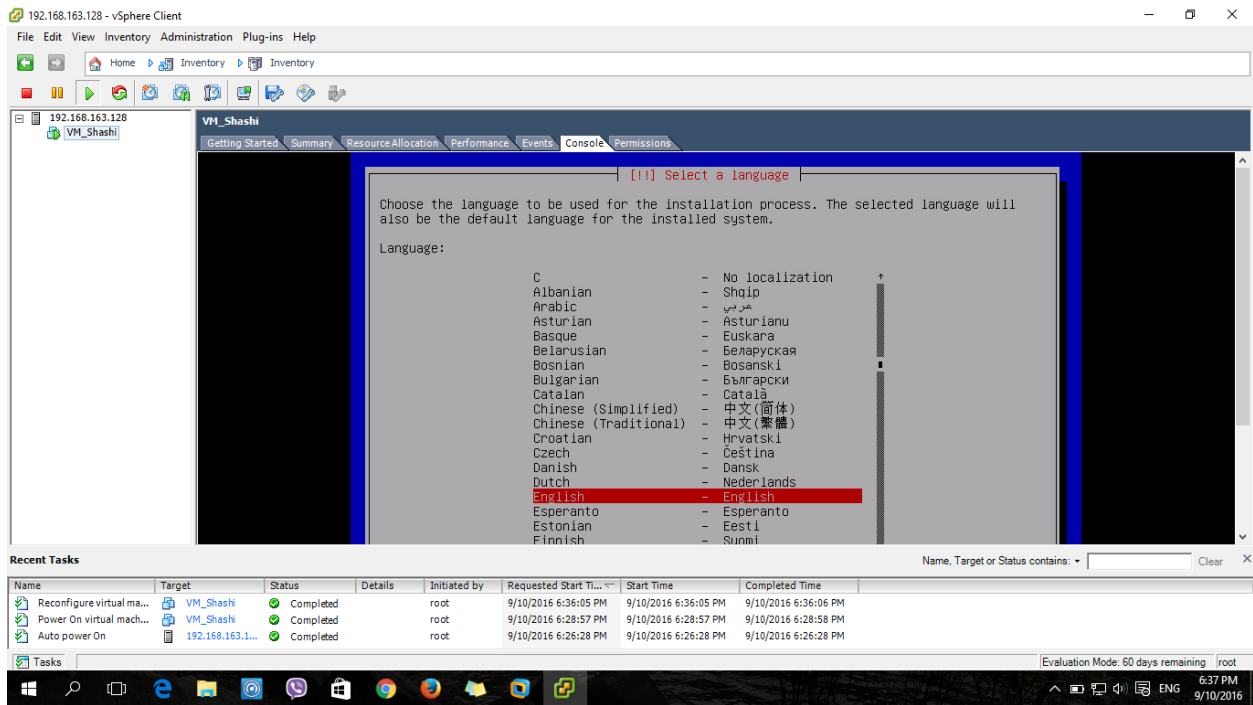
IT12088560: I.R. Edirisinghe

Step 1:

Install the Kali Linux first.







Step 2:

You can use the Migration wizard to migrate a powered-on virtual machine from one host to another using vMotion technology. To relocate the disks of a powered-on virtual machine, migrate the virtual machine using Storage vMotion.

Prerequisites

Before migrating a virtual machine with vMotion, ensure that your hosts and virtual machines meet the requirements for migration with vMotion.

- CPU compatibility
- vMotion interface (minimum 1 Gb adapter)
- shared central mass storage
- same naming for virtual port groups
- sufficient resources on the target host
- at least one vSphere Essentials Plus license on the corresponding ESX host

Check the VM's configurations.

192.168.163.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.163.128 VM_Shashi

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

Hardware

- Health Status
- Processors
- Memory
- Storage
- Networking
- Storage Adapters
- Network Adapters
- Advanced Settings
- Power Management

Software

- Licensed Features
- Time Configuration
- DNS and Routing
- Authentication Services
- Virtual Machine Startup/Shutdown
- Virtual Machine Swapfile Location
- Security Profile
- Host Cache Configuration
- System Resource Allocation

Memory

Total	4095.5 MB
System	18.5 MB
Virtual Machines	4077.0 MB

Recent Tasks

Name	Target	Status	Details	Initiated by	Requested Start Time	Start Time	Completed Time
Power On virtual mach...	VM_Shashi	Completed		root	9/9/2016 10:15:21 PM	9/9/2016 10:15:21 PM	9/9/2016 10:15:23 PM
Create virtual machine...	192.168.163.1...	Completed		root	9/9/2016 10:15:09 PM	9/9/2016 10:15:09 PM	9/9/2016 10:15:11 PM
Manipulate file paths		Completed		root	9/9/2016 10:09:24 PM	9/9/2016 10:09:24 PM	9/9/2016 10:09:24 PM

Tasks

Evaluation Mode: 60 days remaining root

10:19 PM 9/9/2016

192.168.163.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.163.128 VM_Shashi

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

Hardware

- Health Status
- Processors
- Memory
- Storage
- Networking
- Storage Adapters
- Network Adapters
- Advanced Settings
- Power Management

Software

- Licensed Features
- Time Configuration
- DNS and Routing
- Authentication Services
- Virtual Machine Startup/Shutdown
- Virtual Machine Swapfile Location
- Security Profile
- Host Cache Configuration
- System Resource Allocation

Network Adapters

Device	Speed	Configured	Switch	MACAddress	Observed IP ranges	Wake on LAN Supported
Intel Corporation 82545EM Gigabit Ethernet Controller (Copper)						
vmnic0	1000 Full	Negotiate	vSwitch0	00:0c:29:d6:0f:6b	None	No

Recent Tasks

Name	Target	Status	Details	Initiated by	Requested Start Time	Start Time	Completed Time
Power On virtual mach...	VM_Shashi	Completed		root	9/9/2016 10:15:21 PM	9/9/2016 10:15:21 PM	9/9/2016 10:15:23 PM
Create virtual machine	192.168.163.1...	Completed		root	9/9/2016 10:15:09 PM	9/9/2016 10:15:09 PM	9/9/2016 10:15:11 PM

Tasks

Evaluation Mode: 60 days remaining root

10:24 PM 9/9/2016

192.168.163.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.163.128 VM_Shashi

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

Hardware

- Health Status
- Processors
- Memory
- Storage
- Networking
- Storage Adapters
- Network Adapters
- Advanced Settings
- Power Management

Software

- Licensed Features
- Time Configuration
- DNS and Routing
- Authentication Services
- Virtual Machine Startup/Shutdown
- Virtual Machine Swapfile Location
- Security Profile
- Host Cache Configuration
- System Resource Allocation

View: vSphere Standard Switch

Networking

Refresh Add Networking... Properties...

Standard Switch: vSwitch0

Remove... Properties...

Virtual Machine Port Group

- VM Network
- 1 virtual machine(s)
- VM_Shashi

Physical Adapters

- vmnic0 1000 Full

VMkernel Port

- Management Network
- vmk0 : 192.168.163.128
- fe80::20c:29ff:fed6:f6b

Recent Tasks

Name	Target	Status	Details	Initiated by	Requested Start Time	Start Time	Completed Time
Power On virtual mach...	VM_Shashi	Completed		root	9/9/2016 10:15:21 PM	9/9/2016 10:15:21 PM	9/9/2016 10:15:23 PM
Create virtual machine	192.168.163.1...	Completed		root	9/9/2016 10:15:09 PM	9/9/2016 10:15:09 PM	9/9/2016 10:15:11 PM

Tasks

Evaluation Mode: 60 days remaining root

10:24 PM 9/9/2016

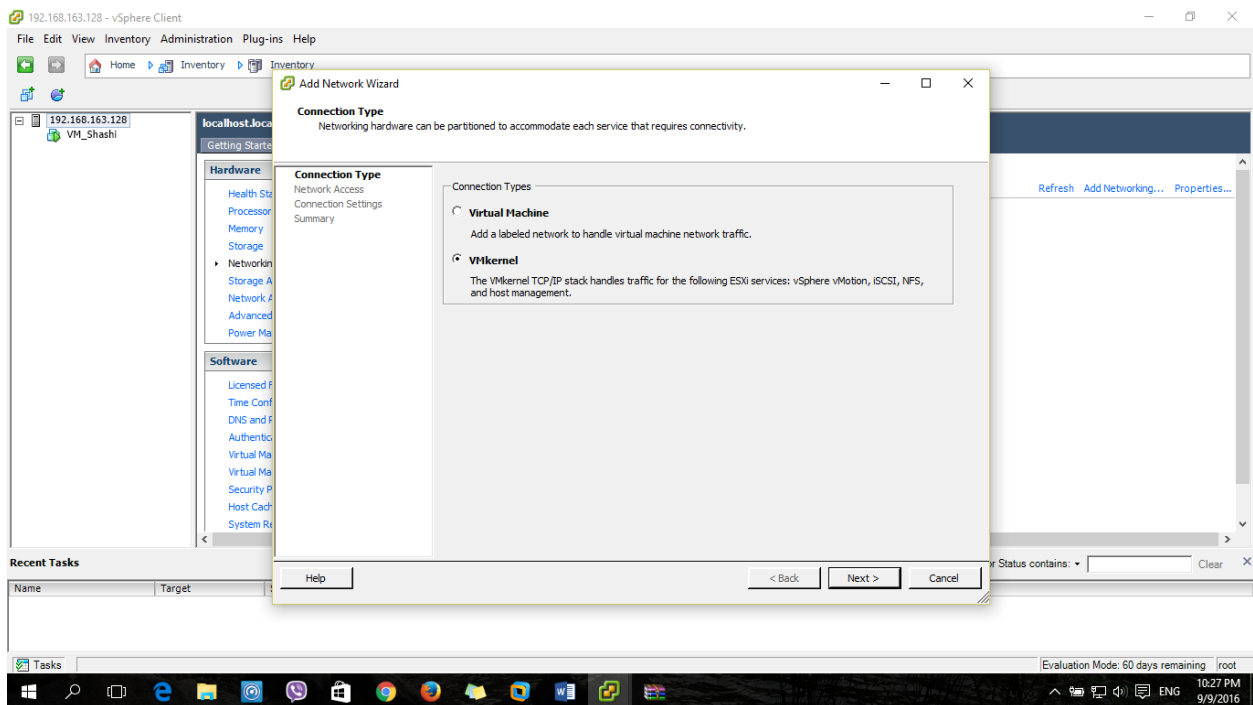
Step 3:

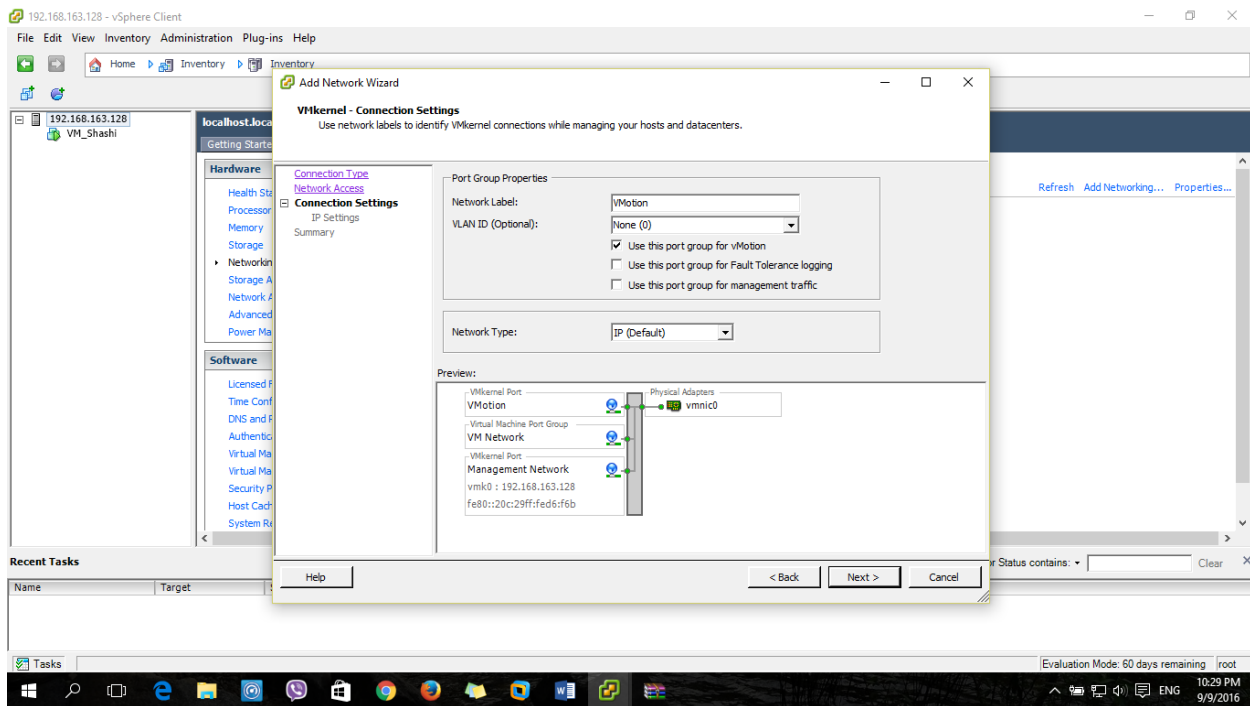
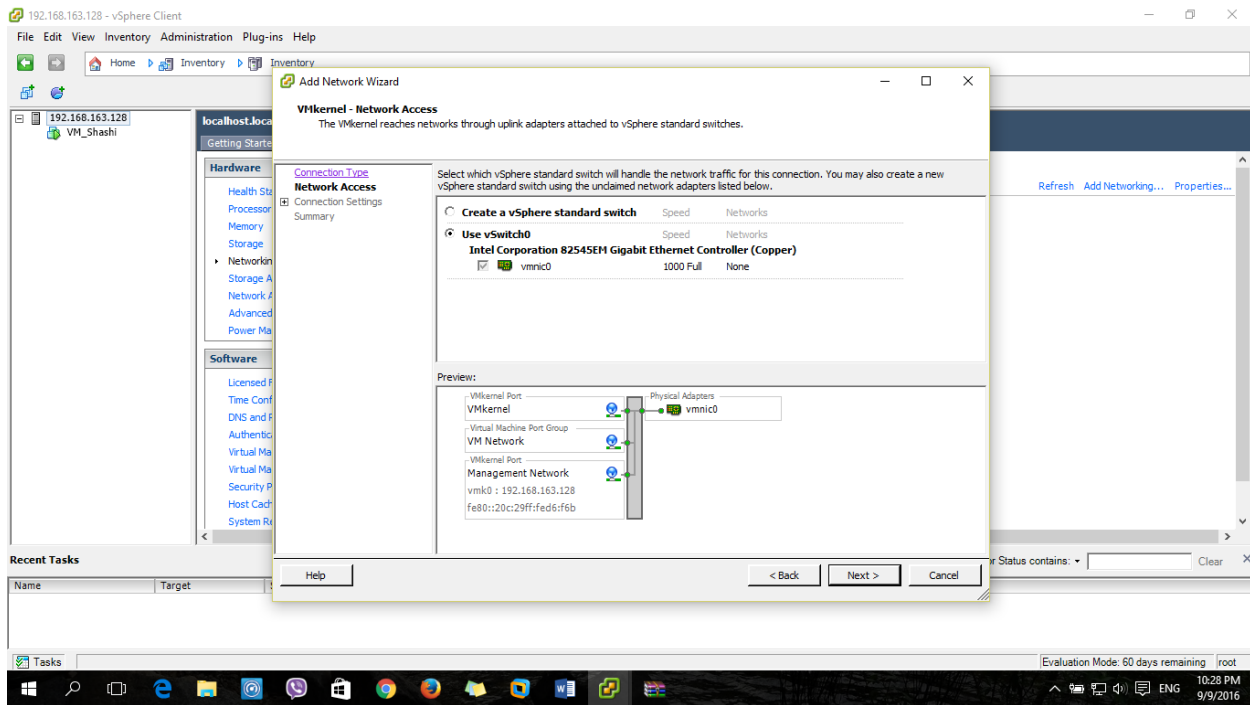
Network Configuration

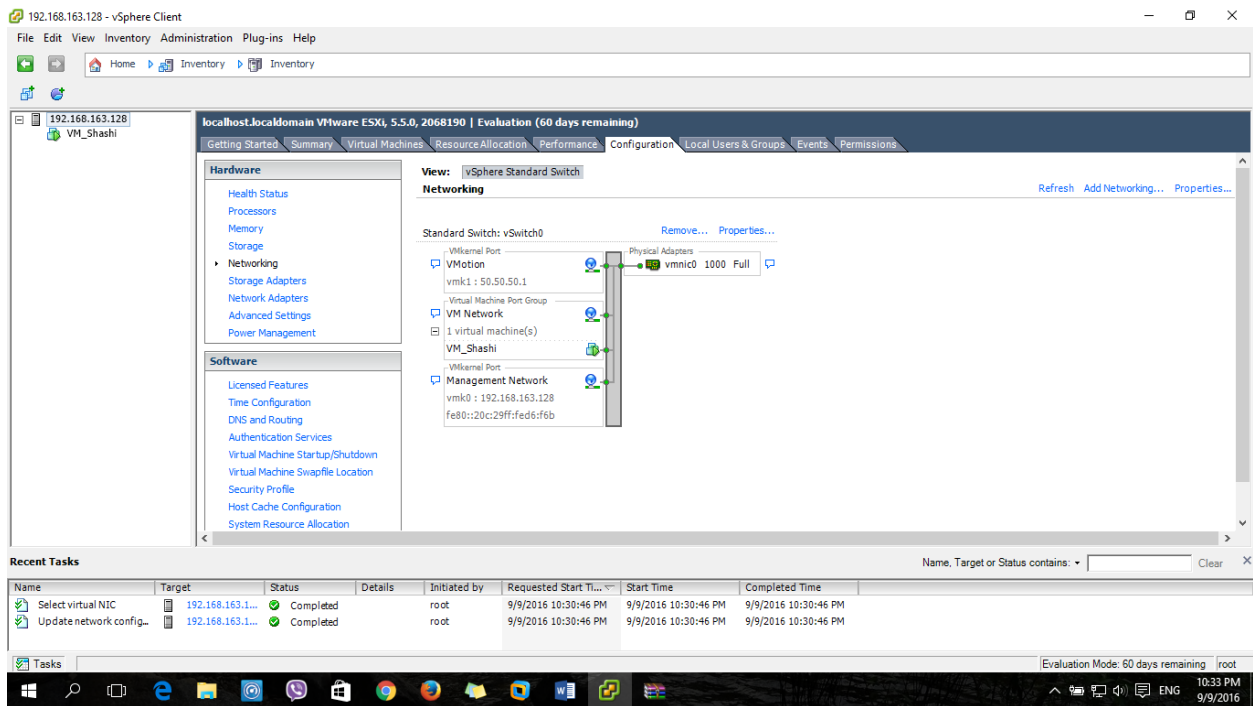
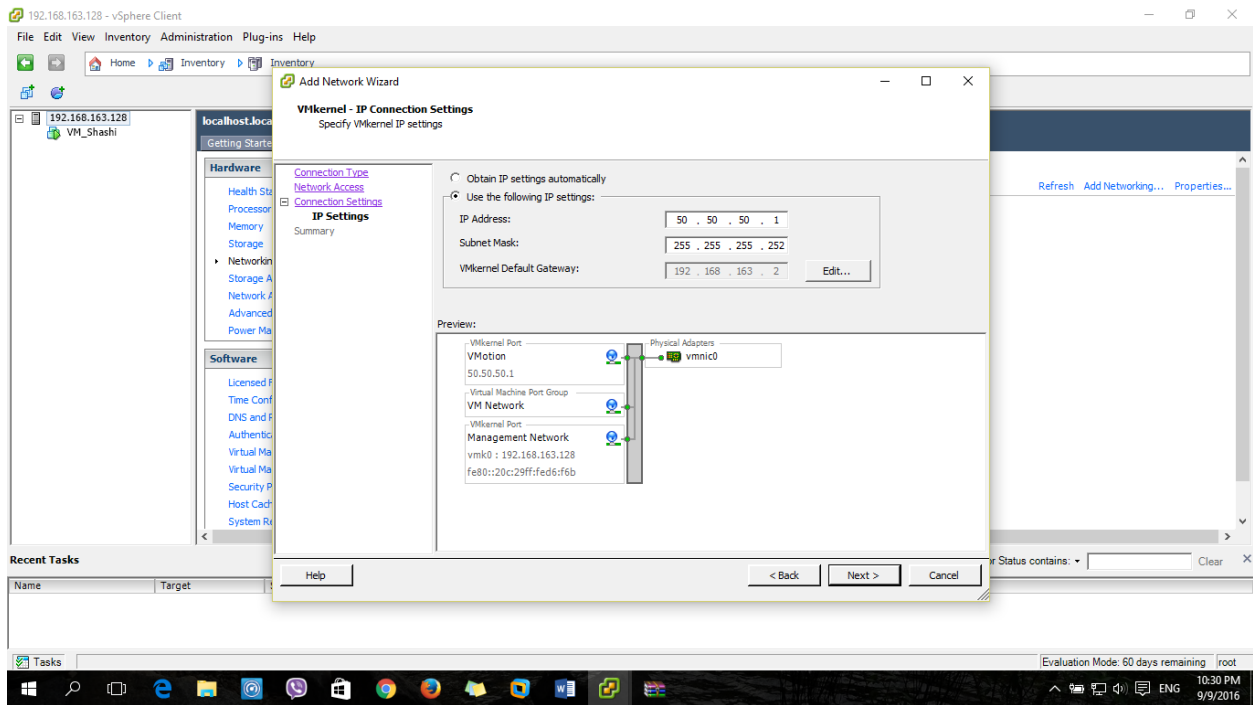
Configure the virtual networks on vMotion enabled hosts as follows:

- On each host, configure a VMkernel port group for vMotion.
- Ensure that virtual machines have access to the same subnets on source and destination hosts.

If you are using standard switches for networking, ensure that the network labels used for virtual machine port groups are consistent across hosts. During a migration with vMotion, vCenter Server assigns virtual machines to port groups based on matching network labels.







Summary

There are some issues with CPU affinity of the machines. VMotion cannot do successfully with the issues. We cannot use vMotion to migrate a virtual machine that is attached to a standard switch with no physical uplinks configured, even if the destination host also has a no-uplink standard switch with the same label.