EXPERIMENT -2

AIM-Understand different types of virtualization , host and bare metal hypervisor and implement horizontal scalability

THEORY-

Q1)What do you mean by virtualization in Cloud Computing with Examples?

Ans:

1. In cloud computing, virtualization refers to the creation of a virtual version of a resource, such as a server, storage device, or network, within a cloud environment. This virtualization allows multiple virtual instances or machines to run on a single physical server or infrastructure, enabling more efficient utilization of resources and better flexibility.

2. Key components of virtualization in cloud computing include:

3. Virtual Machines (VMs): Virtualization enables the creation and operation of multiple virtual machines on a single physical server. Each VM operates as an independent server with its own operating system (OS) and applications, providing isolation and flexibility.

4. Hypervisor or Virtual Machine Monitor (VMM): The hypervisor is a software layer that manages and controls multiple virtual machines on a physical server. It allocates resources, such as CPU, memory, and storage, to each VM and ensures their isolation from each other.

5. Resource Pooling: Virtualization allows the pooling of computing resources (CPU, memory, storage) from multiple physical servers. These pooled resources can be dynamically allocated to virtual machines based on demand, providing scalability and efficient resource utilization.

6. Isolation: Virtualization provides a level of isolation between different virtual machines. This isolation ensures that the operations of one VM do not impact the performance or security of other VMs running on the same physical hardware.

7. Snapshot and Cloning: Virtualization allows for the creation of snapshots or copies of virtual machines at a specific point in time. This feature is valuable for backup, recovery, and rapid deployment of identical VM instances.

8. Dynamic Resource Allocation: Virtualization enables the dynamic allocation of resources to virtual machines based on demand. This flexibility allows for efficient use of resources and the ability to scale up or down as needed.

Q2)Types of virtualization
Ans:
There are several types of virtualization, each catering to different aspects of computing infrastructure. The main types include:

1.Server Virtualization:
   a.Description: In server virtualization, a physical server is divided into multiple virtual machines (VMs) using a hypervisor. Each VM operates independently with its own operating system, applications, and resources.
   b.Benefits: Improved resource utilization, isolation between VMs, easier management, and scalability.

2.Desktop Virtualization:
   a.Description: Desktop virtualization involves running desktop operating systems and applications on virtual machines hosted on a server rather than on individual physical desktops or laptops.
   b.Benefits: Centralized management, enhanced security, and the ability to access desktop environments from various devices.

3.Network Virtualization:
   a.Description: Network virtualization abstracts the network infrastructure, allowing the creation of virtual networks on top of physical networks. It enables the segmentation of a physical network to create multiple isolated virtual networks.
   b.Benefits: Improved network efficiency, easier network management, and enhanced security through isolation.

4.Storage Virtualization:
   a.Description: Storage virtualization abstracts physical storage resources and presents them as a single, unified storage pool. It enables more efficient management of storage resources across multiple devices.
   b.Benefits: Simplified storage management, improved utilization, and flexibility in allocating storage resources.

5.Application Virtualization:
   a.Description: Application virtualization separates applications from the underlying operating system, allowing them to run in isolated environments. Users can access and run applications without installing them on their local devices.
   b.Benefits: Simplified application deployment, easier updates, and compatibility across different operating systems.

6.Hardware Virtualization:

a.Description: Hardware virtualization involves the virtualization of physical hardware components, such as CPU, memory, and storage. It is a foundational concept for server virtualization.
b.Benefits: Efficient resource utilization, isolation, and the ability to run multiple operating systems on a single physical server.

7.Memory Virtualization:
a.Description: Memory virtualization abstracts physical memory across multiple systems, allowing them to share and allocate memory resources dynamically.
b.Benefits: Improved memory utilization, better system performance, and flexibility in allocating memory to different applications or virtual machines.

8.GPU Virtualization:
a.Description: GPU virtualization allows multiple virtual machines to share the processing power of a physical Graphics Processing Unit (GPU). This is particularly useful for graphics-intensive applications and virtual desktops.
b.Benefits: Enhanced graphics performance, efficient use of GPU resources, and support for virtualized desktop environments.

Q3)Virtualization working in Cloud Computing
Ans:
The working of virtualization in cloud computing involves the abstraction of physical resources to create virtual instances that can be managed and allocated dynamically. Here's a general overview of how virtualization operates in the context of cloud computing:

1. Hypervisor Installation: A hypervisor, also known as a Virtual Machine Monitor (VMM), is installed on the physical server hardware. The hypervisor is responsible for creating and managing virtual machines (VMs).
2. Creation of Virtual Machines (VMs):The hypervisor creates multiple virtual machines on the physical server. Each VM is an isolated instance that emulates a complete computing environment, including its own operating system (OS), applications, and virtualized hardware components.
3. Resource Abstraction: Virtualization abstracts physical resources such as CPU, memory, storage, and network. This abstraction allows multiple VMs to share the underlying physical resources without being aware of each other.
4. Resource Pooling: The hypervisor pools together the physical resources from the host server, creating a resource pool. This pool can be dynamically allocated to the VMs based on their requirements.
5. Isolation: Each VM operates independently of others. Isolation ensures that the activities and processes within one VM do not interfere with those in another. This separation provides security and stability.

6. Management and Orchestration:Cloud management software or an orchestration layer is often used to automate the deployment, scaling, and management of VMs. This layer facilitates efficient resource utilization and ensures that applications run smoothly.
7. Dynamic Resource Allocation: Virtualization allows for the dynamic allocation of resources to VMs based on demand. This means that resources can be scaled up or down in response to changing workloads.
8. Live Migration:Many hypervisors support live migration, allowing VMs to be moved from one physical host to another without downtime. This feature is useful for load balancing, maintenance, and optimizing resource utilization.
9. Snapshot and Cloning:Virtualization enables the creation of snapshots and clones of VMs. Snapshots capture the state of a VM at a specific point in time, facilitating backup and recovery. Cloning allows the rapid deployment of identical VM instances.
10. Integration with Cloud Services:Virtualized resources are often integrated into cloud services. Cloud providers use virtualization to offer Infrastructure as a Service (IaaS), allowing users to deploy and manage VMs without dealing with the underlying hardware.

Q4)What is hypervisor give examples of hypervisor
Ans:
A hypervisor, also known as a Virtual Machine Monitor (VMM), is a software or hardware component that enables the creation and management of virtual machines (VMs) on a physical host system. The hypervisor sits between the hardware and the operating systems running on virtual machines, facilitating the efficient sharing of physical resources among multiple VMs.

There are two main types of hypervisors:

Type 1 Hypervisor (Bare-Metal Hypervisor): This hypervisor runs directly on the physical hardware of the host system and does not require a host operating system. It provides direct access to physical resources for virtual machines.

Examples of Type 1 hypervisors include:
1. VMware ESXi
2. Microsoft Hyper-V Server
3. Xen
4. KVM (Kernel-based Virtual Machine)

Type 2 Hypervisor (Hosted Hypervisor):

This hypervisor runs on top of a host operating system and relies on the host OS for resource management. It is installed as an application within the host operating system.

Examples of Type 2 hypervisors include:

1. VMware Workstation
2. Oracle VirtualBox
3. Microsoft Hyper-V (when installed on a Windows operating system)

Examples of Hypervisors:

1. VMware ESXi:

   VMware ESXi is a popular Type 1 hypervisor used in enterprise environments. It provides a bare-metal virtualization platform for running multiple virtual machines simultaneously.
2. Microsoft Hyper-V:

   Microsoft Hyper-V is available in both Type 1 and Type 2 configurations. Hyper-V Server is a Type 1 hypervisor, while Hyper-V can be installed as a role on Windows Server (Type 1) or as a standalone application on Windows (Type 2).
3. Xen:

   Xen is an open-source Type 1 hypervisor that is widely used in the open-source community. It is known for its paravirtualization approach, where the guest operating systems are modified for better performance.
4. KVM (Kernel-based Virtual Machine):

   KVM is a Linux-based Type 1 hypervisor that leverages hardware virtualization extensions in modern processors. It is integrated into the Linux kernel and is commonly used for virtualization on Linux systems.
5. Oracle VirtualBox:

   Oracle VirtualBox is a popular Type 2 hypervisor that can be installed on various host operating systems, including Windows, macOS, Linux, and others. It provides a user-friendly interface for managing virtual machines.

Q5)Explain the types of hypervisor
Ans:
Hypervisors, also known as Virtual Machine Monitors (VMMs), come in two main types: Type 1 (Bare-Metal Hypervisor) and Type 2 (Hosted Hypervisor). Let's delve into each type in more detail:

1. Type 1 Hypervisor (Bare-Metal Hypervisor):

a. Architecture:

- Direct Access to Hardware: Type 1 hypervisors run directly on the physical hardware of the host system, without the need for a host operating system. They have direct access to the hardware resources, which can lead to better performance and efficiency.

b. Use Cases:

- Enterprise Environments: Type 1 hypervisors are commonly used in enterprise environments for server virtualization. They are well-suited for scenarios where maximizing performance and resource utilization is critical.

c. Examples:

- VMware ESXi: A widely used enterprise-grade Type 1 hypervisor, VMware ESXi is known for its reliability, scalability, and performance. It is often used in data centers for server virtualization.

- Microsoft Hyper-V Server: Microsoft Hyper-V Server is a standalone hypervisor that operates without a host operating system. It is part of the Hyper-V virtualization suite and is used for server virtualization on Windows environments.

- Xen: An open-source Type 1 hypervisor, Xen is known for its paravirtualization approach. It is widely used in Linux environments and supports various guest operating systems.

- KVM (Kernel-based Virtual Machine): KVM is a Linux kernel module that turns the host operating system into a Type 1 hypervisor. It leverages hardware virtualization extensions in modern processors.

2. Type 2 Hypervisor (Hosted Hypervisor):

a. Architecture:

- Installed on a Host Operating System: Type 2 hypervisors run on top of a host operating system. They rely on the host OS for managing hardware resources and provide a virtualization layer for guest operating systems.

b. Use Cases:

- Desktop Virtualization: Type 2 hypervisors are commonly used for desktop virtualization, allowing users to run multiple operating systems on a single desktop or laptop.

c. Examples:

- VMware Workstation: A popular Type 2 hypervisor for desktop virtualization, VMware Workstation is used for testing, development, and running virtual machines on individual workstations.

- Oracle VirtualBox: An open-source Type 2 hypervisor, Oracle VirtualBox is versatile and supports various host operating systems. It is commonly used for desktop virtualization and testing.

- Microsoft Hyper-V (on Windows Desktop):While Hyper-V can also function as a Type 1 hypervisor, the version installed on a Windows desktop is a Type 2 hypervisor. It enables users to run virtual machines on Windows systems.

d. Considerations:
- Overhead: Type 2 hypervisors introduce additional overhead because they run on top of a host operating system. This can impact performance compared to Type 1 hypervisors.

- Ease of Use: Type 2 hypervisors are generally easier to set up and use, making them suitable for individual users and developers.

In summary, the choice between Type 1 and Type 2 hypervisors depends on the specific use case and requirements. Type 1 hypervisors are favored for server virtualization in enterprise environments, while Type 2 hypervisors are commonly used for desktop virtualization and testing.

Q6)What are the benefits of virtualization
Ans:
Virtualization offers several significant benefits across various IT environments, including data centers, cloud computing, and desktop computing. Here are some key advantages of virtualization:

1. Resource Utilization:

   Increased Efficiency: Virtualization allows for better utilization of physical resources. Multiple virtual machines (VMs) can run on a single physical server, optimizing CPU, memory, and storage utilization.

2. Cost Savings:

   Hardware Consolidation: By running multiple VMs on a single physical server, organizations can reduce the need for numerous individual servers, leading to lower hardware costs and energy consumption.
3. Operational Savings:

   Virtualization can streamline operations, reducing the time and effort required for tasks such as provisioning, maintenance, and backups. This can result in operational cost savings.
4. Scalability:

   Dynamic Resource Allocation: Virtualization allows for the dynamic allocation of resources to VMs based on demand. This scalability ensures that applications can receive the necessary resources to handle varying workloads.
5. Isolation and Security:

   Isolation between VMs: Virtualization provides strong isolation between virtual machines, preventing one VM from impacting others. This isolation enhances security and stability.

6. Snapshot and Rollback:

   Virtualization enables the creation of snapshots, allowing administrators to capture the state of a VM at a specific point in time. This feature aids in backup, recovery, and testing.
7. Flexibility and Agility:

   01. Rapid Deployment: Virtual machines can be quickly provisioned and deployed, reducing the time required to set up new servers or applications.
   02. Migration and Mobility: Virtualization supports live migration, allowing VMs to be moved from one physical host to another without downtime. This enhances flexibility in managing workloads.
8. Disaster Recovery:

   Improved Backup and Recovery: Virtualization simplifies the backup and recovery processes. Snapshots and clones enable efficient data protection, and VMs can be easily restored to a previous state.

9. Business Continuity:

Virtualization contributes to business continuity by providing options for failover and disaster recovery solutions.

10. Testing and Development:

    Isolated Testing Environments: Virtualization allows for the creation of isolated test environments, facilitating software development, testing, and quality assurance without affecting the production environment.
11. Green IT:

    Reduced Energy Consumption: By consolidating workloads onto fewer physical servers, virtualization helps reduce overall energy consumption in data centers, contributing to environmentally friendly practices.
12. Desktop Virtualization (VDI):

    Centralized Management: Virtual Desktop Infrastructure (VDI) allows for centralized management of desktop environments, making it easier to deploy, update, and manage desktops for end-users.
13. Compatibility and Legacy Support:

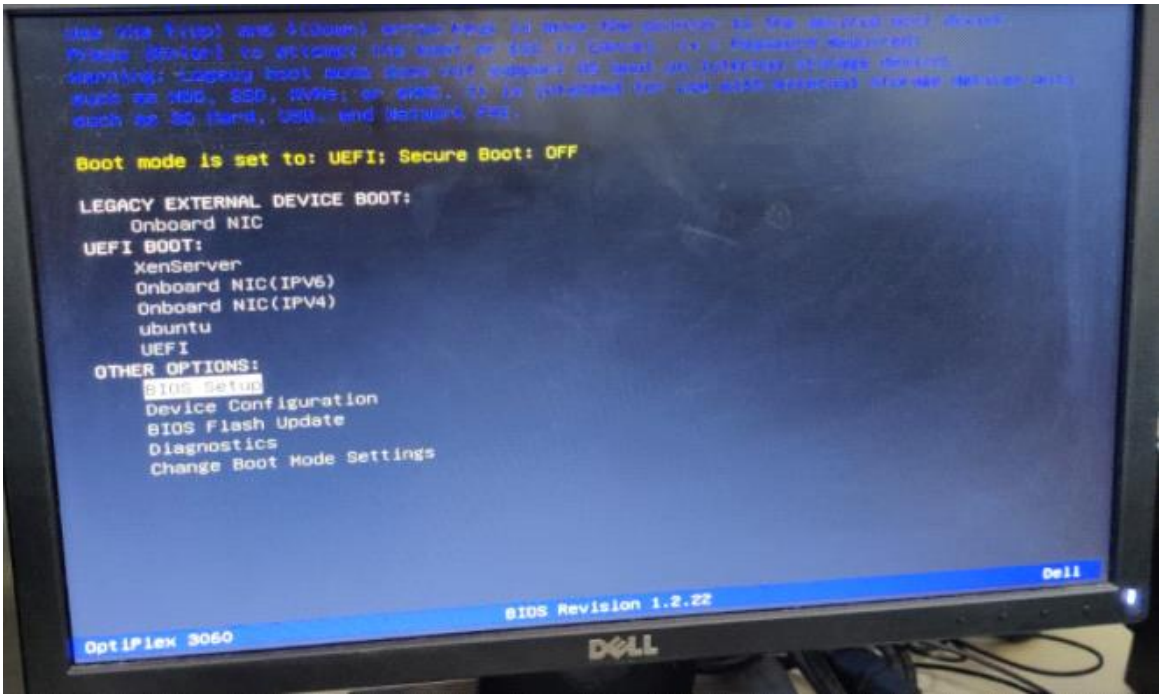
    Run Multiple Operating Systems: Virtualization enables the simultaneous running of multiple operating systems on the same hardware, facilitating support for legacy applications and diverse software environments.

Title: To study and Implement Bare-metal Virtualization using Xen

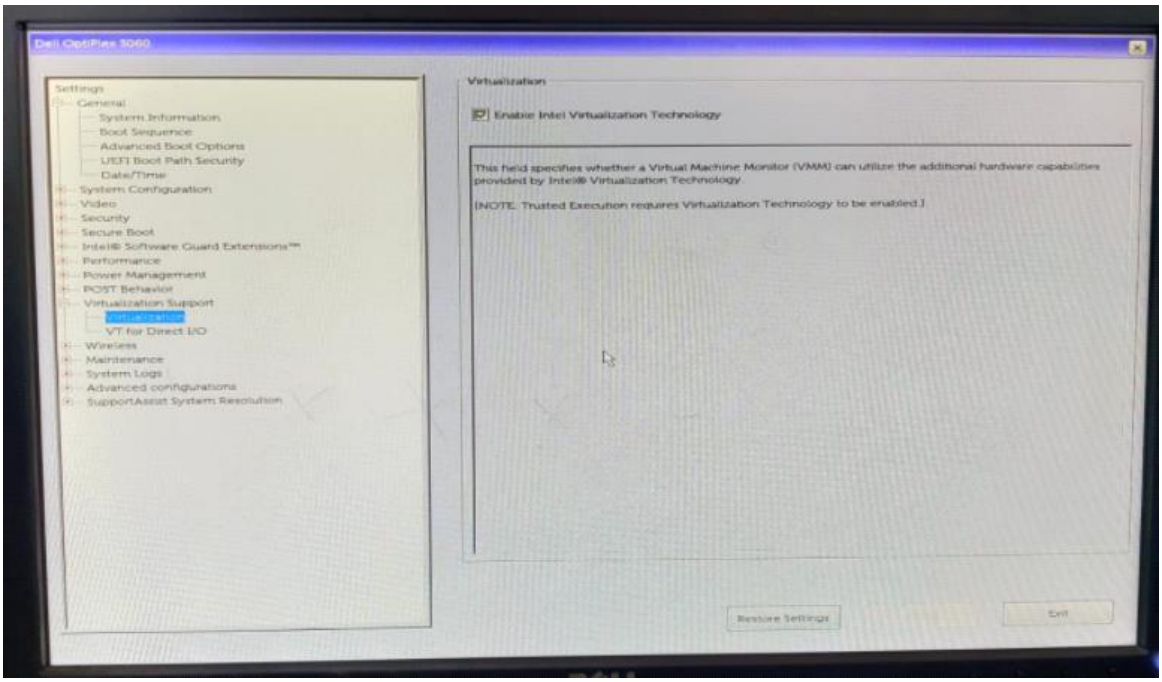
Part A(Installation of Xen-Server)

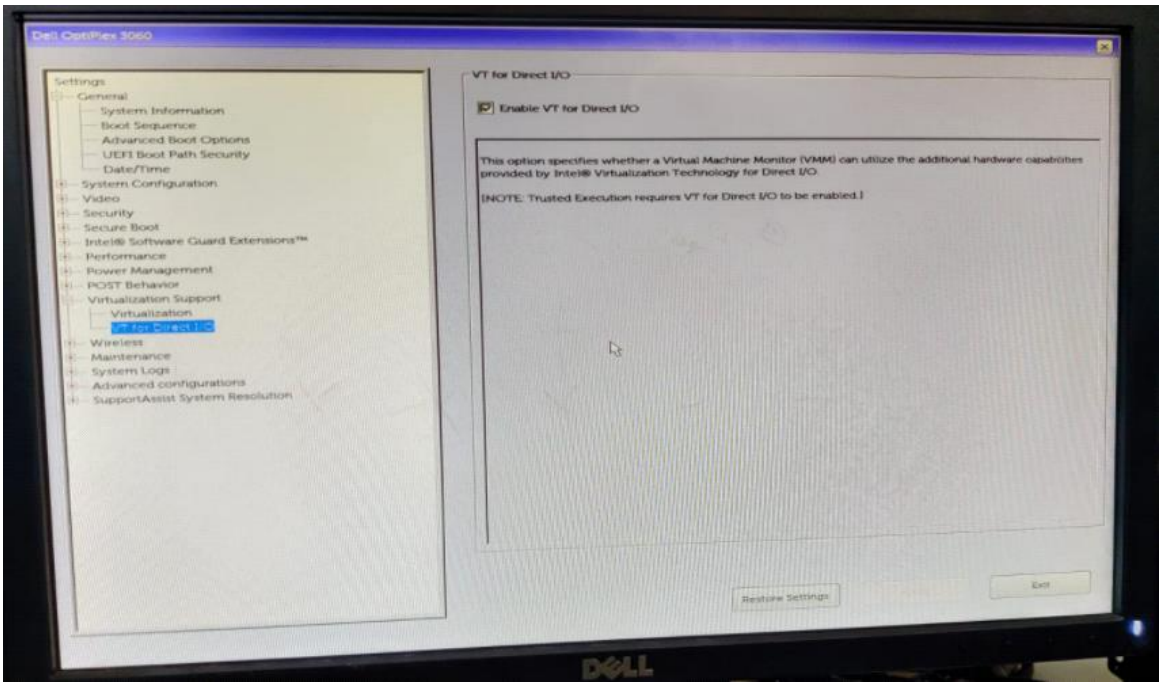
Download and make bootable pen drive of XenServer-7.4.0-install-cd.iso

- Open BIOS mode on the computer and select the BIOS setup option.

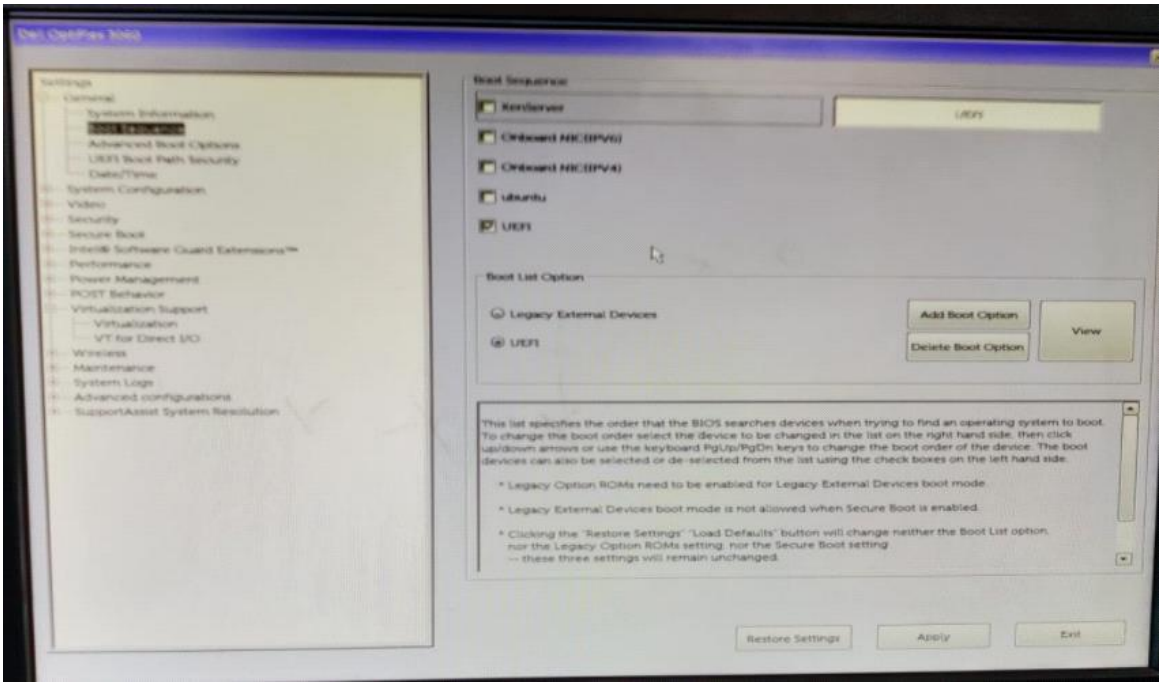


- Enable virtualization and VT for direct I/O.

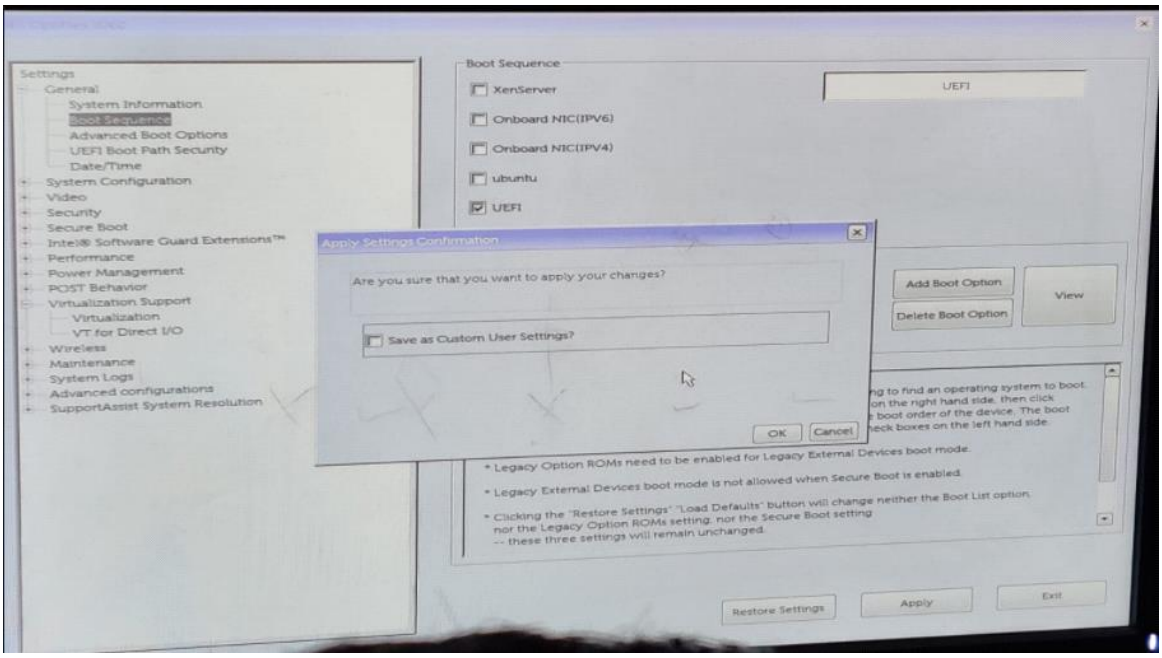




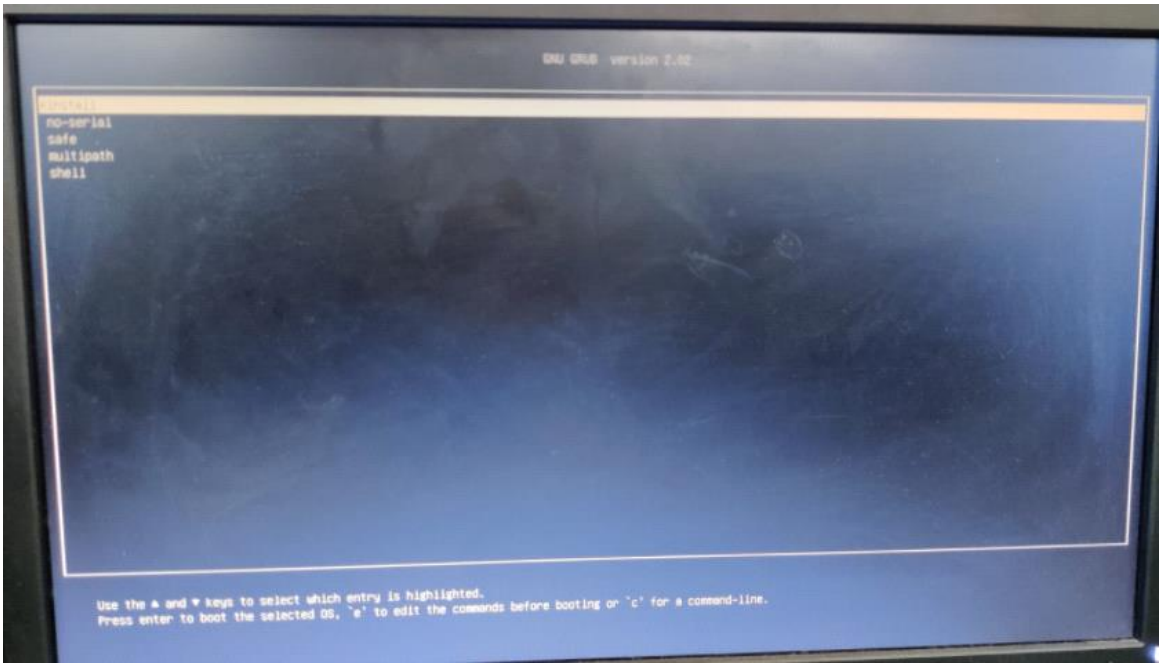
- Select boot sequence as UEFI.



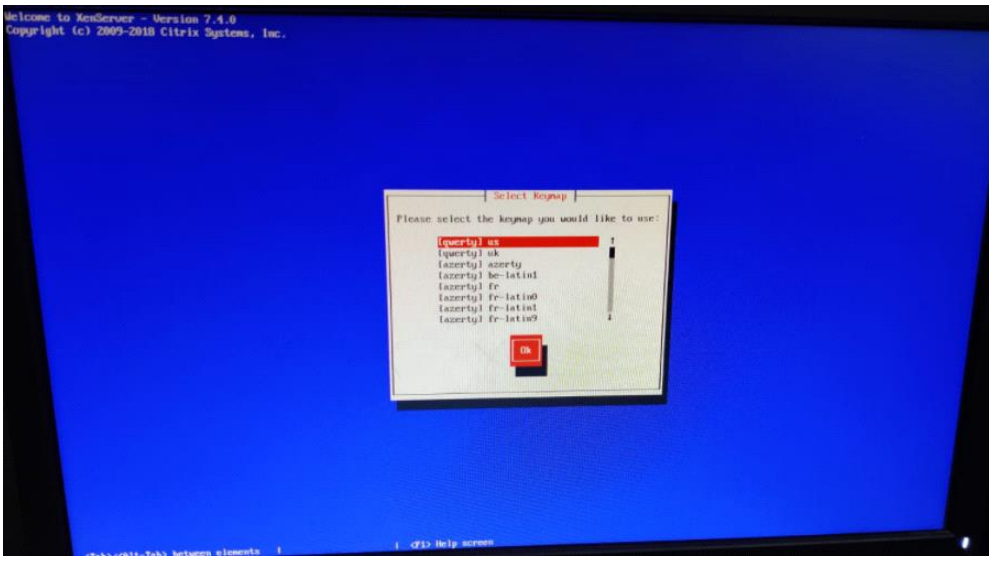
- Apply changes.



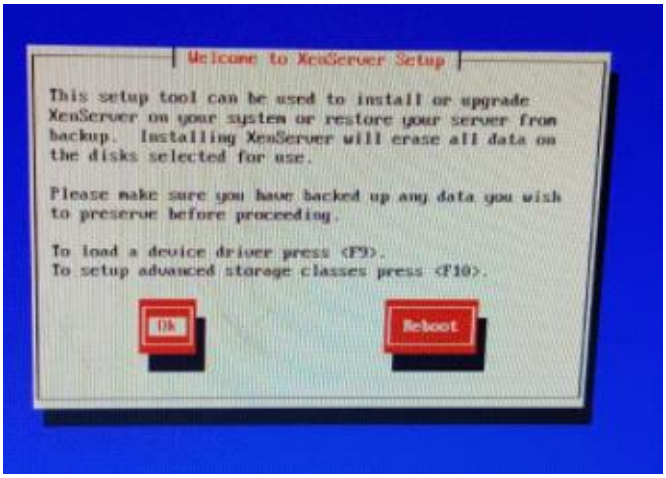
- Select ‘install’.

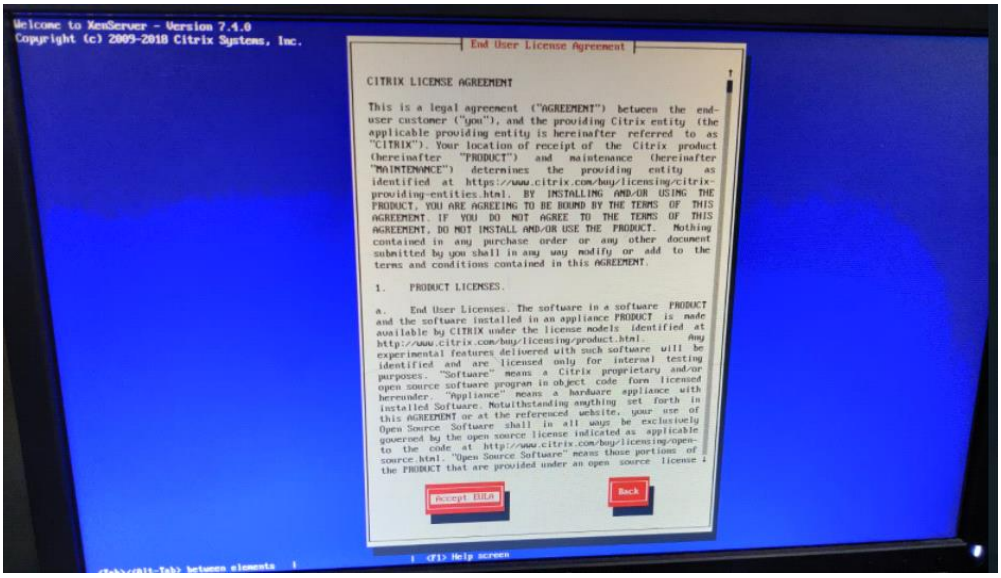


- Select the keymap as English US.

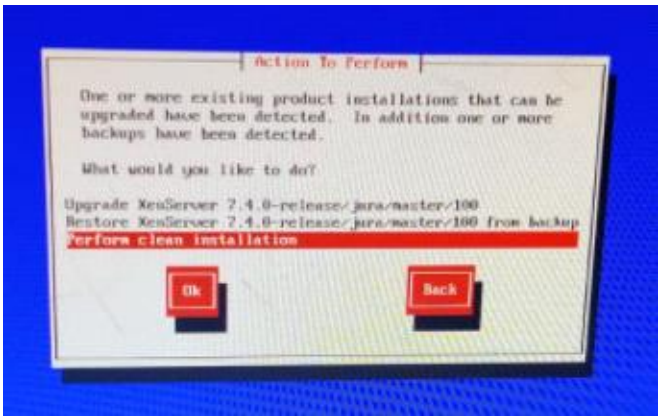


- Press ‘ok’ and accept the ‘EULA’

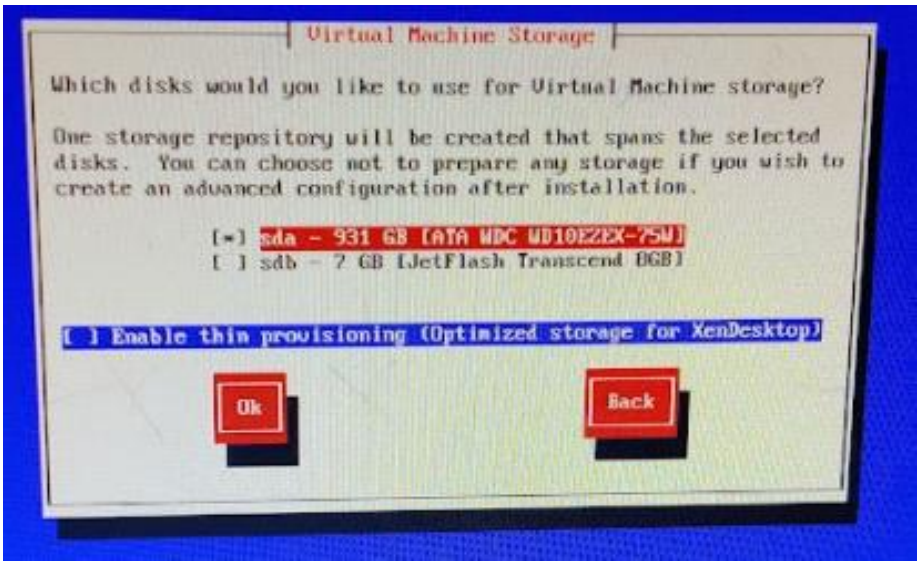




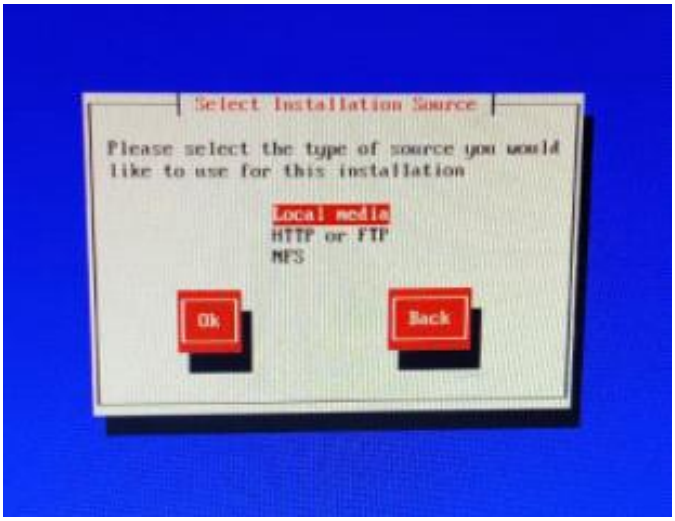
- [OPTIONAL if Xen-server is found already on system] Go with ‘perform clean installation’ if the newest xen-server is to be installed.



- Select the disk to use for the virtual machine.

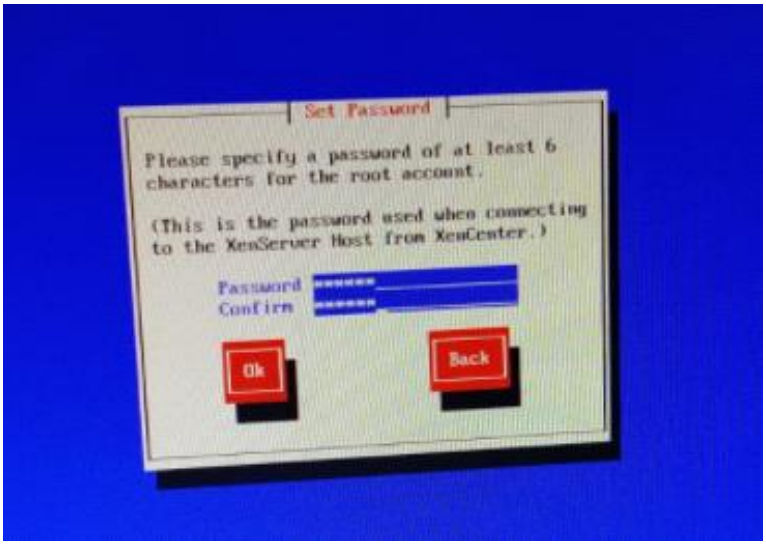


- Local media as installation source.

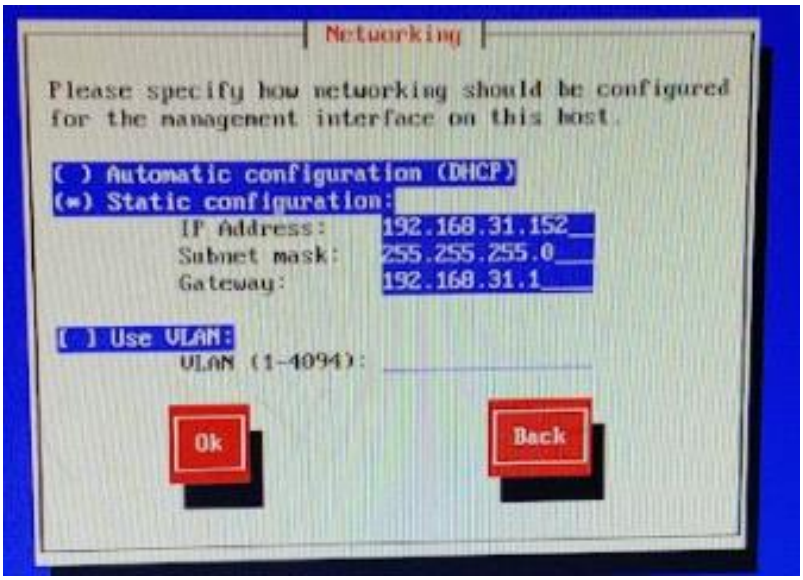


- Skip verification.

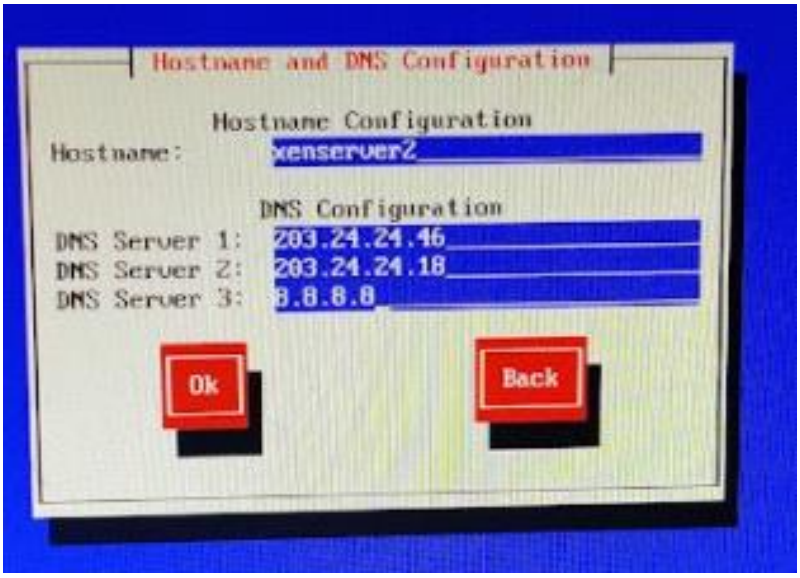
- Set up a password.



- Configure the networking.
  - Select static configuration.
  - IP Address as: 192.160.31.152
  - Subnet Mask: 255.255.255.0
  - Gateway: 192.160.31.1

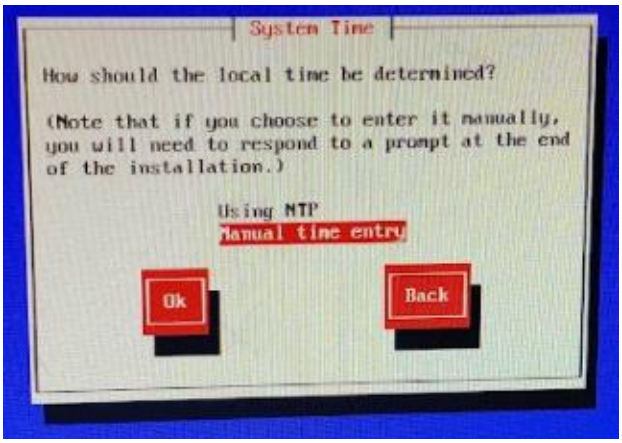


- Configure DNS and give a hostname like ‘xenserver2’.
  - Server 1: 203.24.24.46
  - Server 2: 203.24.24.16
  - Server 3: 8.8.8.8

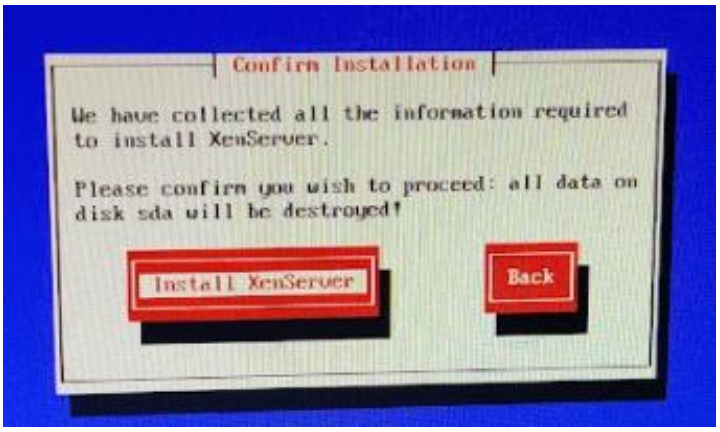


- Select ASIA for the area and KOLKATA for the timezone.

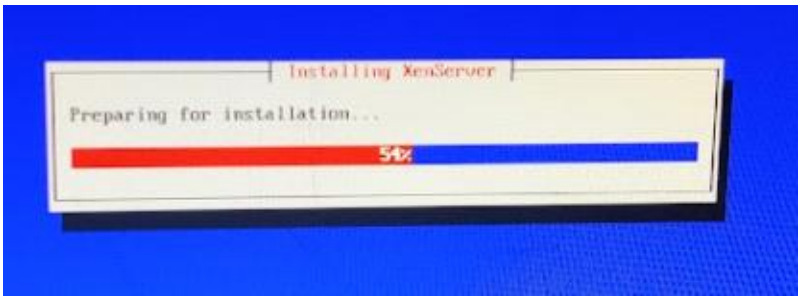
- Select manual time entry and enter the time.

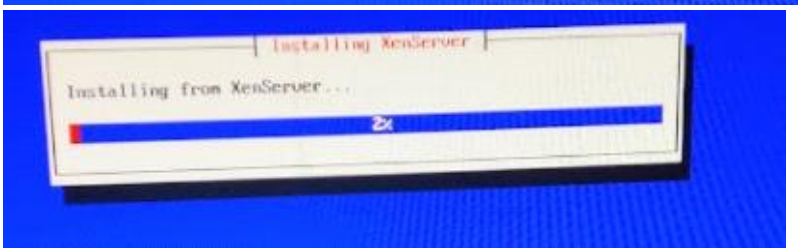


- Confirm installation by clicking on **'Install XenServer'**

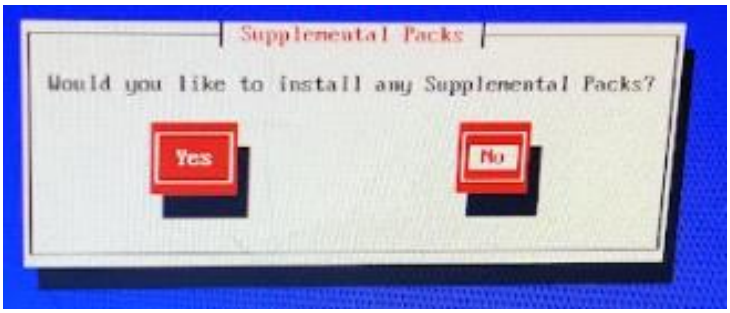


- Installation begins

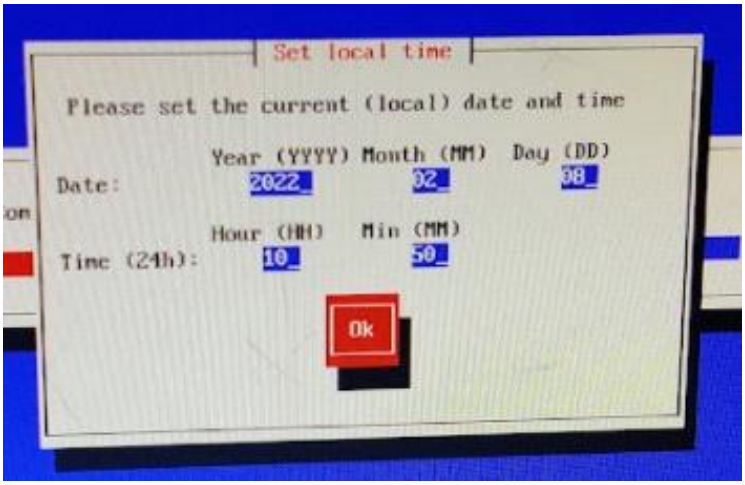




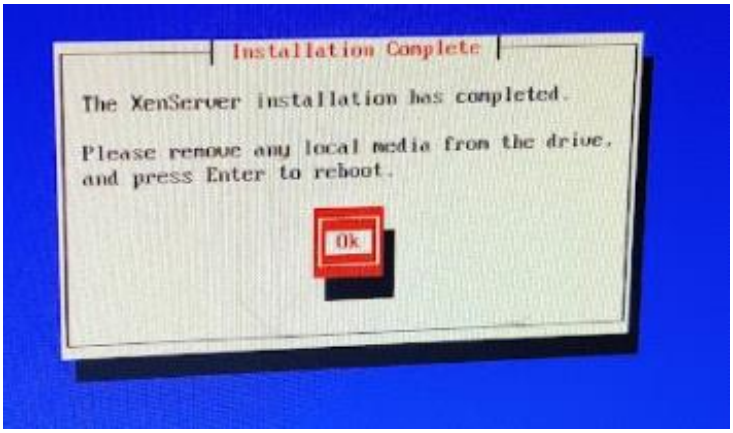
- Choose '**No**' for supplemental packs.



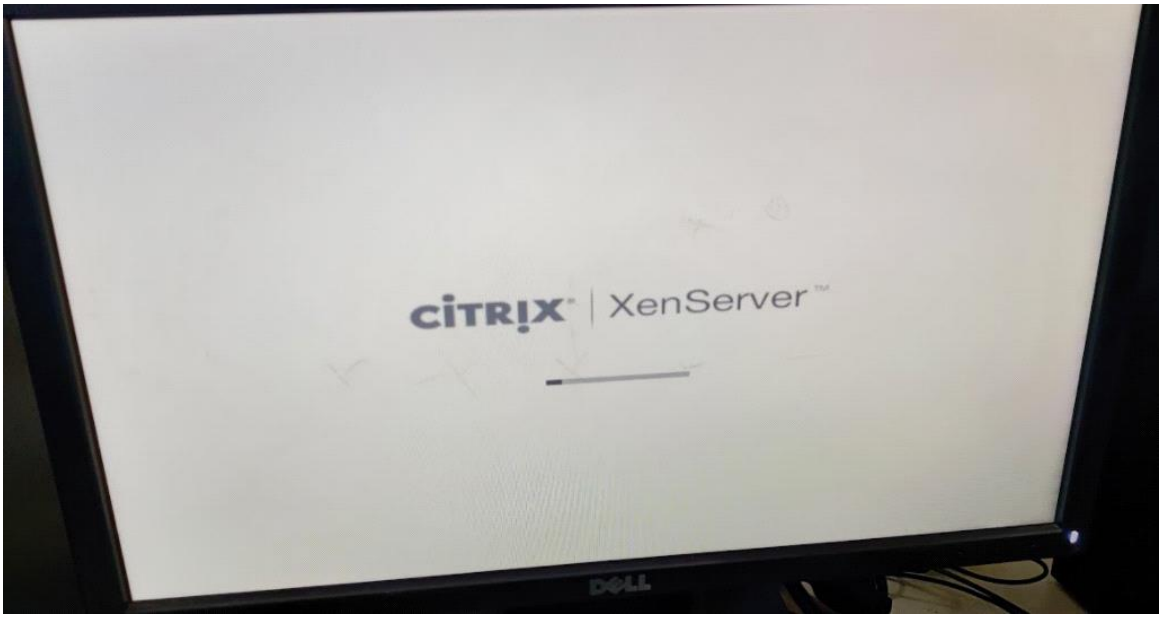
- Set local time if asked.



- Installation complete.

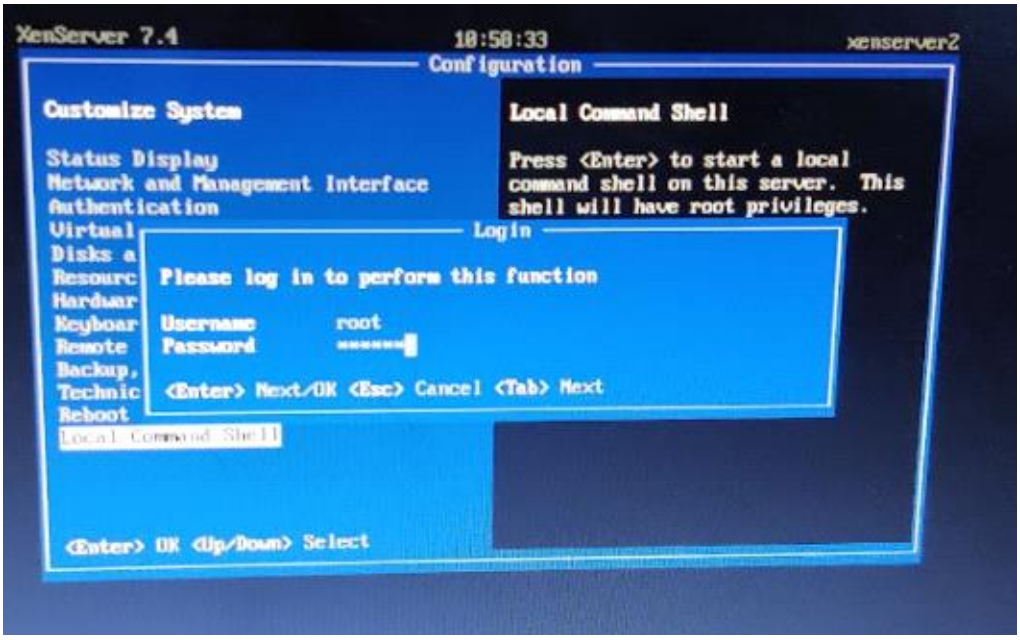


- Loading screen.

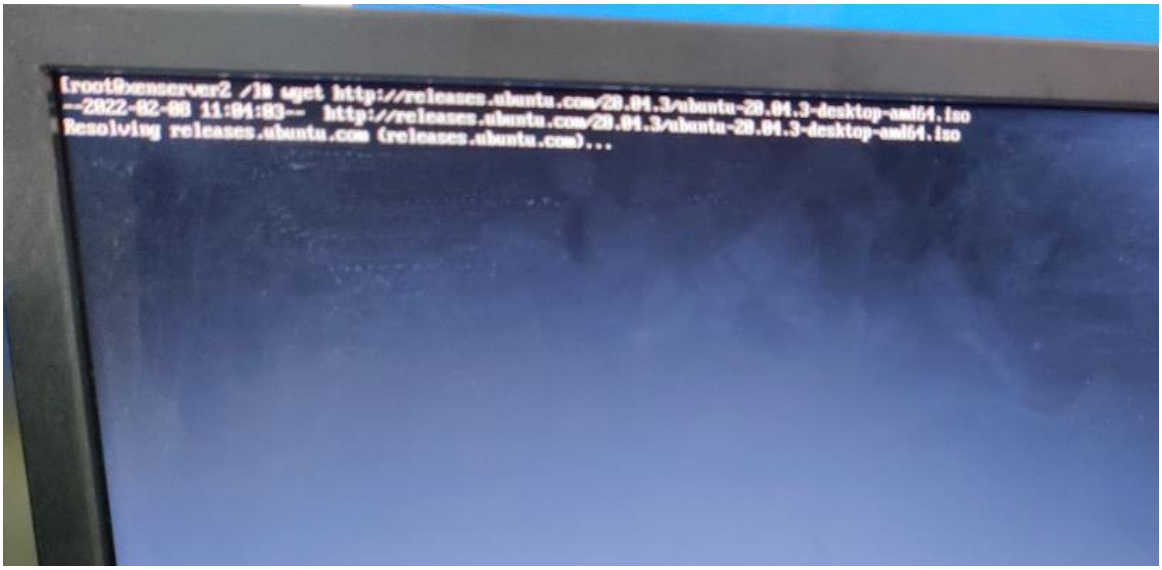


- Select '**Local command shell option**'.

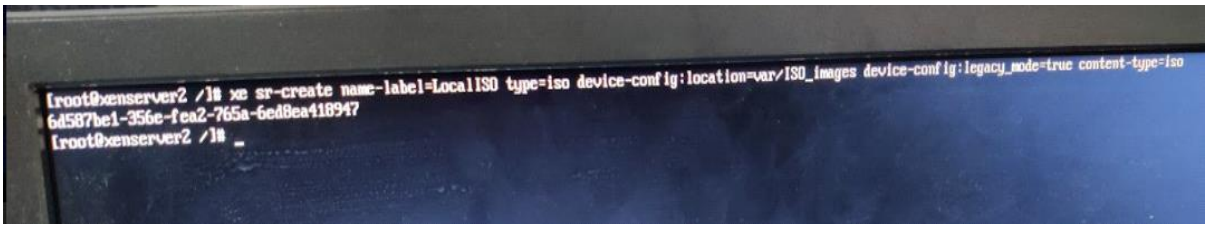
- Enter root username and password.



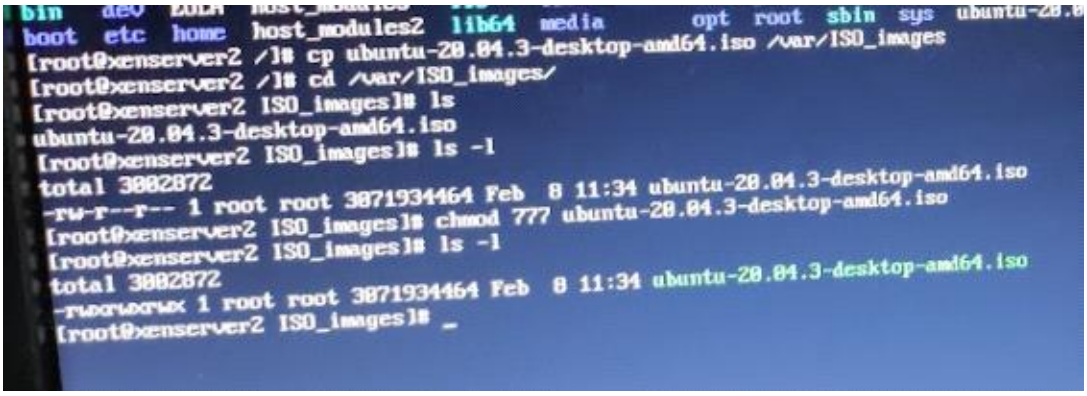
- wget http://releases.ubuntu.com/20.04.3/ubuntu-20.04.3-desktop-amd64.iso



- xe sr-create name-label=LocalISO type=iso device-config:location=var/ISO_images device-config:legacy_mode=true content-type=iso

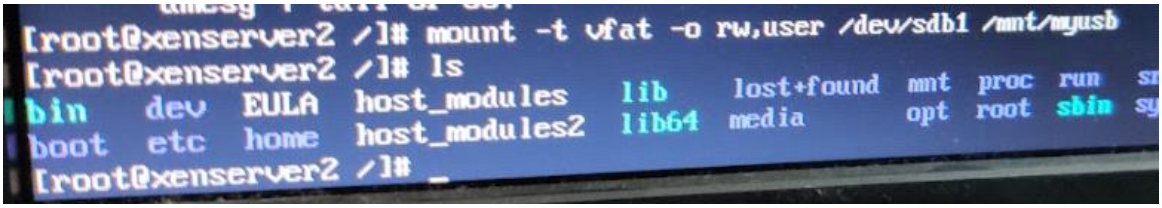


- Copy the iso to ISO_images folder by: cp ubuntu-20.04.3-desktop-amd64.iso /var/ISO_images
- Give full access to the file by: chmod 777 ubuntu-20.04.3-desktop-amd64.iso

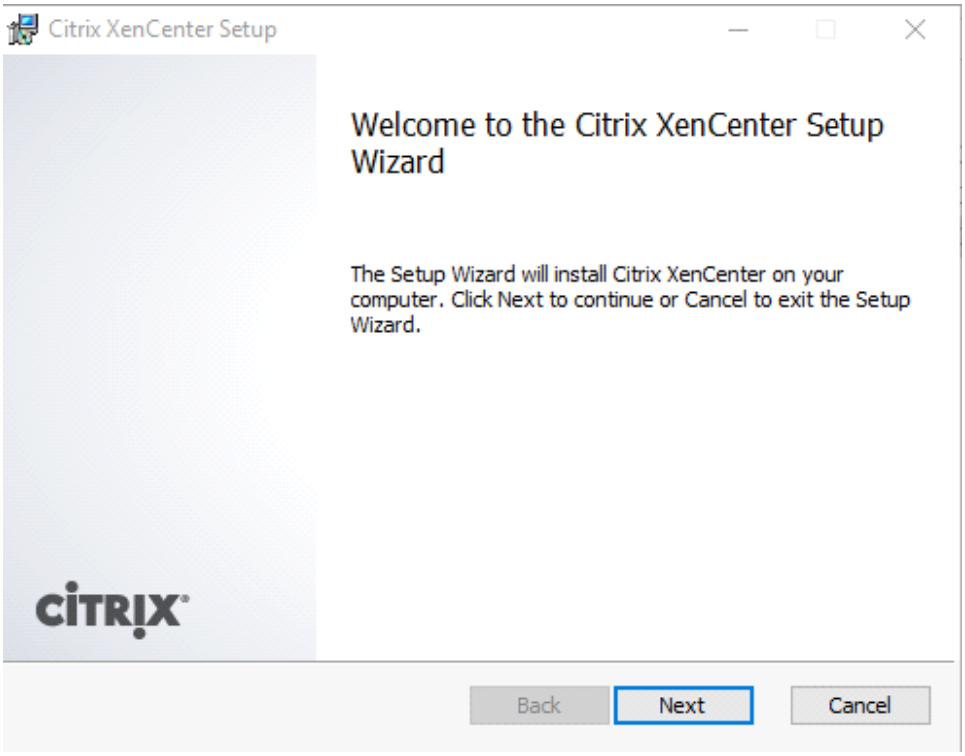


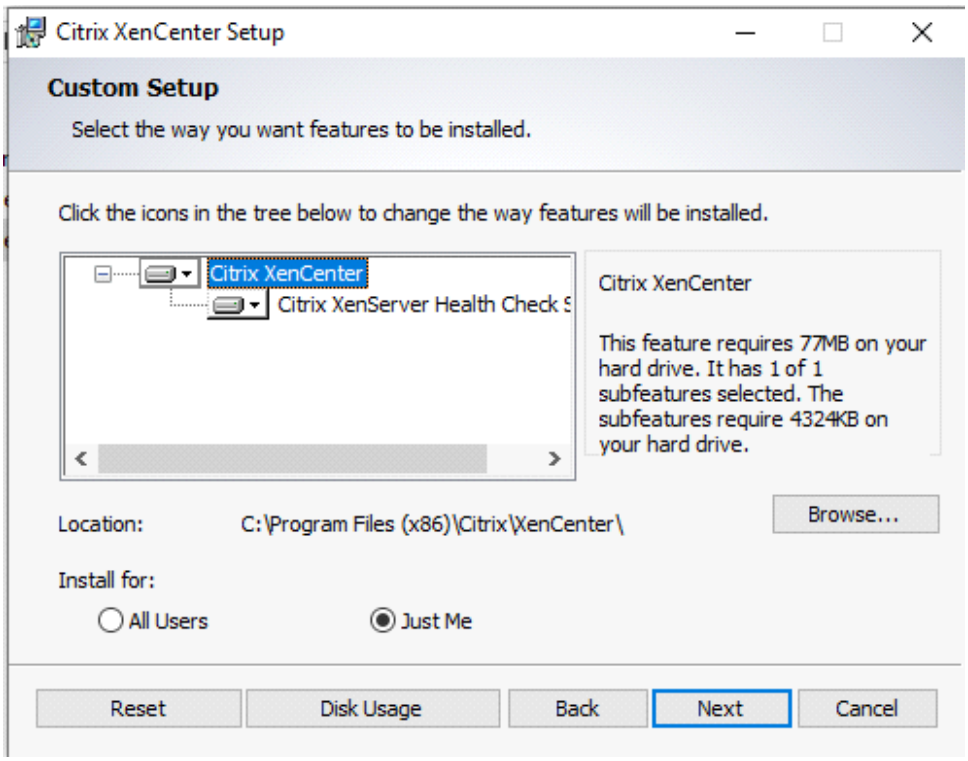
[Optional]

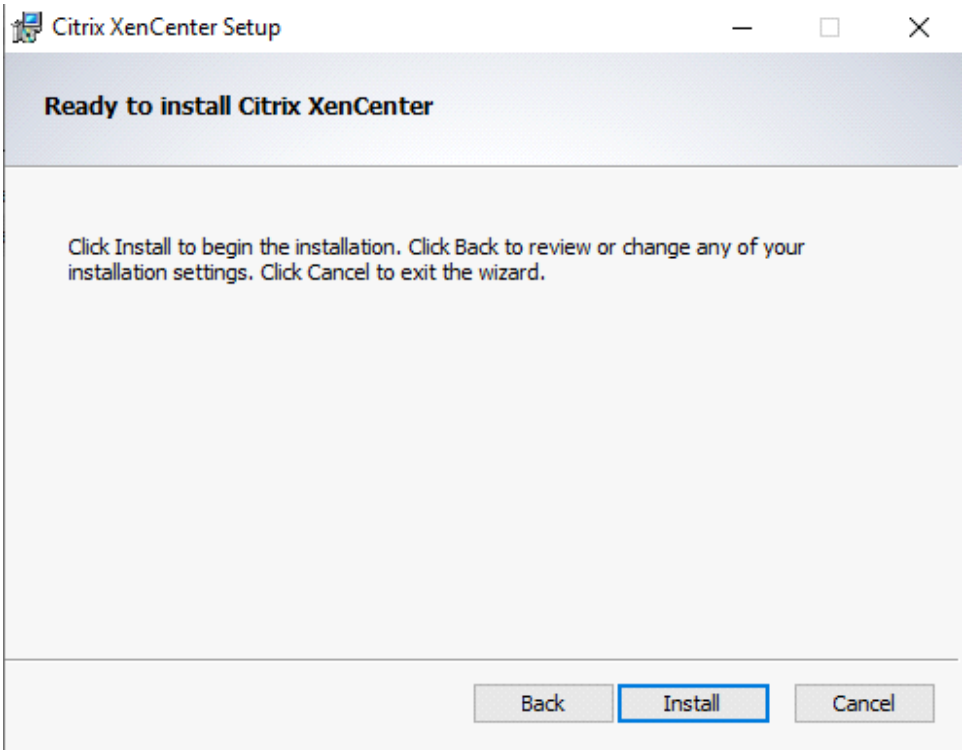
- Mount the usb by: mount -t vfat -o rw,user /dev/sb1 /mnt/myusb

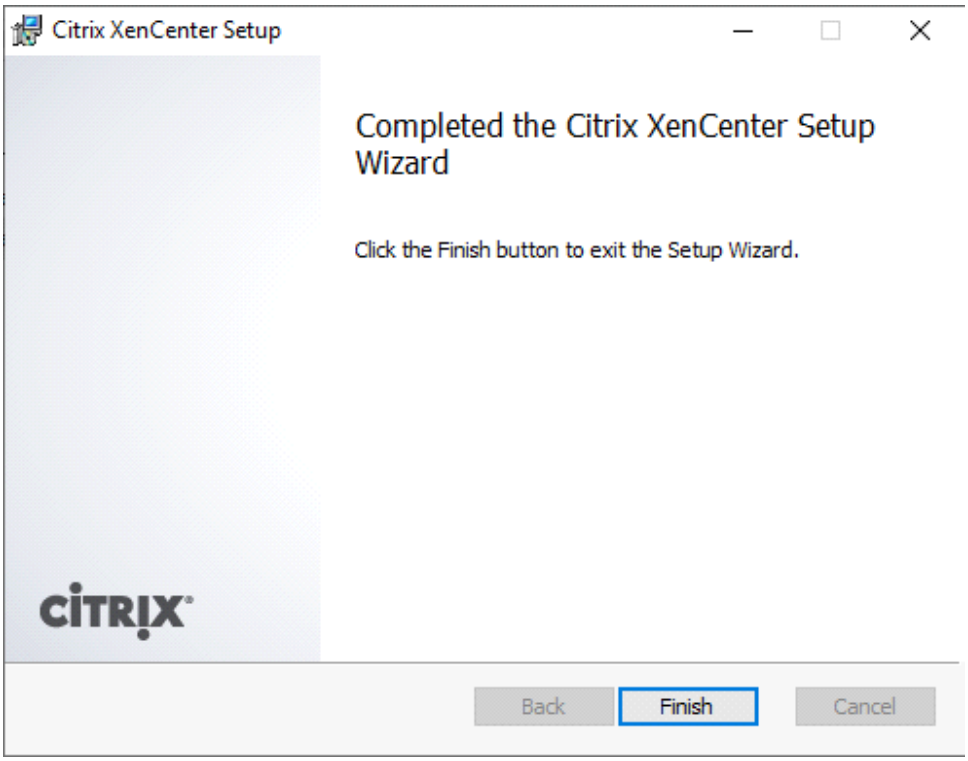


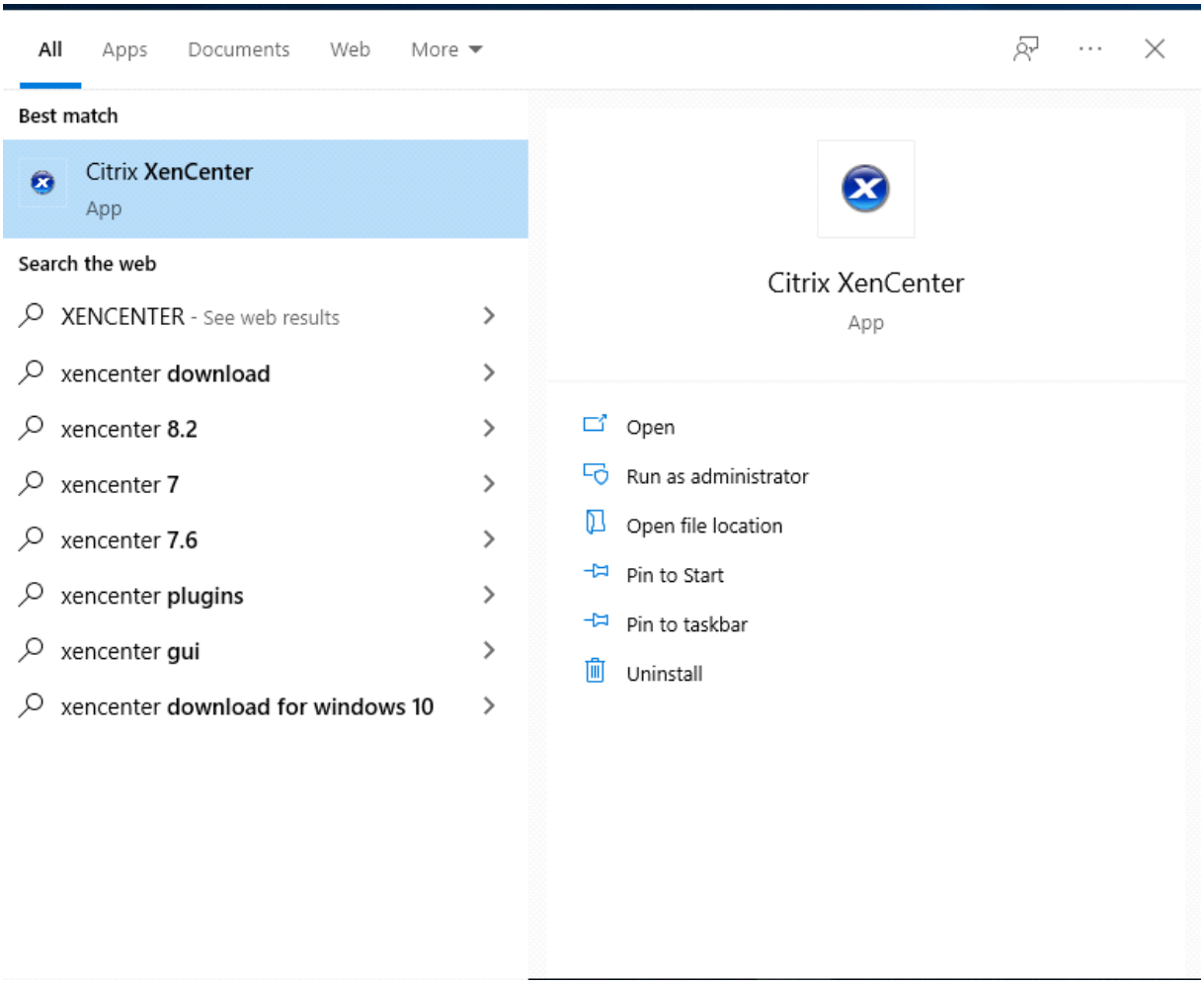
Part B(Installation of Citrix XenCenter)
Download and install XenServer-7.4.0-XenCenter.msi

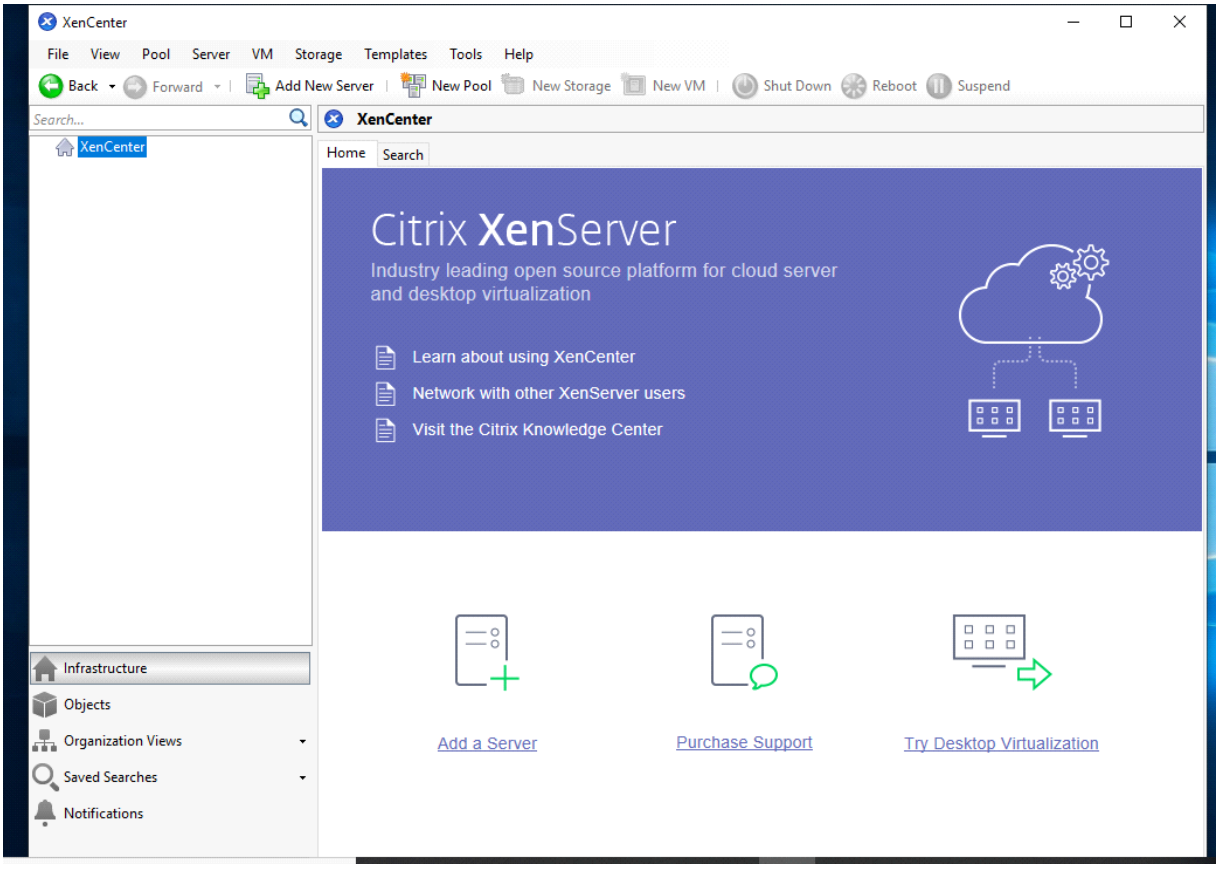



Citrix XenCenter Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
Citrix XenCenter
Citrix XenServer Health Check
Citrix XenCenter
This feature requires 77MB on your hard drive. It has 1 of 1 subfeatures selected. The subfeatures require 4324KB on your hard drive.
Location:
C:\Program Files (x86)\Citrix\XenCenter\
Browse...
Install for:
All Users
Just Me
Reset
Disk Usage
Back
Next
Cancel

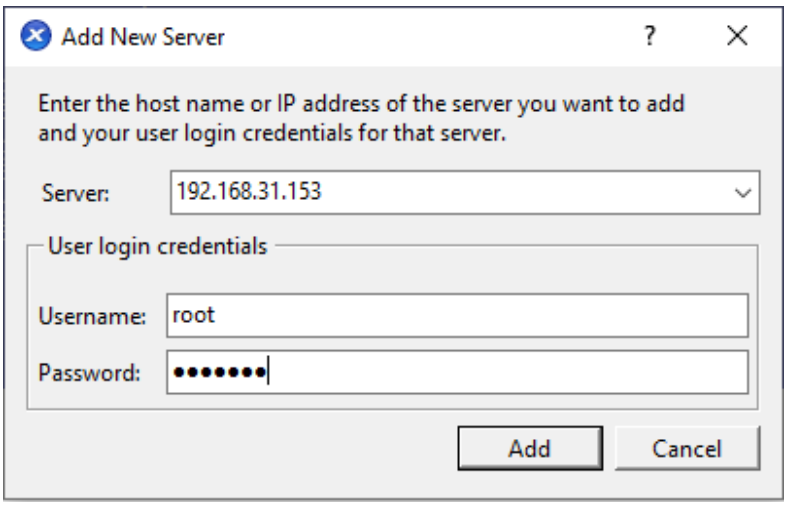

Citrix XenCenter Setup
Ready to install Citrix XenCenter
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

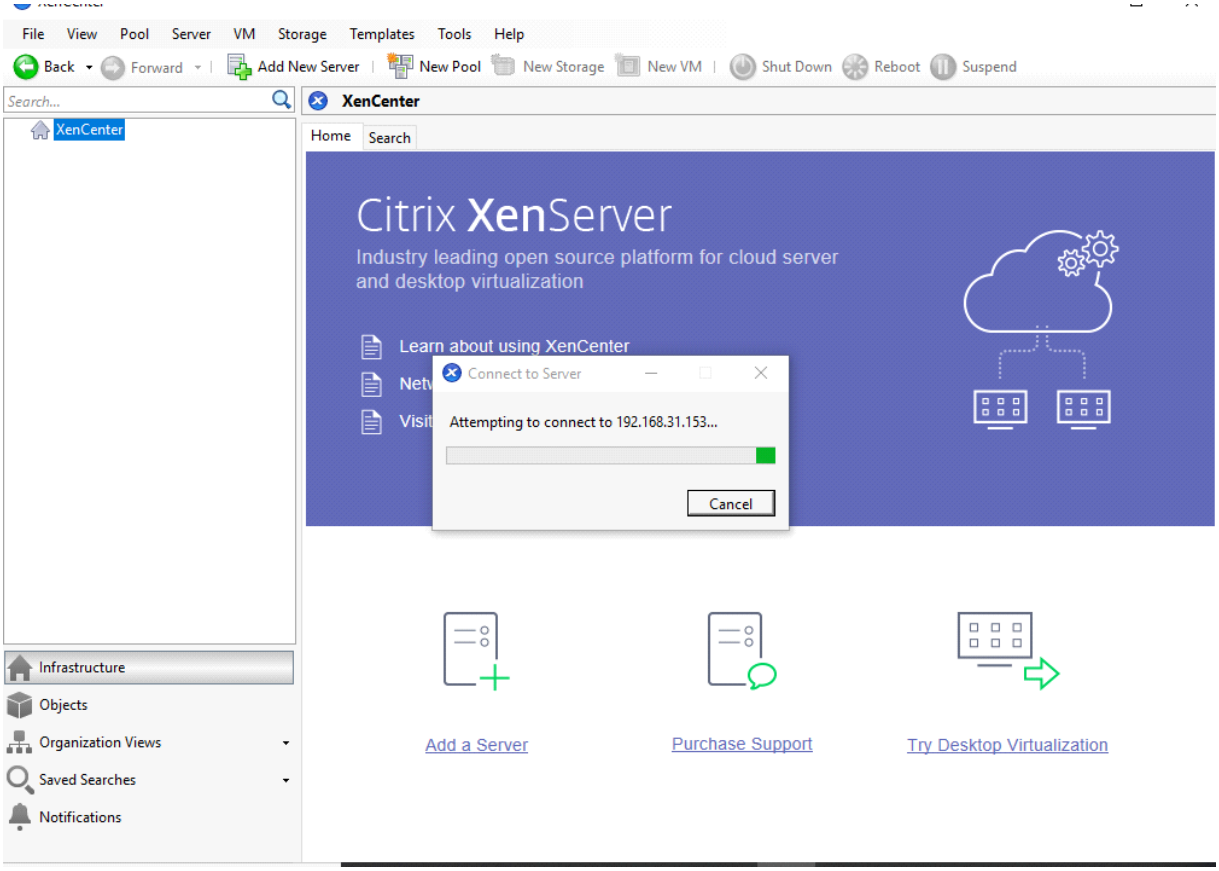

Citrix XenCenter Setup
Completed the Citrix XenCenter Setup Wizard
Click the Finish button to exit the Setup Wizard.
CITRIX
Back
Finish
Cancel

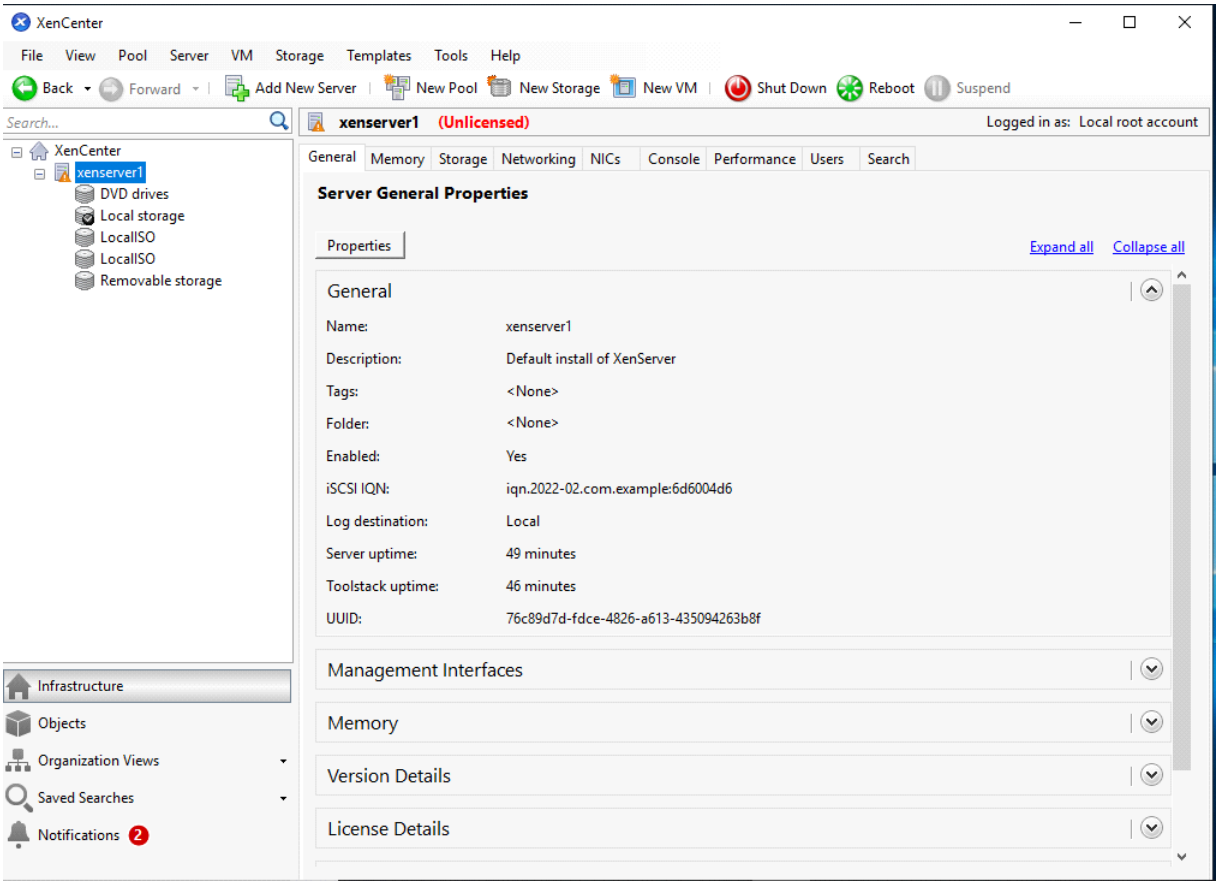

All
Apps
Documents
Web
More
Best match
Citrix XenCenter
App
Search the web
XENCENTER - See web results
xencenter download
xencenter 8.2
xencenter 7
xencenter 7.6
xencenter plugins
xencenter gui
xencenter download for windows 10
Citrix XenCenter
App
Open
Run as administrator
Open file location
Pin to Start
Pin to taskbar
Uninstall



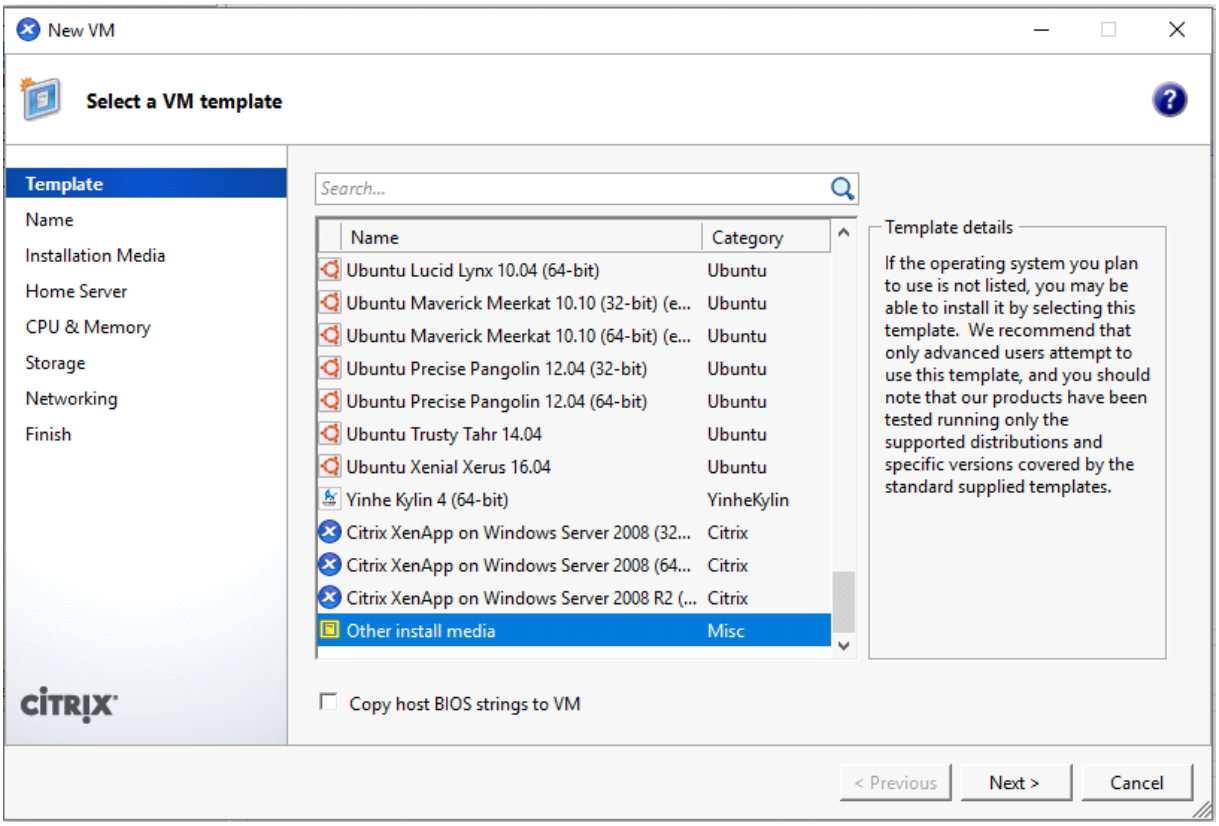
Add **New server**

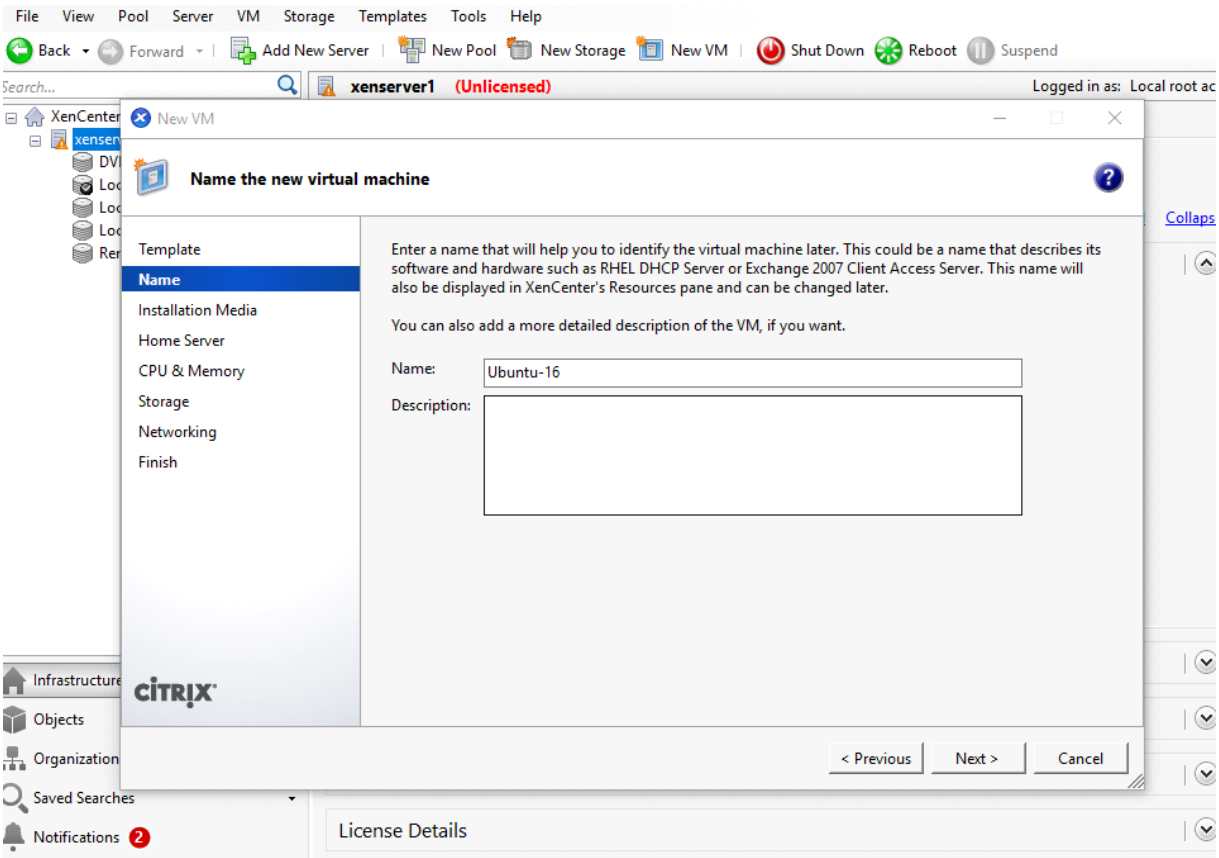


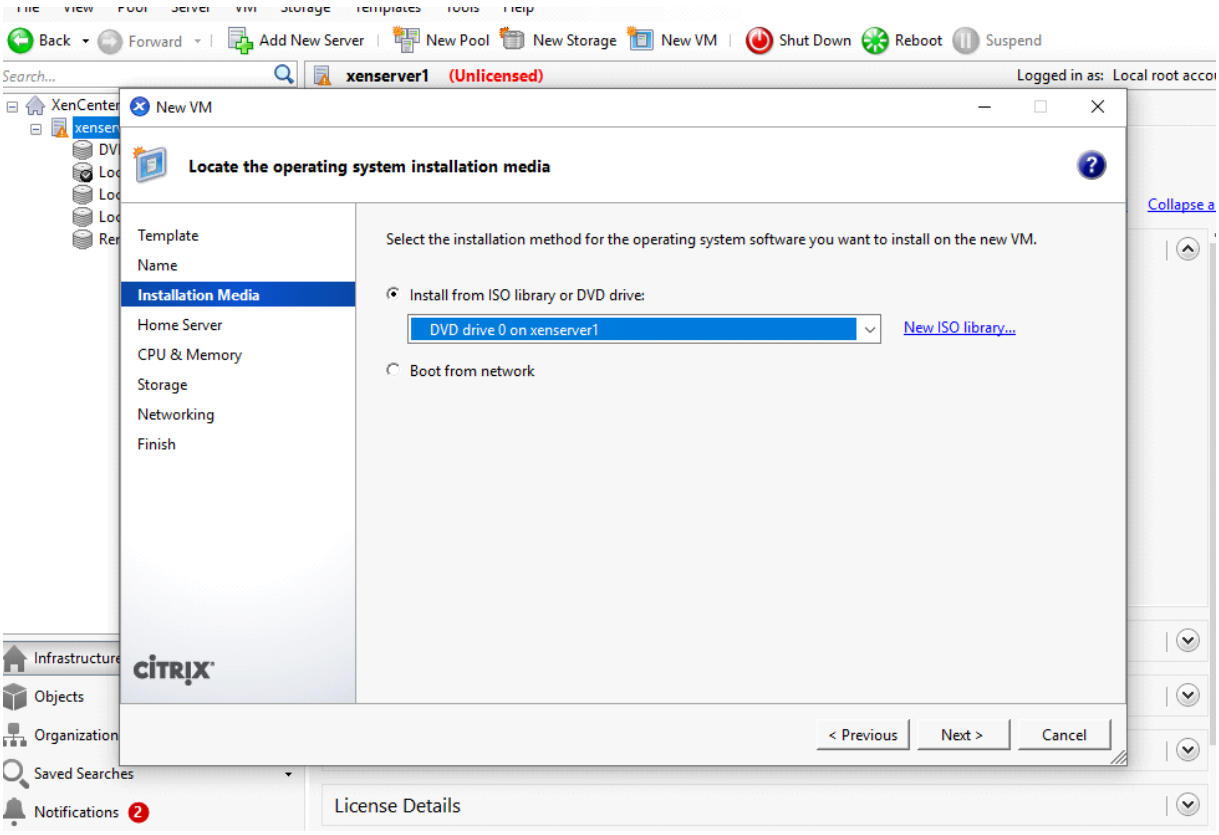

File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
Search...
XenCenter
XenCenter
Home Search
Citrix XenServer
Industry leading open source platform for cloud server and desktop virtualization
Learn about using XenCenter
Connect to Server
Attempting to connect to 192.168.31.153...
Cancel
Infrastructure
Objects
Organization Views
Saved Searches
Notifications
Add a Server
Purchase Support
Try Desktop Virtualization

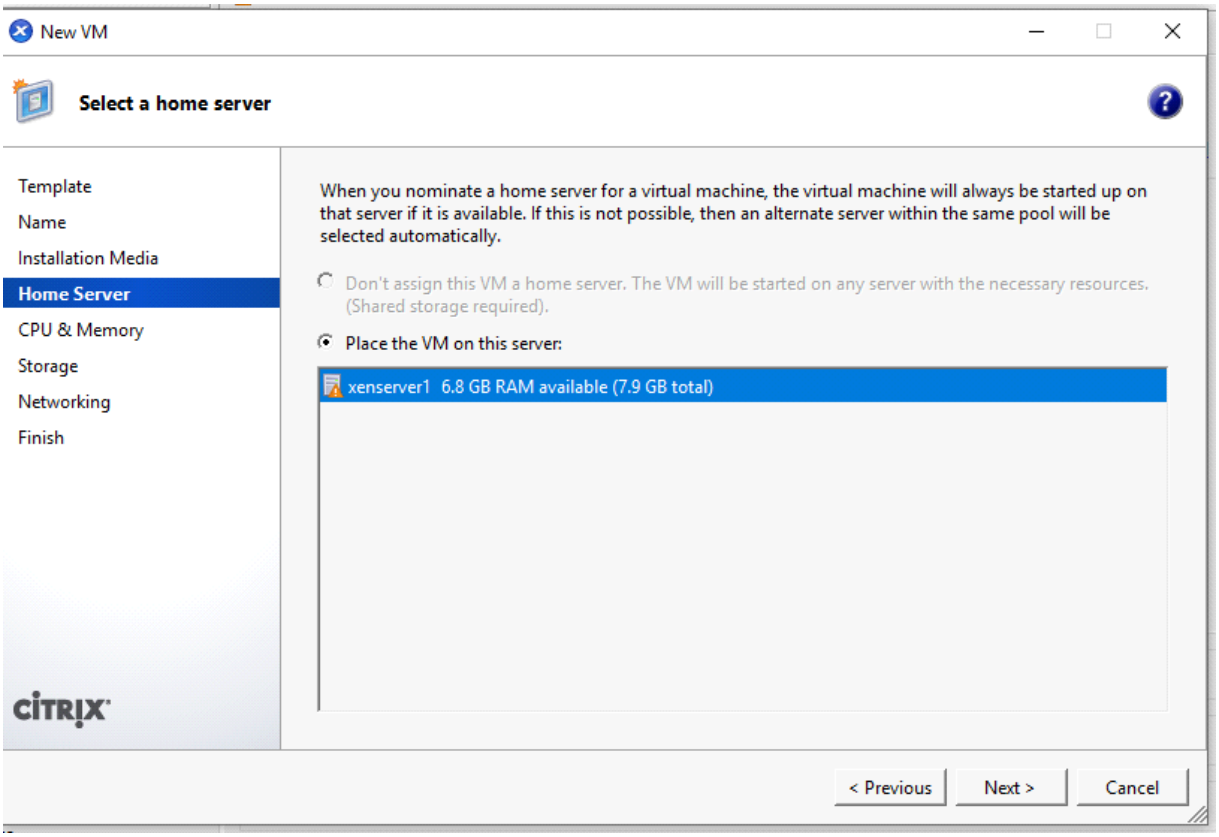

XenCenter
File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
Search...
xenserver1 (Unlicensed)
Logged in as: Local root account
XenCenter
xenserver1
DVD drives
Local storage
LocalISO
LocalISO
Removable storage
General Memory Storage Networking NICs Console Performance Users Search
Server General Properties
Properties
Expand all Collapse all
General
Name: xenserver1
Description: Default install of XenServer
Tags: <None>
Folder: <None>
Enabled: Yes
iSCSI IQN: iqn.2022-02.com.example:6d6004d6
Log destination: Local
Server uptime: 49 minutes
Toolstack uptime: 46 minutes
UUID: 76c89d7d-fdce-4826-a613-435094263b8f
Management Interfaces
Memory
Version Details
License Details
Infrastructure
Objects
Organization Views
Saved Searches
Notifications 2

Create New VM

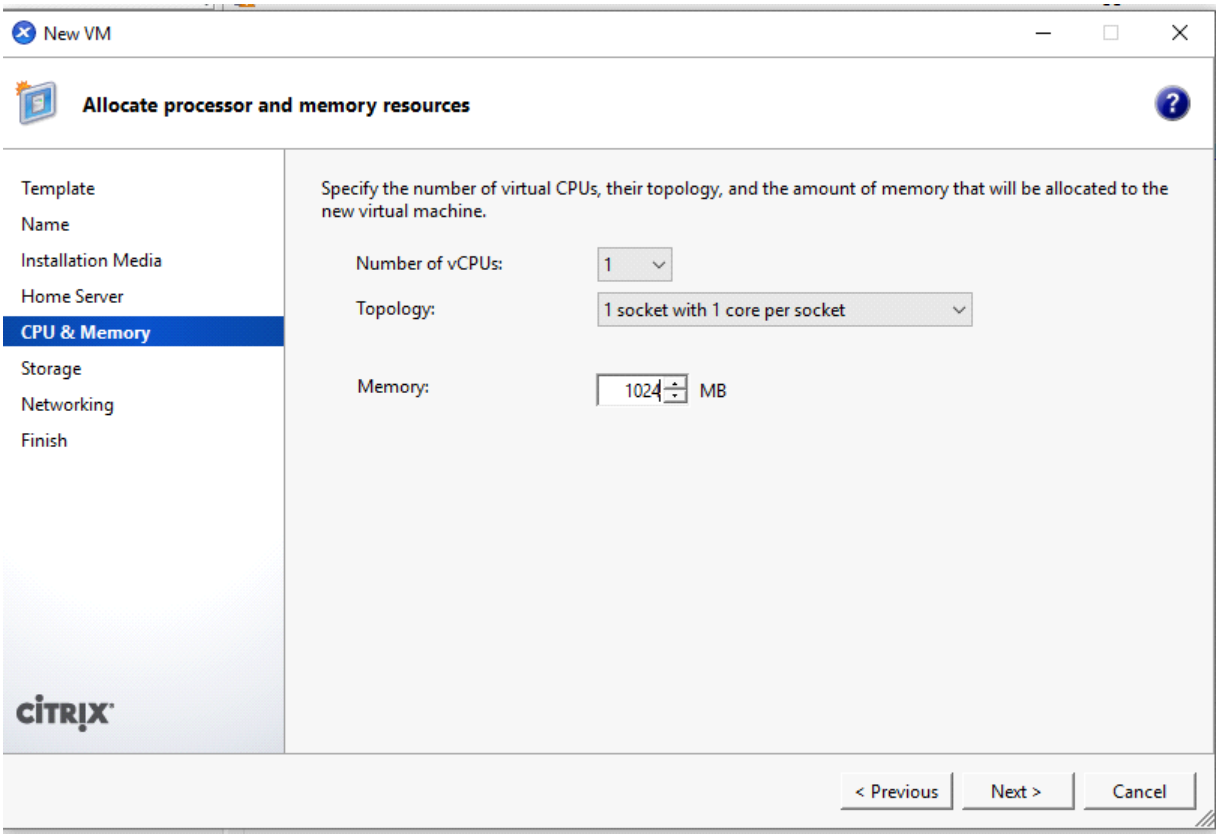


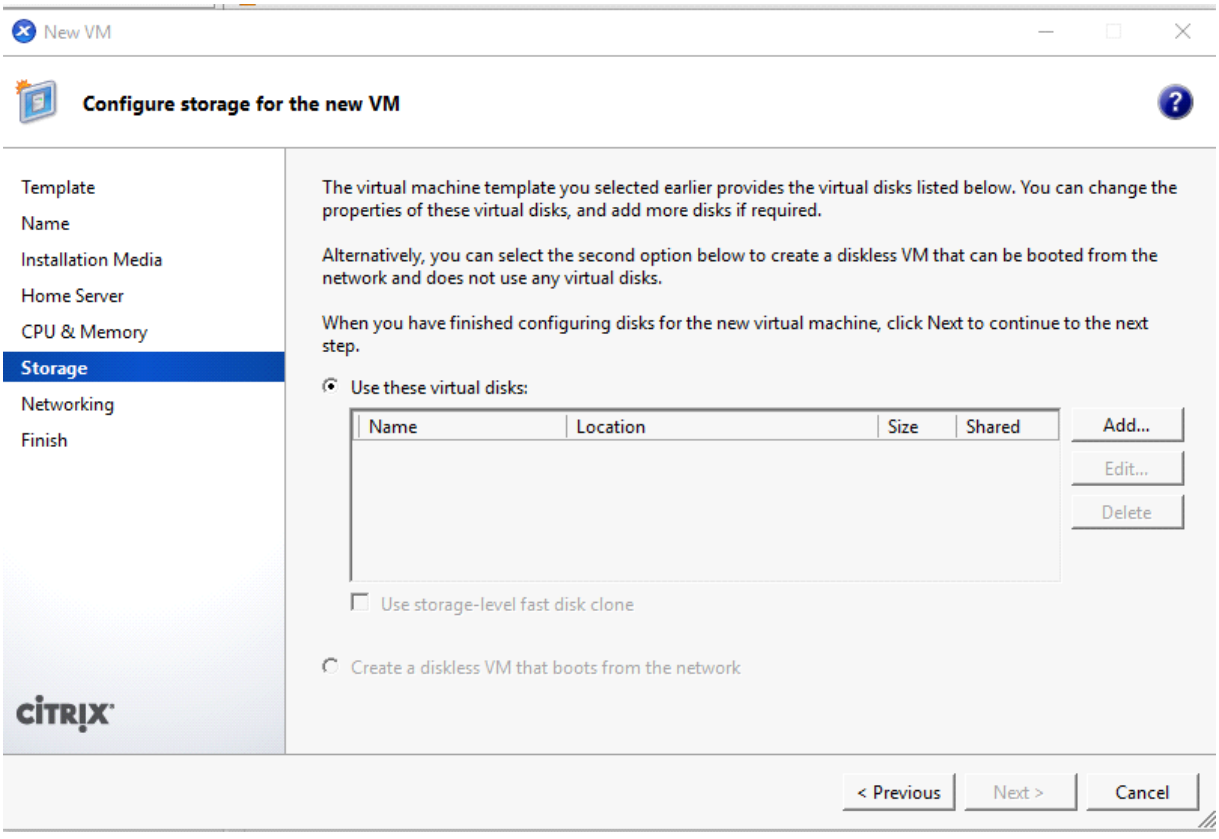

File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
xenserver1 (Unlicensed)
Logged in as: Local root ac
New VM
Name the new virtual machine
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
Enter a name that will help you to identify the virtual machine later. This could be a name that describes its software and hardware such as RHEL DHCP Server or Exchange 2007 Client Access Server. This name will also be displayed in XenCenter's Resources pane and can be changed later.
You can also add a more detailed description of the VM, if you want.
Name:
Ubuntu-16
Description:
CITRIX
< Previous
Next >
Cancel
Infrastructure
Objects
Organization
Saved Searches
Notifications
License Details

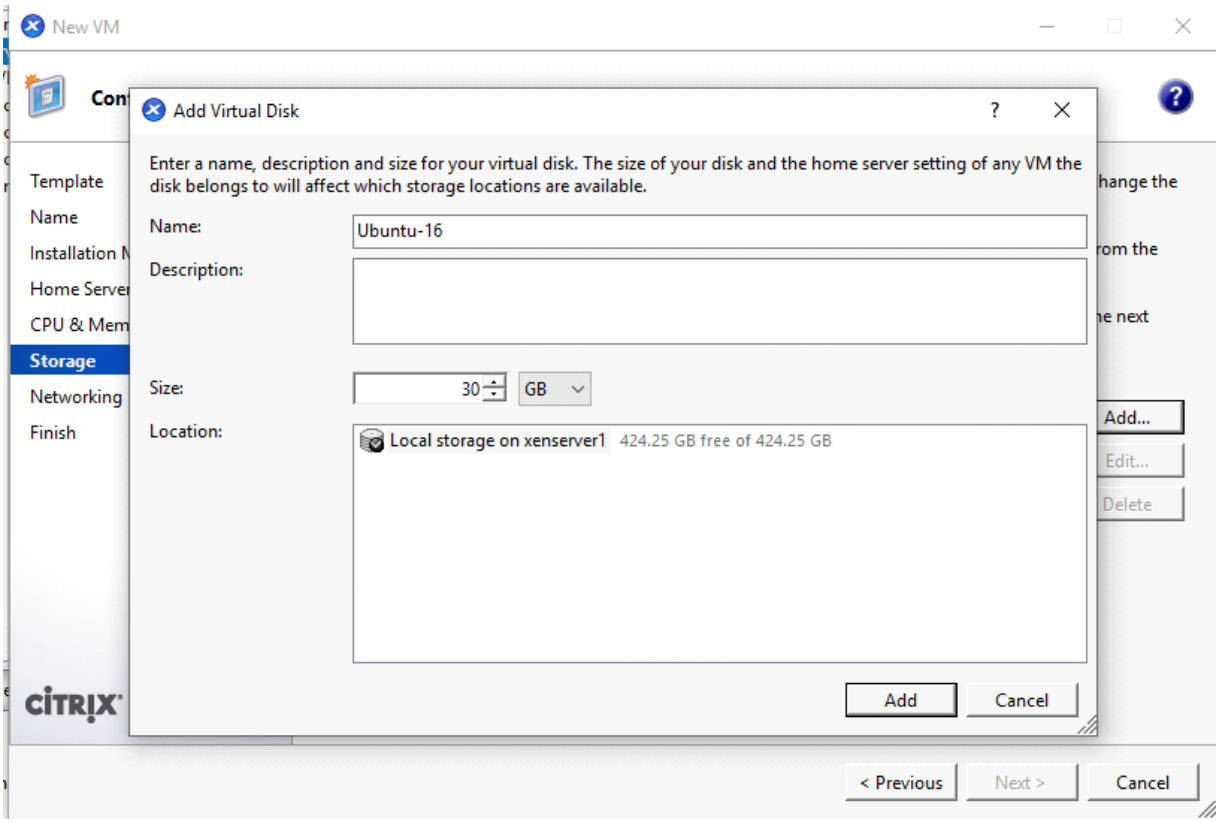

Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
xenserver1 (Unlicensed)
Logged in as: Local root acco
New VM
Locate the operating system installation media
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
Select the installation method for the operating system software you want to install on the new VM.
Install from ISO library or DVD drive:
DVD drive 0 on xenserver1
New ISO library...
Boot from network
CITRIX
< Previous
Next >
Cancel
Infrastructure
Objects
Organization
Saved Searches
Notifications
License Details

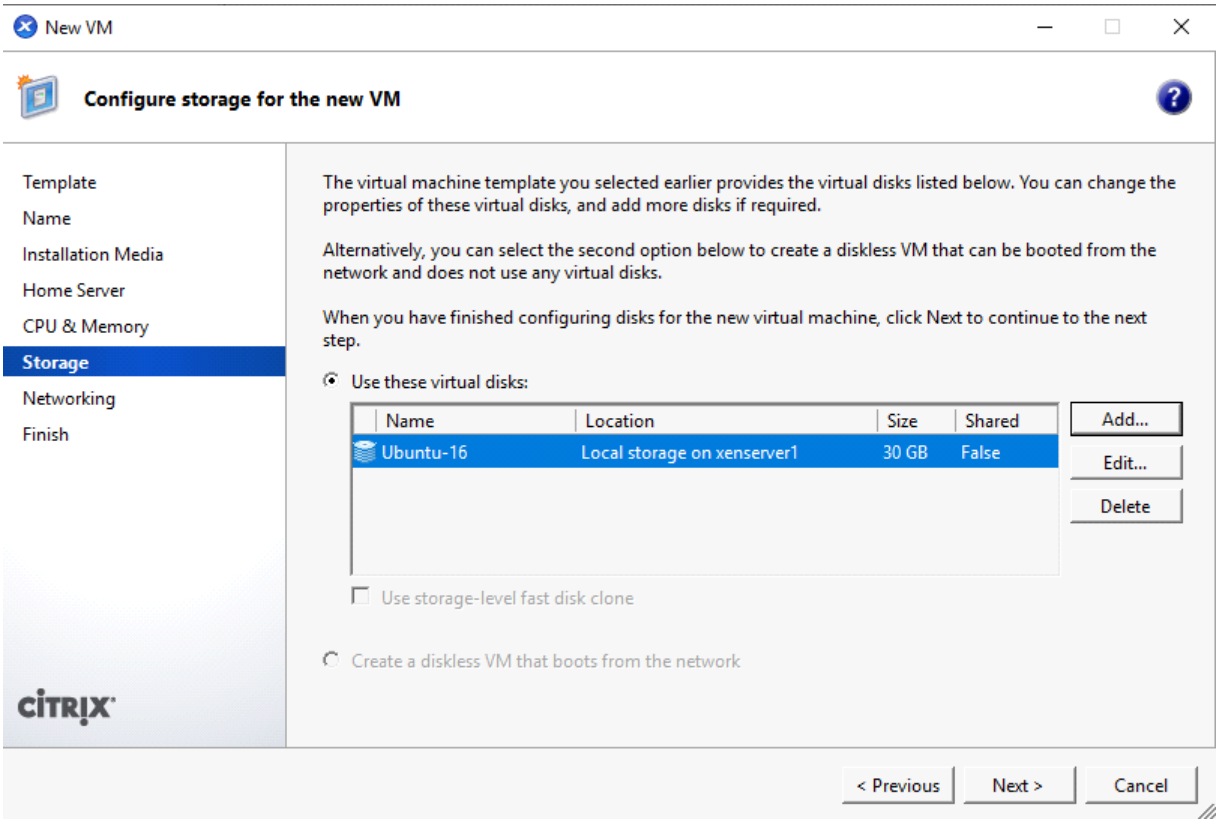


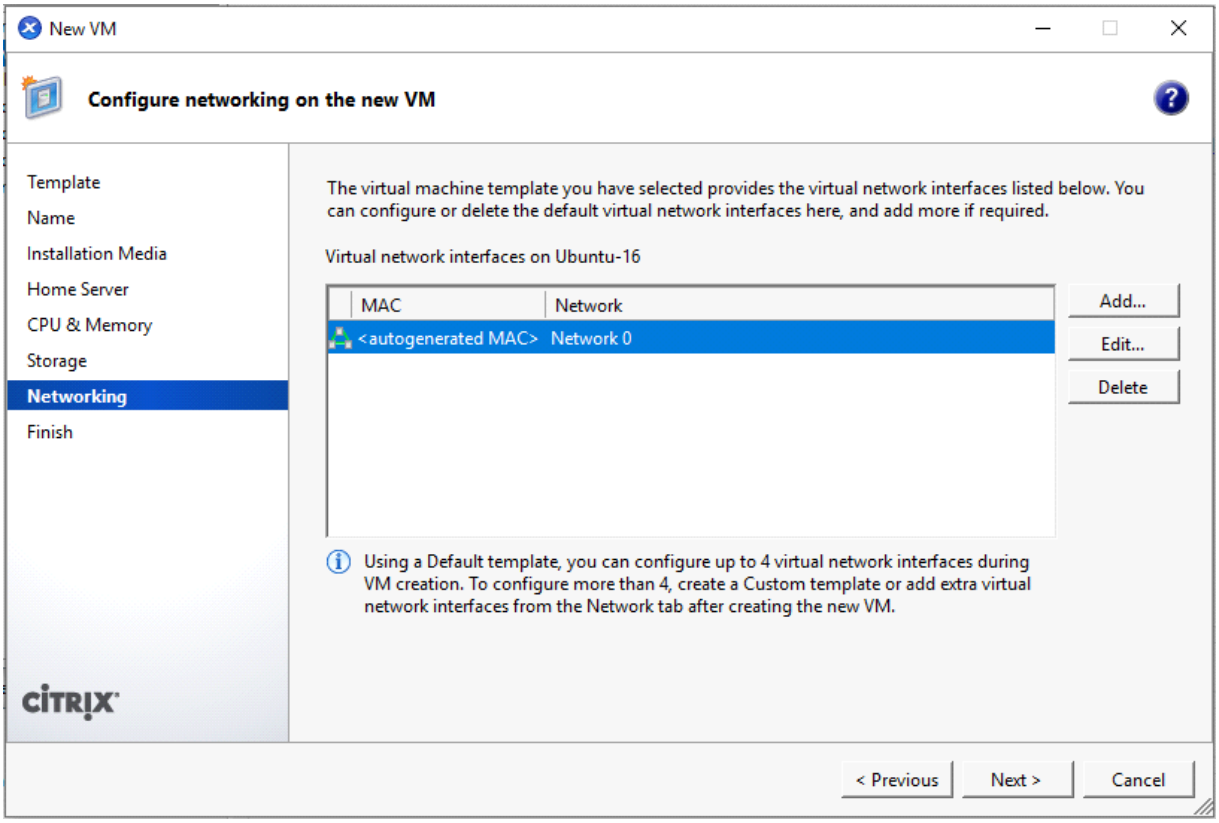
Select the configuration for your virtual machine

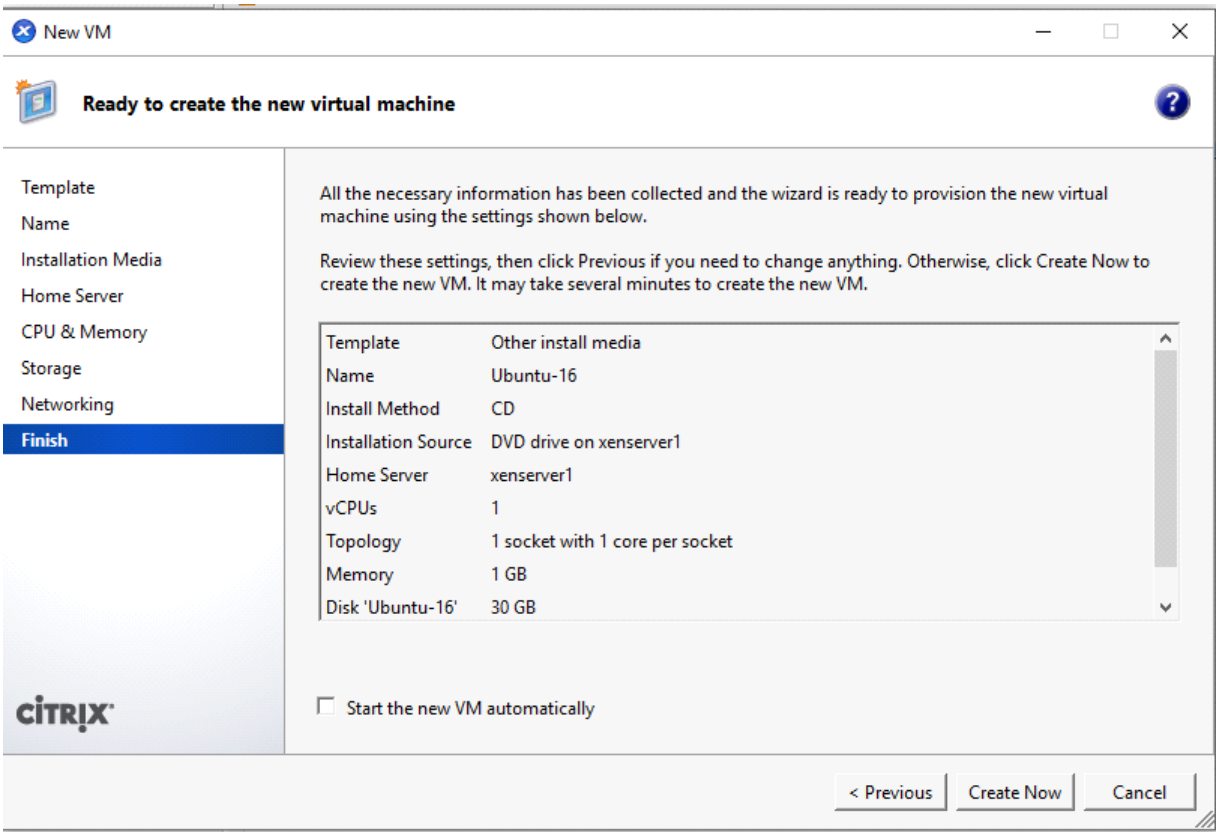

New VM
Allocate processor and memory resources
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
Specify the number of virtual CPUs, their topology, and the amount of memory that will be allocated to the new virtual machine.
Number of vCPUs:
1
Topology:
1 socket with 1 core per socket
Memory:
1024
MB
CITRIX
< Previous
Next >
Cancel

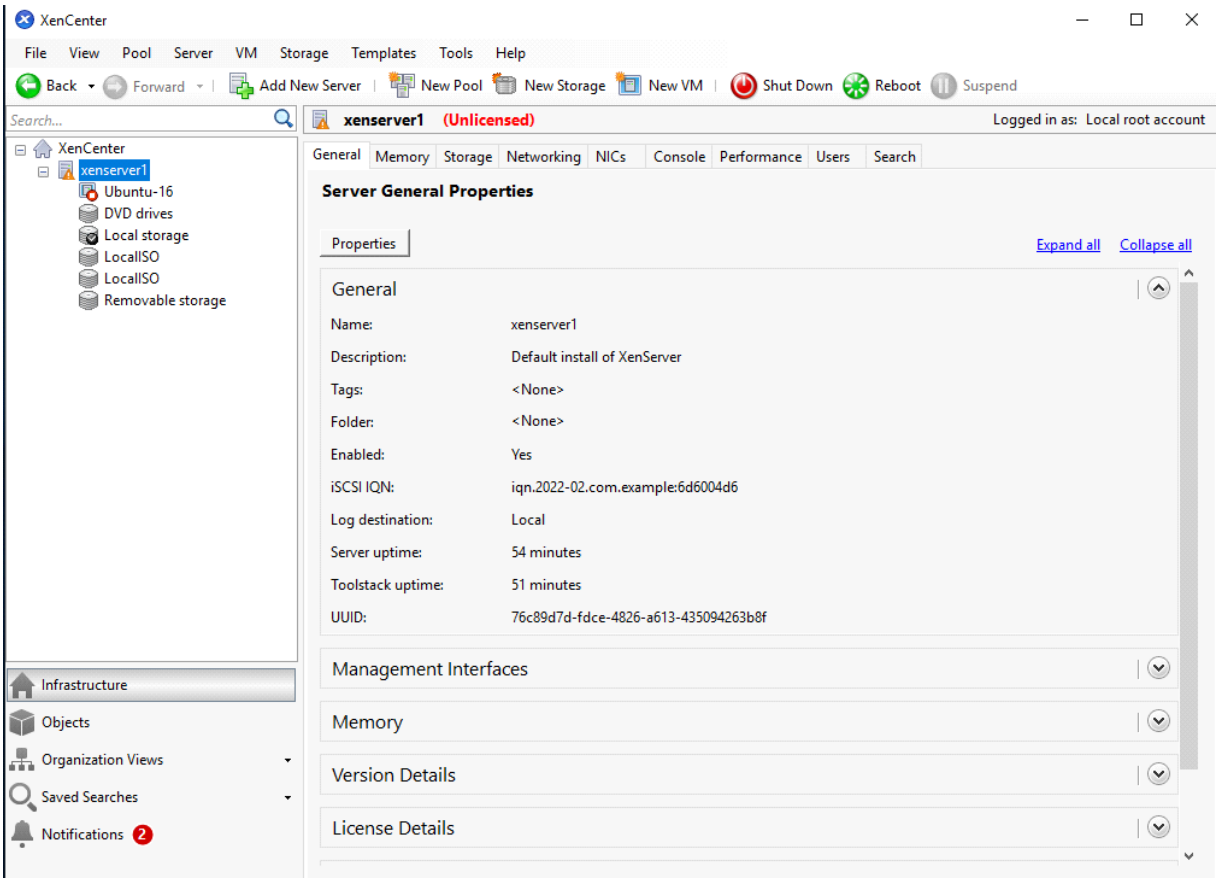

New VM
Configure storage for the new VM
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
The virtual machine template you selected earlier provides the virtual disks listed below. You can change the properties of these virtual disks, and add more disks if required.
Alternatively, you can select the second option below to create a diskless VM that can be booted from the network and does not use any virtual disks.
When you have finished configuring disks for the new virtual machine, click Next to continue to the next step.
Use these virtual disks:
Name
Location
Size
Shared
Add...
Edit...
Delete
Use storage-level fast disk clone
Create a diskless VM that boots from the network
CITRIX
< Previous
Next >
Cancel


New VM
Add Virtual Disk
Enter a name, description and size for your virtual disk. The size of your disk and the home server setting of any VM the disk belongs to will affect which storage locations are available.
Name:
Ubuntu-16
Description:
Size:
30
GB
Location:
Local storage on xenserver1
424.25 GB free of 424.25 GB
Add
Cancel
Template
Name
Installation M
Home Server
CPU & Mem
Storage
Networking
Finish
Add...
Edit...
Delete
CITRIX
< Previous
Next >
Cancel

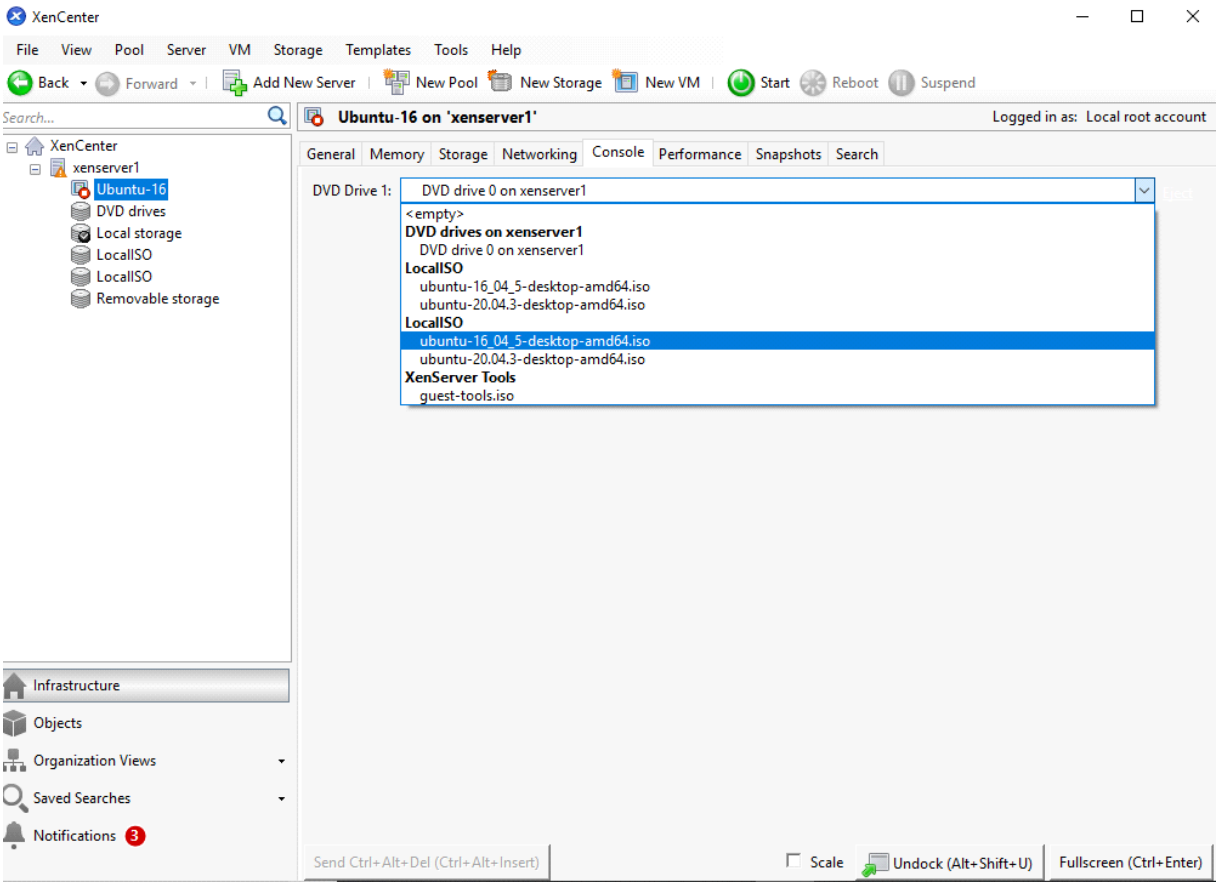

New VM
Configure storage for the new VM
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
The virtual machine template you selected earlier provides the virtual disks listed below. You can change the properties of these virtual disks, and add more disks if required.
Alternatively, you can select the second option below to create a diskless VM that can be booted from the network and does not use any virtual disks.
When you have finished configuring disks for the new virtual machine, click Next to continue to the next step.
Use these virtual disks:
Name
Location
Size
Shared
Ubuntu-16
Local storage on xenserver1
30 GB
False
Add...
Edit...
Delete
Use storage-level fast disk clone
Create a diskless VM that boots from the network
CITRIX
< Previous
Next >
Cancel


New VM
Configure networking on the new VM
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
The virtual machine template you have selected provides the virtual network interfaces listed below. You can configure or delete the default virtual network interfaces here, and add more if required.
Virtual network interfaces on Ubuntu-16
MAC
Network
<autogenerated MAC>
Network 0
Add...
Edit...
Delete
Using a Default template, you can configure up to 4 virtual network interfaces during VM creation. To configure more than 4, create a Custom template or add extra virtual network interfaces from the Network tab after creating the new VM.
CITRIX
< Previous
Next >
Cancel

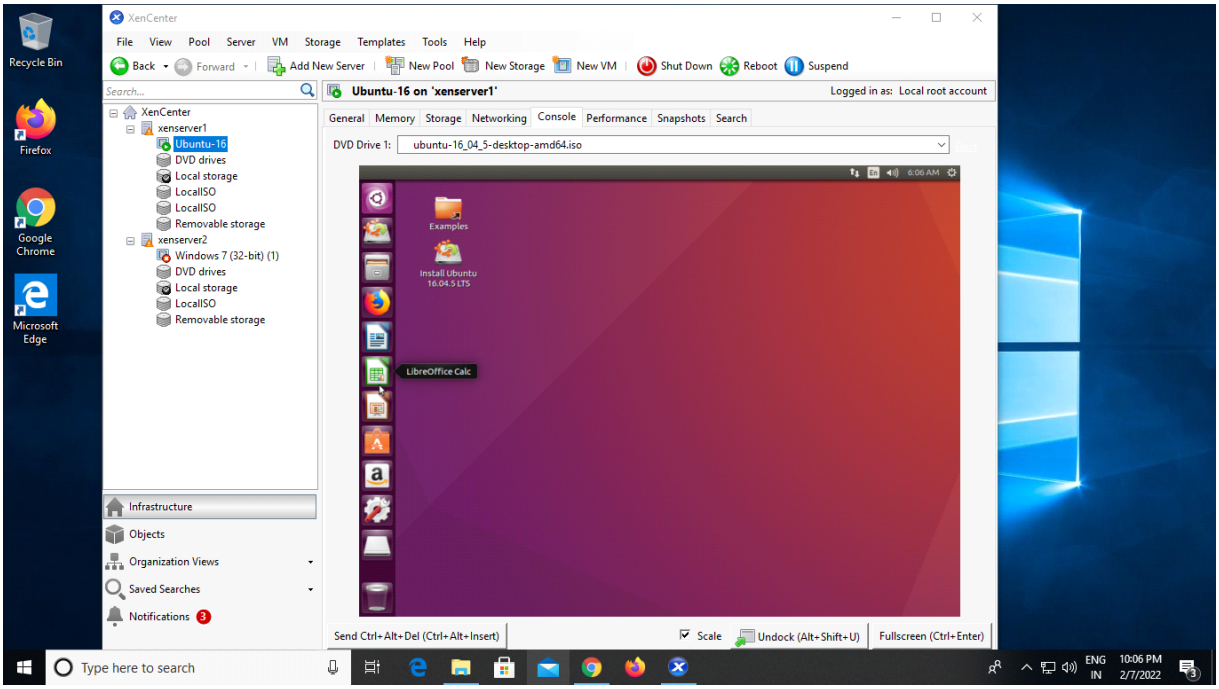

New VM
Ready to create the new virtual machine
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
All the necessary information has been collected and the wizard is ready to provision the new virtual machine using the settings shown below.
Review these settings, then click Previous if you need to change anything. Otherwise, click Create Now to create the new VM. It may take several minutes to create the new VM.
Template
Other install media
Name
Ubuntu-16
Install Method
CD
Installation Source
DVD drive on xenserver1
Home Server
xenserver1
vCPUs
1
Topology
1 socket with 1 core per socket
Memory
1 GB
Disk 'Ubuntu-16'
30 GB
Start the new VM automatically
CITRIX
< Previous
Create Now
Cancel


XenCenter
File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
Search...
xenserver1 (Unlicensed)
Logged in as: Local root account
XenCenter
xenserver1
Ubuntu-16
DVD drives
Local storage
LocalISO
LocalISO
Removable storage
General Memory Storage Networking NICs Console Performance Users Search
Server General Properties
Properties
Expand all Collapse all
General
Name: xenserver1
Description: Default install of XenServer
Tags: <None>
Folder: <None>
Enabled: Yes
iSCSI IQN: iqn.2022-02.com.example:6d6004d6
Log destination: Local
Server uptime: 54 minutes
Toolstack uptime: 51 minutes
UUID: 76c89d7d-fdce-4826-a613-435094263b8f
Management Interfaces
Memory
Version Details
License Details
Infrastructure
Objects
Organization Views
Saved Searches
Notifications 2

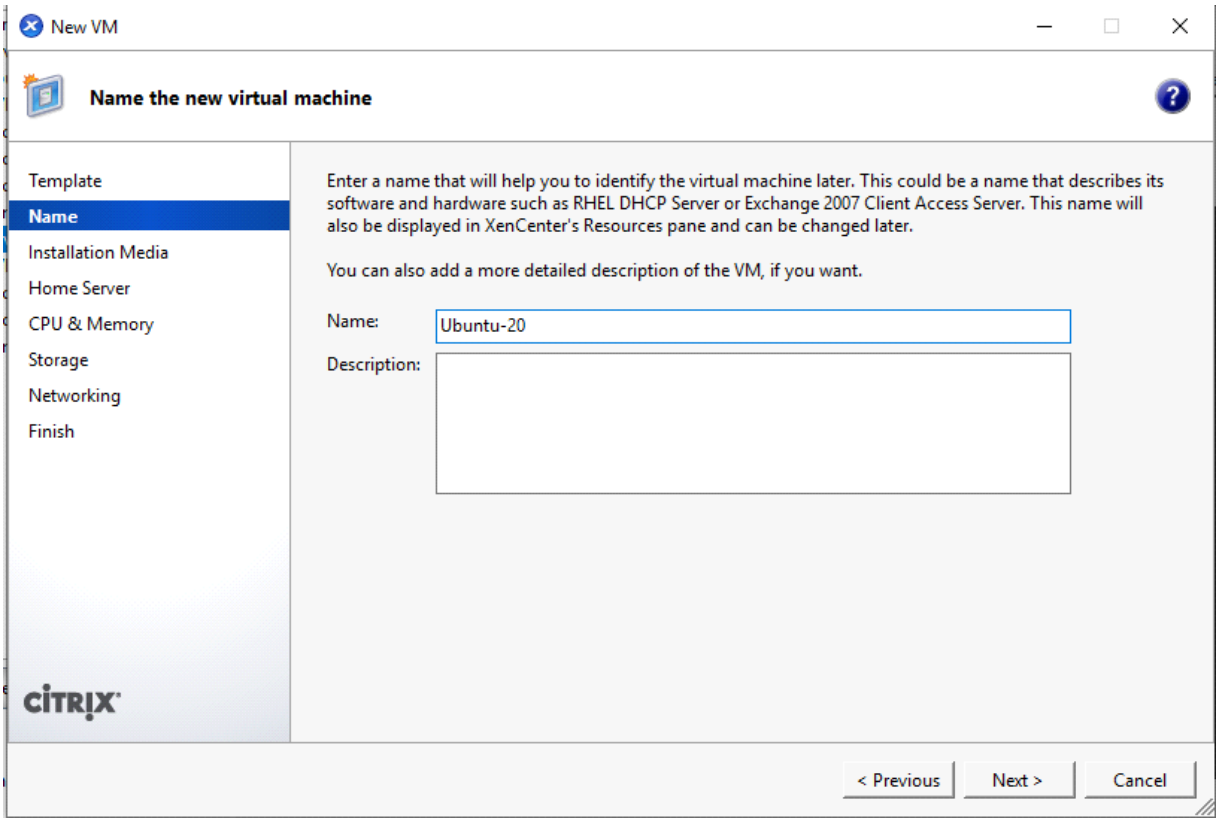
Go to console of Ubuntu-16(VM)

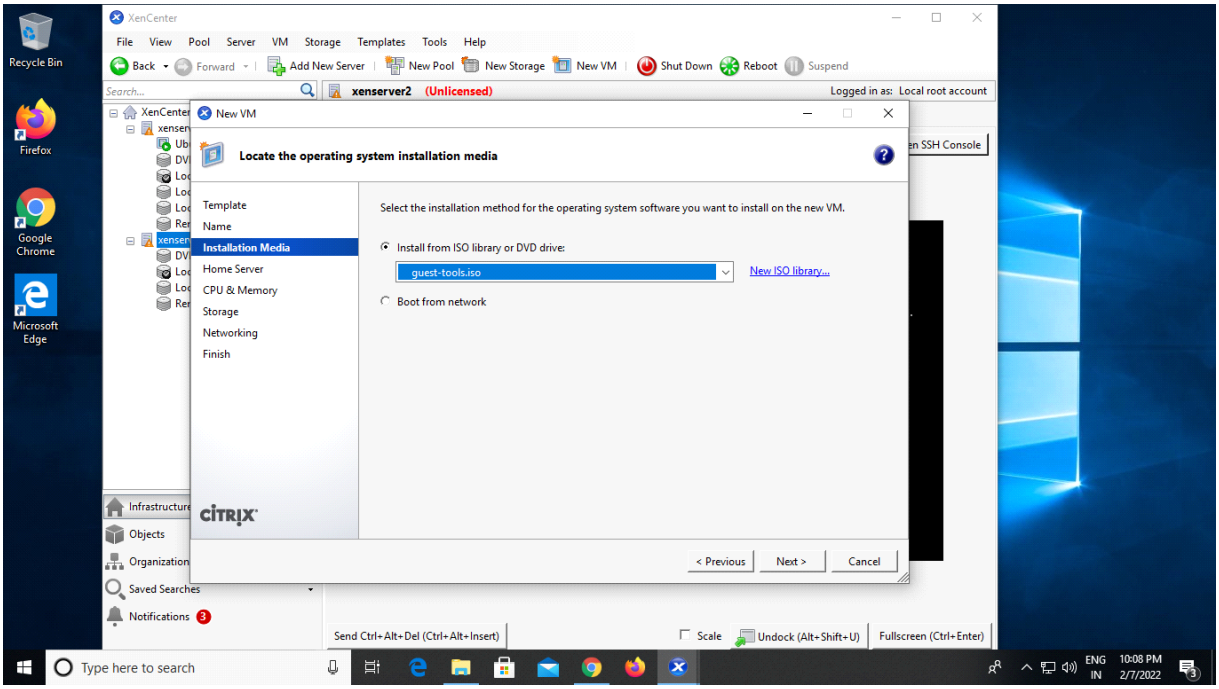


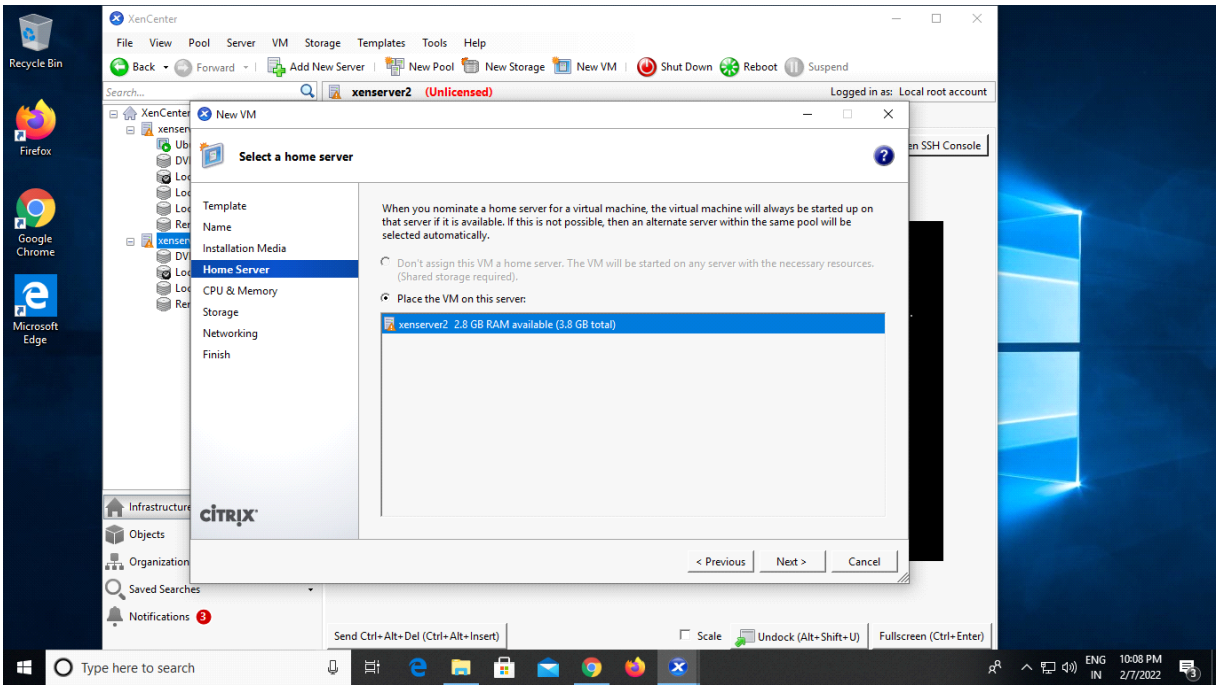
Start the VM
Install ubuntu/windows(steps already done in EXPT NO 2)

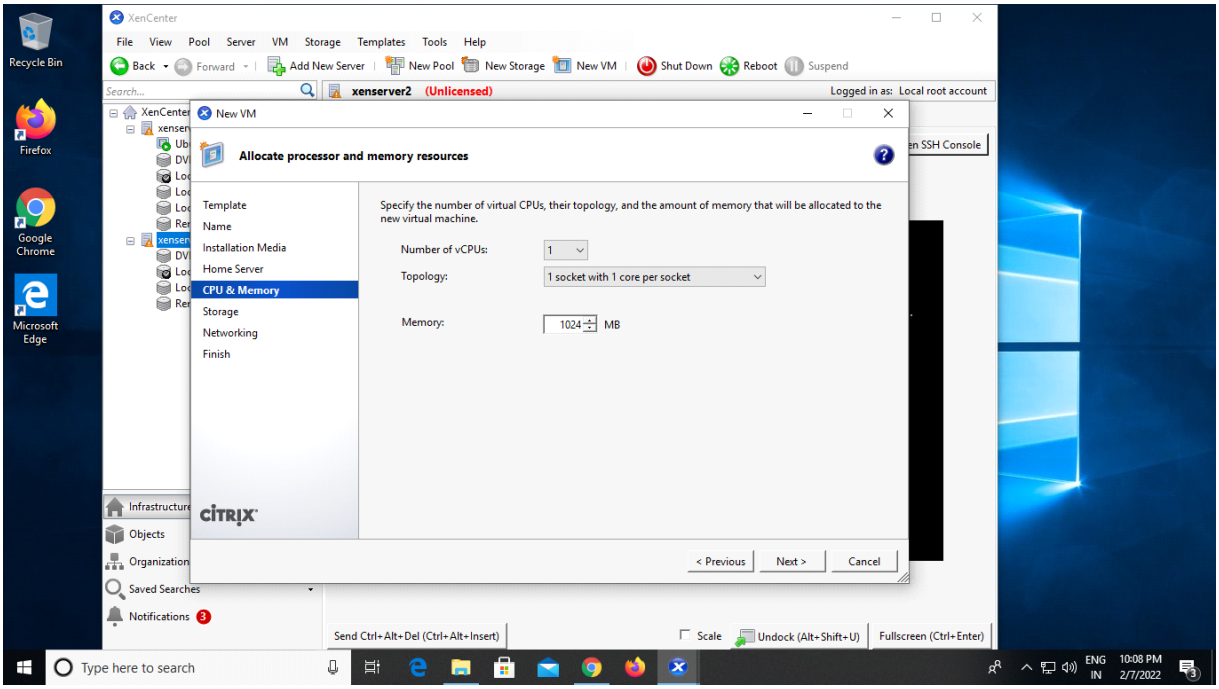


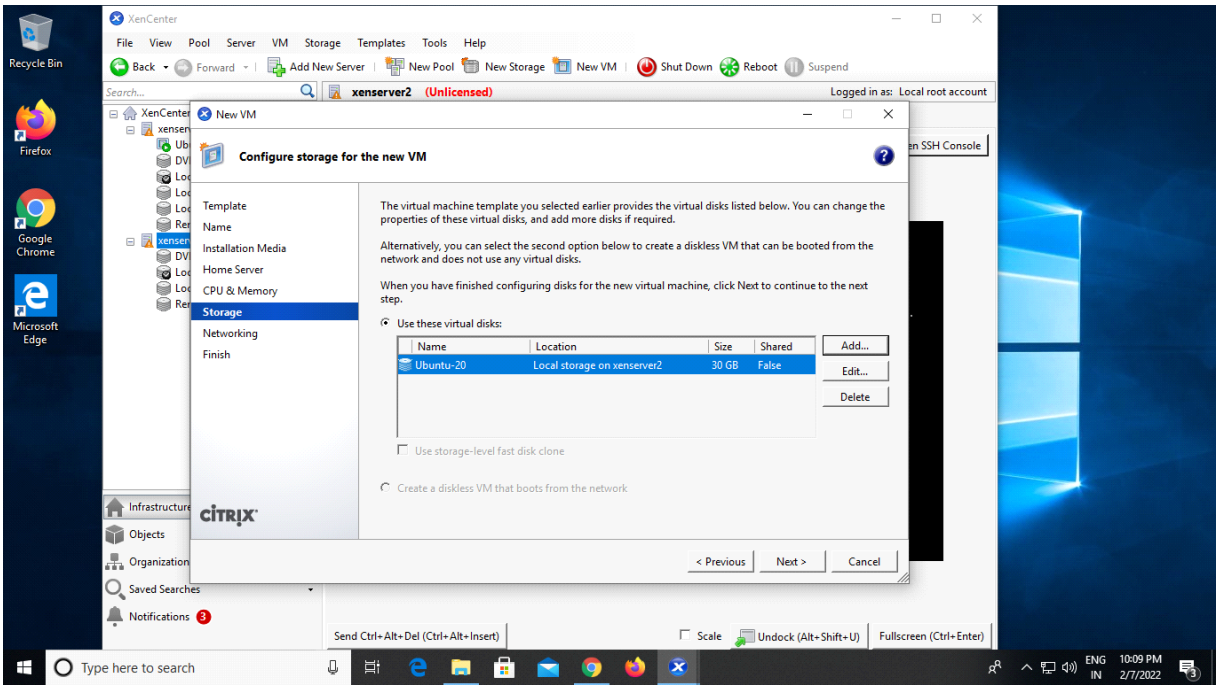
Create-Add new server(xenserver2)
And create a new VM in XenServer2

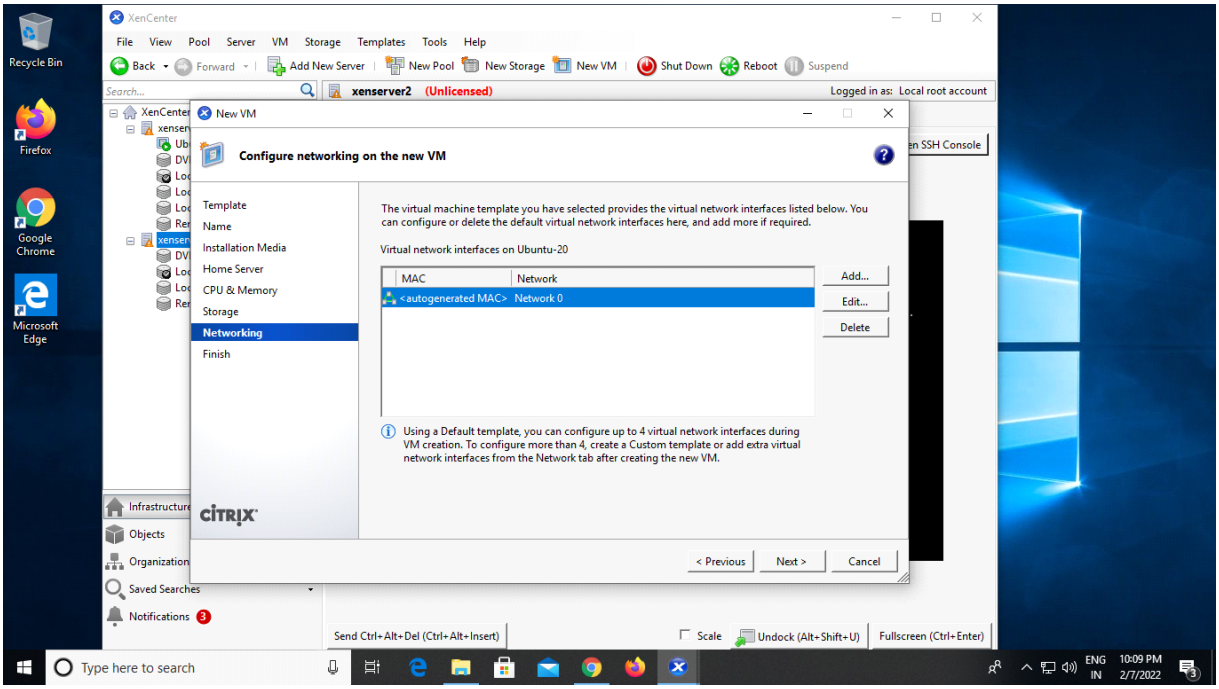


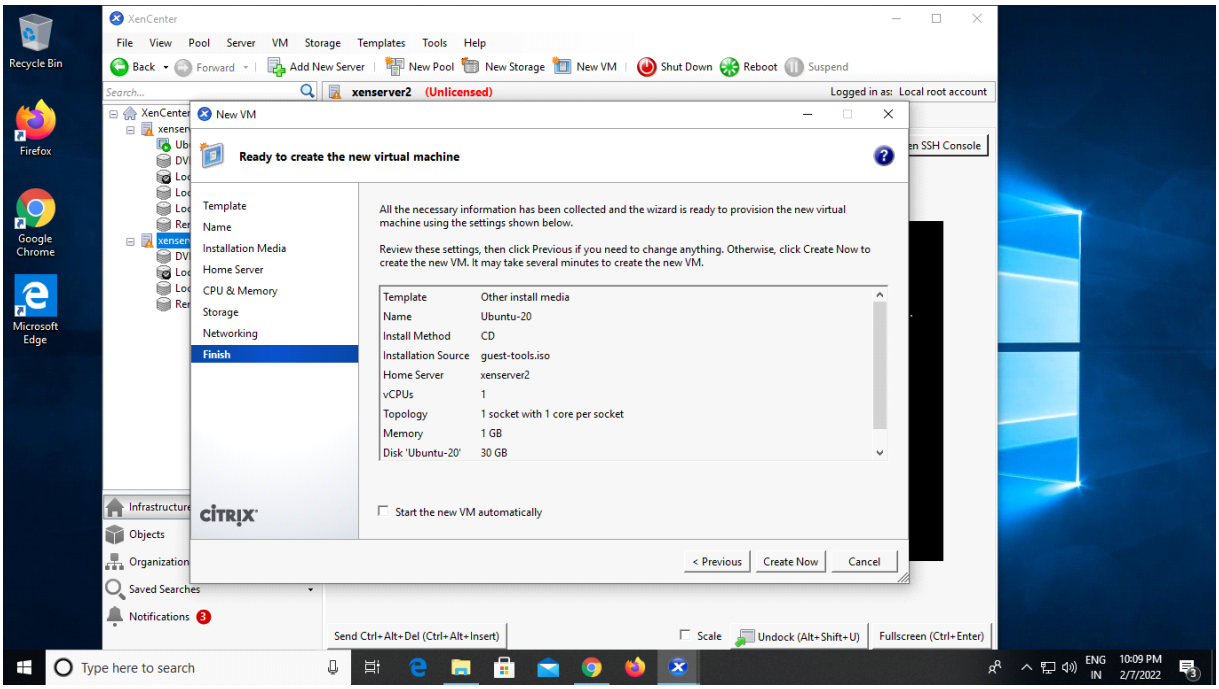

XenCenter
File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
xenserver2 (Unlicensed)
Logged in as: Local root account
New VM
Locate the operating system installation media
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
Select the installation method for the operating system software you want to install on the new VM.
Install from ISO library or DVD drive:
guest-tools.iso
New ISO library...
Boot from network
CITRIX
< Previous
Next >
Cancel
Infrastructure
Objects
Organization
Saved Searches
Notifications
Send Ctrl+Alt+Del (Ctrl+Alt+Insert)
Scale
Undock (Alt+Shift+U)
Fullscreen (Ctrl+Enter)
Type here to search
ENG
IN
10:08 PM
2/7/2022


XenCenter
File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
xenserver2 (Unlicensed)
Logged in as: Local root account
New VM
Select a home server
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
When you nominate a home server for a virtual machine, the virtual machine will always be started up on that server if it is available. If this is not possible, then an alternate server within the same pool will be selected automatically.
Don't assign this VM a home server. The VM will be started on any server with the necessary resources. (Shared storage required).
Place the VM on this server:
xenserver2 2.8 GB RAM available (3.8 GB total)
CITRIX
< Previous
Next >
Cancel
Infrastructure
Objects
Organization
Saved Searches
Notifications
Send Ctrl+Alt+Del (Ctrl+Alt+Insert)
Scale
Undock (Alt+Shift+U)
Fullscreen (Ctrl+Enter)
Type here to search
ENG
IN
10:08 PM
2/7/2022

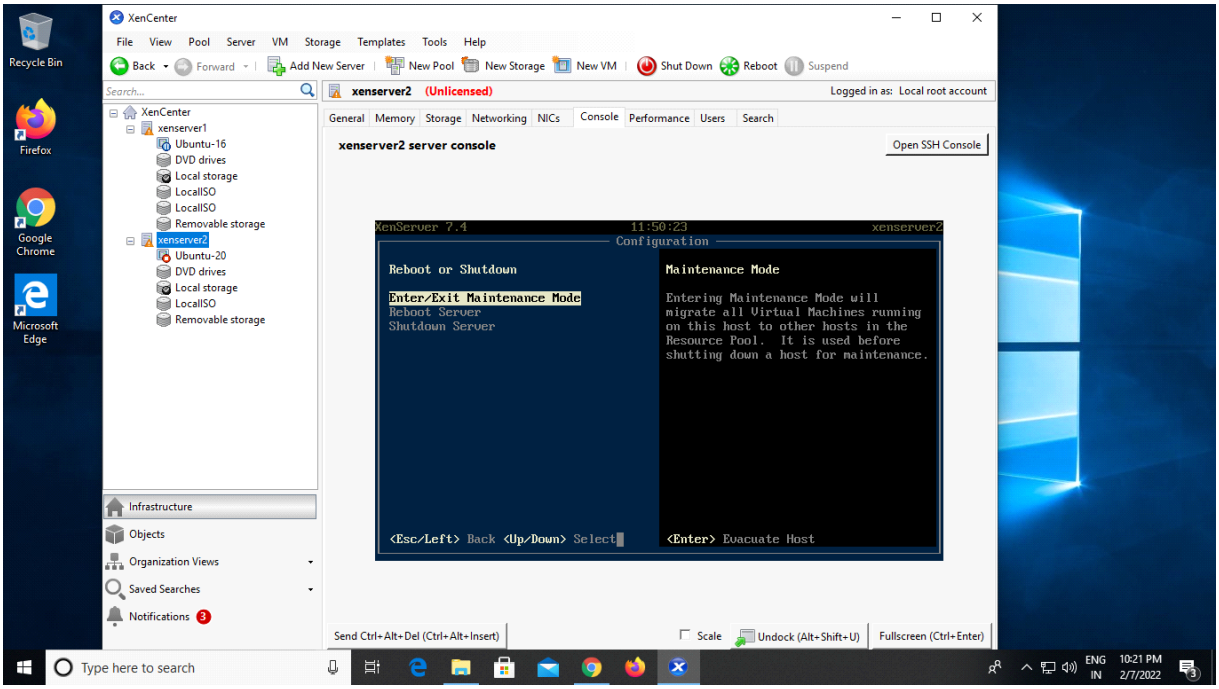

XenCenter
File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
xenserver2 (Unlicensed)
Logged in as: Local root account
New VM
Allocate processor and memory resources
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
Specify the number of virtual CPUs, their topology, and the amount of memory that will be allocated to the new virtual machine.
Number of vCPUs: 1
Topology: 1 socket with 1 core per socket
Memory: 1024 MB
CITRIX
< Previous
Next >
Cancel
Infrastructure
Objects
Organization
Saved Searches
Notifications 3
Send Ctrl+Alt+Del (Ctrl+Alt+Insert)
Scale
Undock (Alt+Shift+U)
Fullscreen (Ctrl+Enter)
Type here to search
ENG IN
10:08 PM 2/7/2022


XenCenter
File View Pool Server VM Storage Templates Tools Help
Back Forward Add New Server New Pool New Storage New VM Shut Down Reboot Suspend
xenserver2 (Unlicensed)
Logged in as: Local root account
New VM
Configure storage for the new VM
Template
Name
Installation Media
Home Server
CPU & Memory
Storage
Networking
Finish
The virtual machine template you selected earlier provides the virtual disks listed below. You can change the properties of these virtual disks, and add more disks if required.
Alternatively, you can select the second option below to create a diskless VM that can be booted from the network and does not use any virtual disks.
When you have finished configuring disks for the new virtual machine, click Next to continue to the next step.
Use these virtual disks:
Name Location Size Shared
Ubuntu-20 Local storage on xenserver2 30 GB False
Add...
Edit...
Delete
Use storage-level fast disk clone
Create a diskless VM that boots from the network
CITRIX
< Previous
Next >
Cancel
Infrastructure
Objects
Organization
Saved Searches
Notifications 3
Send Ctrl+Alt+Del (Ctrl+Alt+Insert)
Scale
Undock (Alt+Shift+U)
Fullscreen (Ctrl+Enter)
Type here to search
ENG IN
10:09 PM 2/7/2022





Opening Console of XenServer2
(Create VMs under XenServer2)



Shutdown your Server(s) and VMs from Console