

Experiment No: 6

AIM:Access ESXi Server from another VM and create multiple OS on top of ESXi 6.5 server.

1. Installation of ESXi Server on Virtual Machine
2. Accessing ESXi Server from client PC
3. Installation of OS on top of ESXi 6.5 server

REQUIREMENTS:

- VM Ware Workstation
- ESXi Server setup
- Windows 7 installer
- Windows 10 installer

SYSTEM CONFIGURATION:

- Windows Operating System
- RAM 8GB
- Storage Capacity 1TB

THEORY:VMware ESXi Server is computer virtualization software developed by VMware. The ESXi Server is an advanced, smaller-footprint version of the VMware ESX Server, VMware's enterprise-level computer virtualization software product. Implemented within the VMware Infrastructure, ESXi can be used to facilitate centralized management for enterprise desktops and data center applications. They run directly on server hardware and do not require the installation of an additional underlying operating system. This virtualization software creates and runs its own kernel, which is run after a Linux kernel bootstraps the hardware. The resulting service is a microkernel, which has three interfaces:

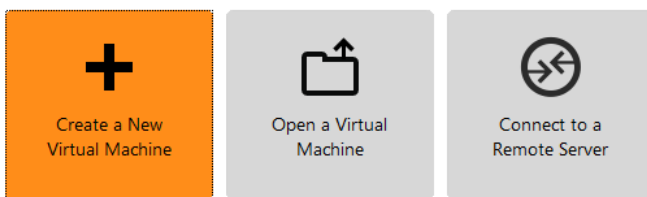
- Hardware
- Guest system
- Console operating system (service console).

PROCEDURE:

1. Installation of ESXi Server on Virtual Machine–

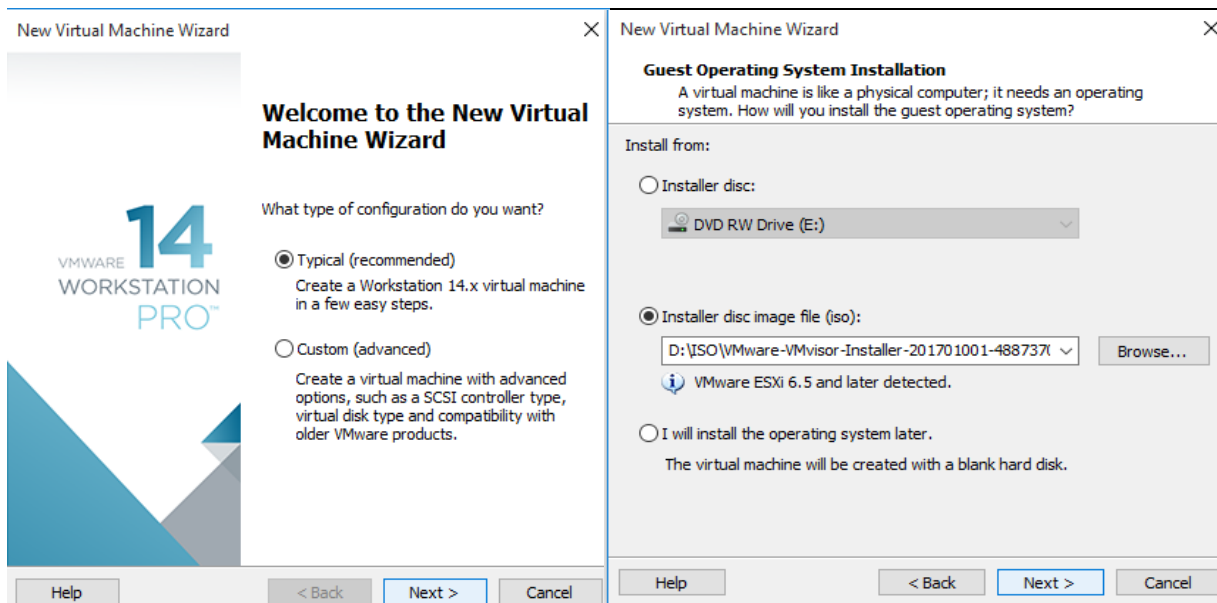
Step 1: Click on the Create a new virtual machine tab to install ESXi Server on the VMware.

WORKSTATION 14 PRO™



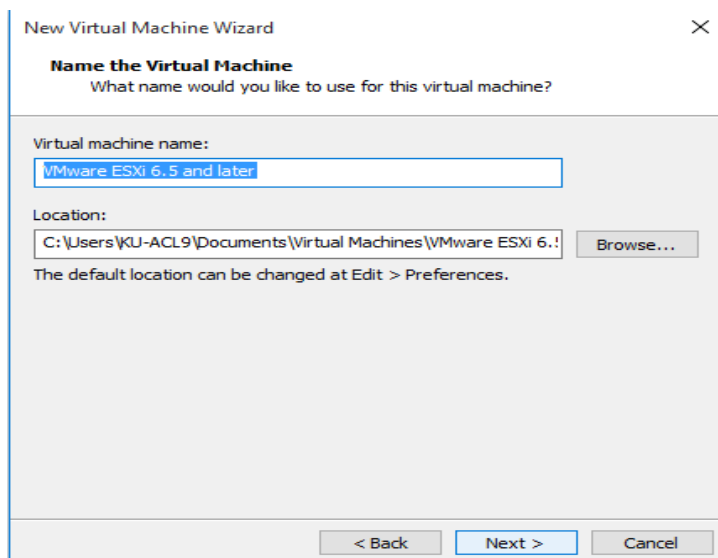
Step 2: (a) Selecting a virtual machine configuration – When you start the New Virtual Machine wizard, the wizard prompts you to select a typical or custom configuration.

(b) A Guest Operating System Installation window will be open. Select the installer disc image file option to load any operating system from the ISO folder.

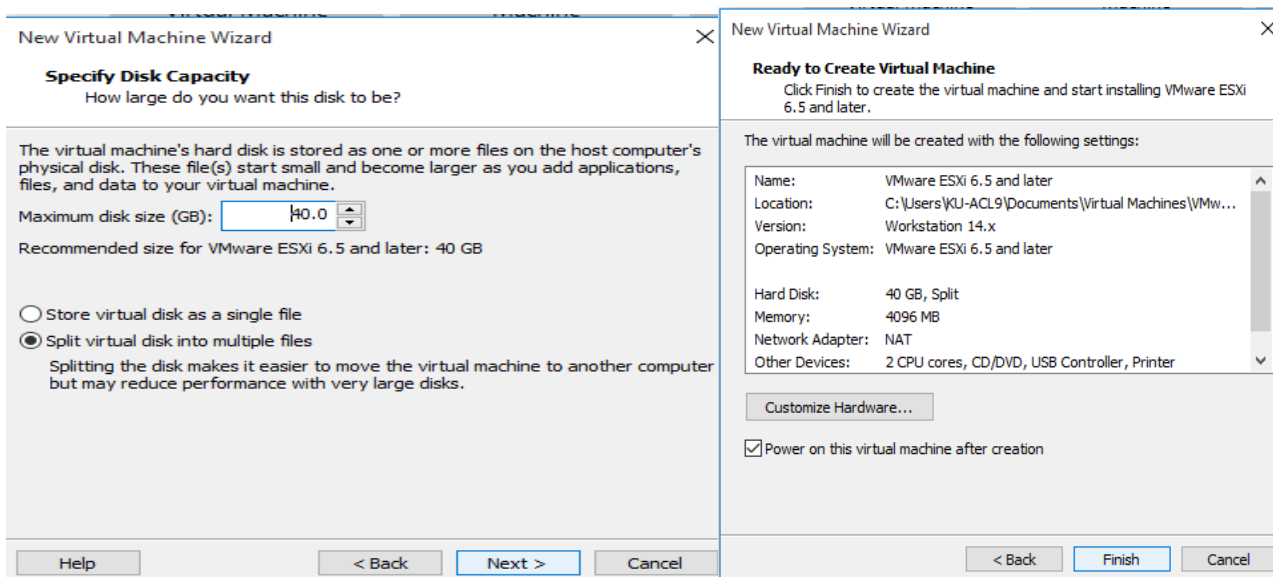


Step 3: Specifying the Virtual Machine Name and File Location –

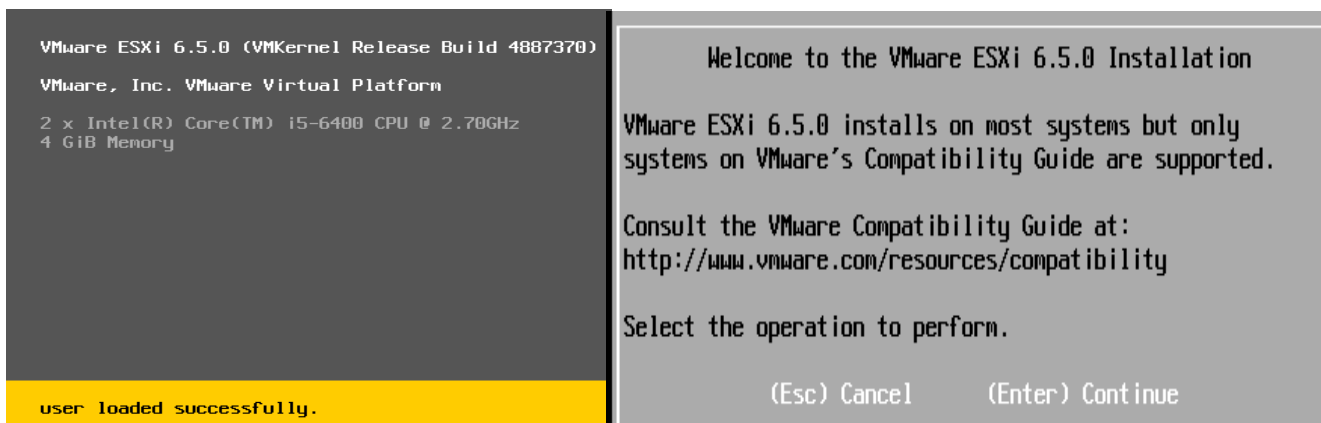
- The New Virtual Machine wizard prompts you for a virtual machine name and a directory for the virtual machine files.
- For standard virtual machines, the default directory for virtual machine files is located in the virtual machine directory. For best performance, do not place the virtual machines directory on a network drive.
- Click on the next button to process further.



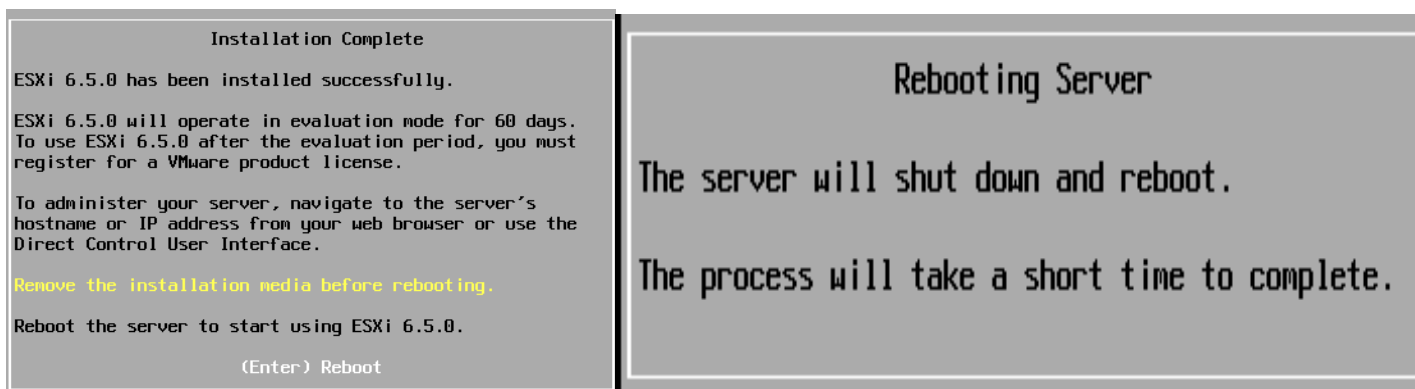
Step 4: Specifying Disk Capacity for a Virtual Machine. After that click finish to create the ESXi Server.



Step 5: ESXi Server installation process continues. After installation press enter to continue.



Step 6: Press enter to reboot. After that the server will shut down and reboot will start which will take some time.



Step 7: Press F2 to go to customize system. Before you proceed to customize system you need to enter an authorized login name and password for localhost.localdomain. After providing the name and password press enter to save and proceed to customize system.

Authentication Required

Enter an authorized login name and password for localhost.localdomain.

Configured Keyboard (US Default)

Login Name: [root]

Password: [*****_]

<Enter> OK <Esc> Cancel

Step 8: In the system customization go to the Configure Management Network section and press enter, which will let you view or modify the host’s management network setting.

System Customization

Configure Password
Configure Lockdown Mode
Configure Management Network
Restart Management Network
Test Management Network
Network Restore Options

Configure Keyboard
Troubleshooting Options

View System Logs

View Support Information

Reset System Configuration

Configure Management Network

Hostname: localhost

IPv4 Address: 192.168.174.131

Network identity acquired from DHCP server 192.168.174.254

IPv6 Addresses: fe80::20c:29ff:fec8:5440/64

To view or modify this host's management network settings in detail, press <Enter>.

Step 9: In the Configure Management Network go to the IPv4 configuration by pressing enter to configure the IPv4 address, subnet mask and default gateway.

Configure Management Network

Network Adapters
VLAN (optional)
IPv4 Configuration
IPv6 Configuration
DNS Configuration
Custom DNS Suffixes

IPv4 Configuration

Automatic

IPv4 Address: 192.168.175.134
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.175.2

This host can obtain an IPv4 address and other networking parameters automatically if your network includes a DHCP server. If not, ask your network administrator for the appropriate settings.

Step 10: Provide the IPv4 address, subnet mask and default gateway. Save the setting by pressing esc and close the window.

IPv4 Configuration

This host can obtain network settings automatically if your network includes a DHCP server. If it does not, the following settings must be specified:

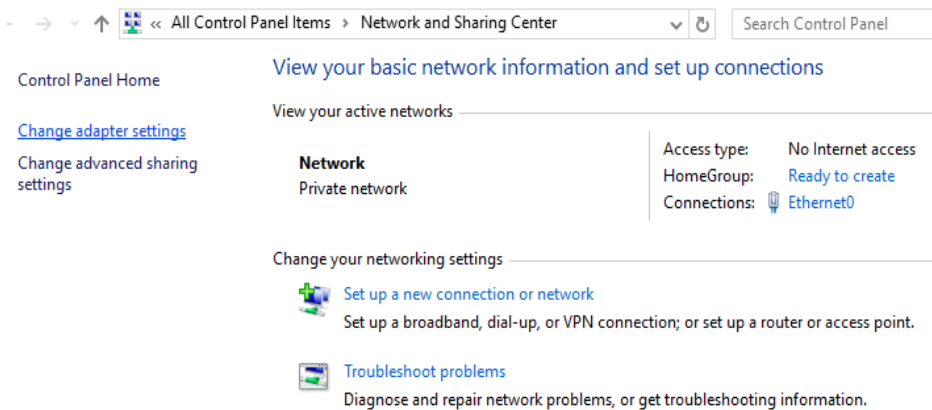
() Disable IPv4 configuration for management network
() Use dynamic IPv4 address and network configuration
(o) Set static IPv4 address and network configuration:

IPv4 Address [193.168.5.40]
Subnet Mask [255.255.255.0]
Default Gateway [193.168.5.1_]

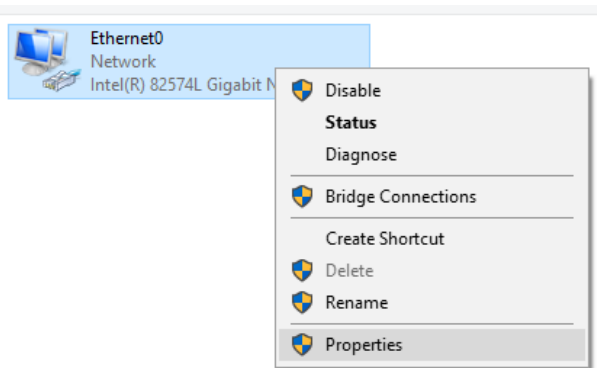
<Up/Down> Select <Space> Mark Selected <Enter> OK <Esc> Cancel

2. Accessing ESXi Server from client PC –

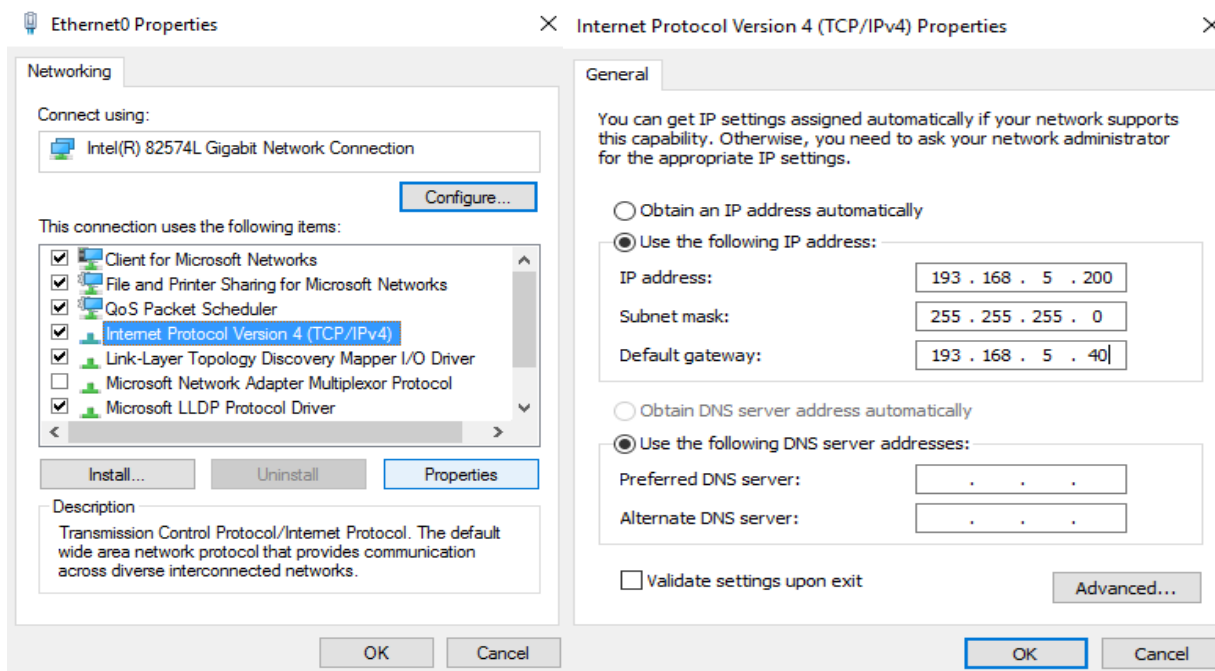
Step 1: In the client PC open the Network and Sharing Center and go to Change adapter settings.



Step 2: Right click on the Ethernet0 and then go to properties.



Step 3: In the Ethernet0 properties window go to Inter Protocol Version 4 (TCP/IPv4) and click on the properties option to configure the IP. Now provide the client machine IPv4 address, subnet mask and in the default gateway provide the ESXi Server IPv4 address. Click ok to save the setting and exit.



Step 4: Now check the connection between client machine and ESXi server. Go to command prompt and type “ping (ESXi Server IPv4 address)”, example – ping 193.168.5.40

```
Command Prompt
Microsoft Windows [Version 10.0.10586]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\NAJMIN>ping 193.168.5.40

Pinging 193.168.5.40 with 32 bytes of data:
Reply from 193.168.5.40: bytes=32 time<1ms TTL=64
Reply from 193.168.5.40: bytes=32 time<1ms TTL=64
Reply from 193.168.5.40: bytes=32 time<1ms TTL=64
Reply from 193.168.5.40: bytes=32 time<1ms TTL=64

Ping statistics for 193.168.5.40:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\NAJMIN>
```

Step 5: Go to web browser and type the ESXi Server IPv4 address and log in by providing the username and its associated password.



3. Installation of OS on top of ESXi Server 6.5.0 –

Step 1: In the localhost.localdomain page go the create/register VM option. A new virtual machine page will open. Select the option for create a new virtual machine and click on the next button to proceed.

New virtual machine

- 1 Select creation type
- 2 Select a name and guest OS
- 3 Select storage
- 4 Customize settings
- 5 Ready to complete

Select creation type

How would you like to create a Virtual Machine?

Create a new virtual machine
Deploy a virtual machine from an OVF or OVA file
Register an existing virtual machine

This option guides you through creating a new virtual machine. You will be able to customize processors, memory, network connections, and storage. You will need to install a guest operating system after creation.

Back Next Finish Cancel

Step 2: Select a name and guest OS. For example we are installing windows 7 here. After providing the details click on the next button.

New virtual machine - KU-Test (ESXi 6.5 virtual machine)

- 1 Select creation type
- 2 Select a name and guest OS
- 3 Select storage
- 4 Customize settings
- 5 Ready to complete

Select a name and guest OS

Specify a unique name and OS

Name
KU-Test

Virtual machine names can contain up to 80 characters and they must be unique within each ESXi instance.

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Compatibility
ESXi 6.5 virtual machine

Guest OS family
Windows

Guest OS version
Microsoft Windows 7 (64-bit)

Back Next Finish Cancel

Step 3: Select storage capacity and click next to proceed.

New virtual machine - KU-Test (ESXi 6.5 virtual machine)

- ✓ 1 Select creation type
- ✓ 2 Select a name and guest OS
- ✓ 3 Select storage
- 4 Customize settings
- 5 Ready to complete

Select storage

Select the datastore in which to store the configuration and disk files.

The following datastores are accessible from the destination resource that you selected. Select the destination datastore for the virtual machine configuration files and all of the virtual disks.

Name	Capacity	Free	Type	Thin pro...	Access
datastore1	32.5 GB	31.55 GB	VMFS5	Supported	Single

1 items

Back Next Finish Cancel

Step 4: Customize the virtual machine hardware and virtual machine. In the cd/dvd drive 1, select the datastore browser option to upload the windows 7 installer package. After uploading windows 7 installer package click on the next button to proceed towards the final step.

New virtual machine - KU-Test (ESXi 6.5 virtual machine)

- ✓ 1 Select creation type
- ✓ 2 Select a name and guest OS
- ✓ 3 Select storage
- ✓ 4 Customize settings
- 5 Ready to complete

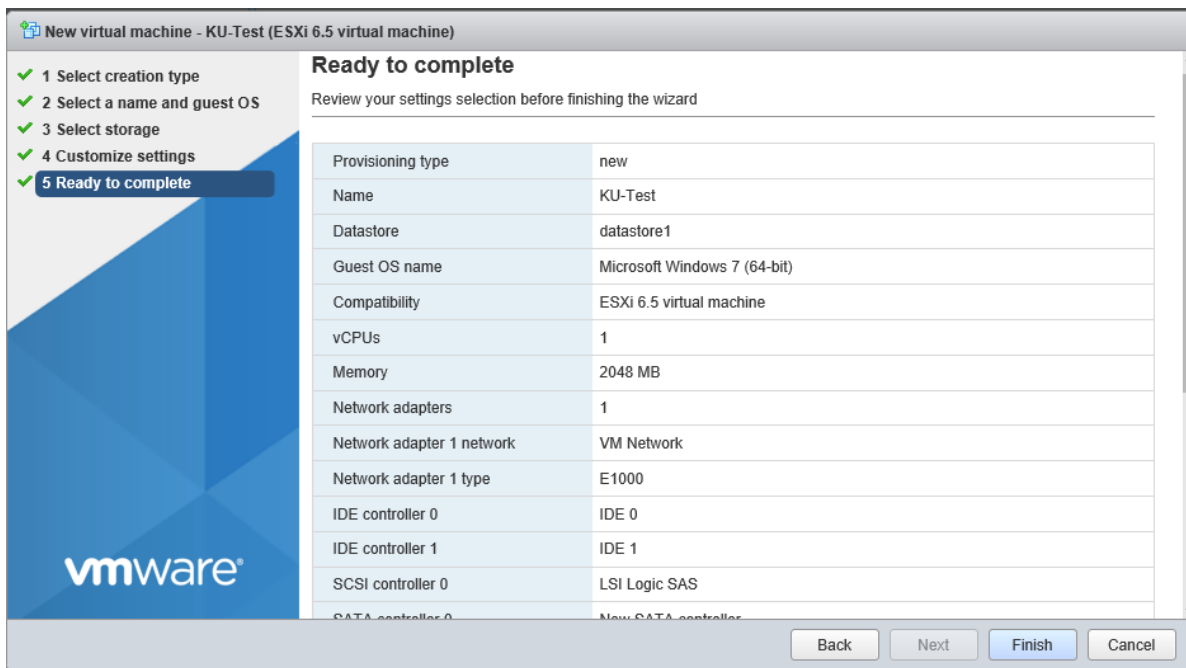
Customize settings

Configure the virtual machine hardware and virtual machine additional options

SCSI Controller 0	LSI Logic SAS	
SATA Controller 0		
USB controller 1	USB 2.0	
Network Adapter 1	VM Network	<input checked="" type="checkbox"/> Connect
CD/DVD Drive 1	Host device	
Status	<input checked="" type="checkbox"/> Connect at power on	
CD/DVD Media	Local NECVMWar CD-ROM (mpx.vmhba64:C0:T0:L0)	
Virtual Device Node	SATA controller 0	SATA (0:0)
Video Card	Specify custom settings	

Back Next Finish Cancel

Step 5: Review your settings selection before finishing the wizard and then click the finish button.



Step 6: Now the windows 7 OS is installed over ESXi Server. In this way you can install multiple number of operating system on top of the ESXi Server.

