Practical – 4

Aim: Creating and using Virtual Machine using Xen Hypervisor (Private Cloud).

Theory:

Xen is an open-source type-1 or baremetal hypervisor, which makes it possible to run many instances of an operating system or indeed different operating systems in parallel on a single machine (or host). Xen is the only type-1 hypervisor that is available as open source. Xen is used as the basis for a number of different commercial and open source applications, such as: server virtualization, Infrastructure as a Service (IaaS), desktop virtualization, security applications, embedded and hardware appliances. Xen enables users to increase server utilization, consolidate server farms, reduce complexity, and decrease total cost of ownership.

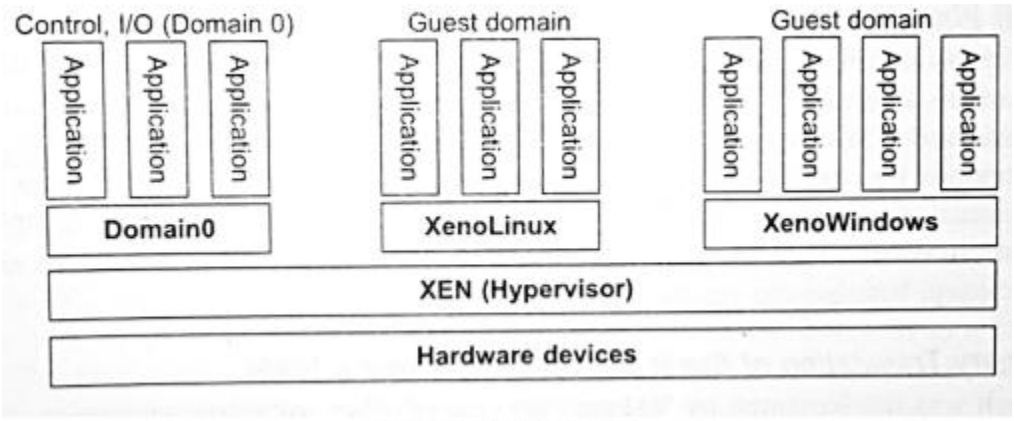
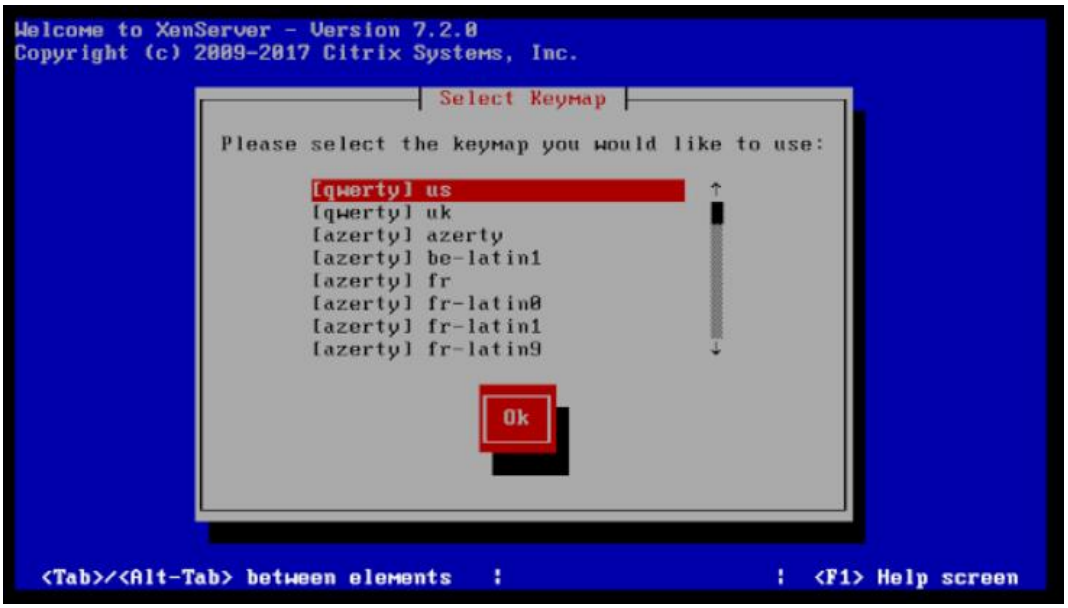


Fig. Xen Architecture

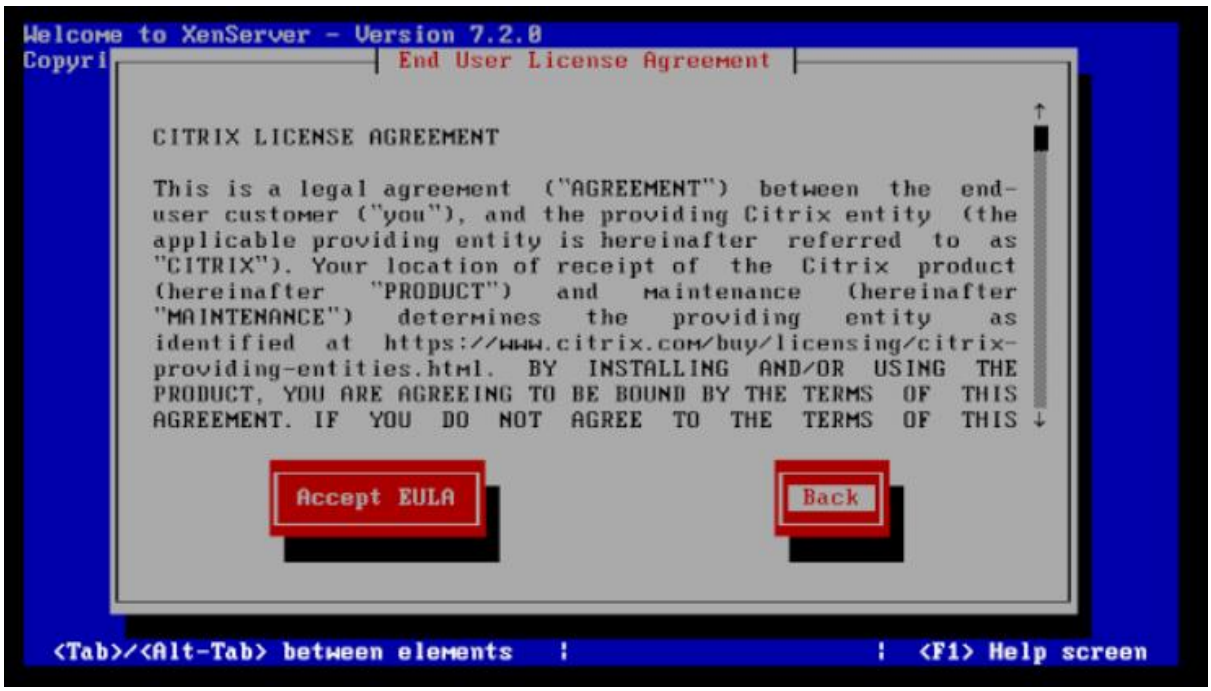
Installation of Xen hyperviser:

- Make bootable pendrive to install Xen hyperviser.
- Select keyboard layout



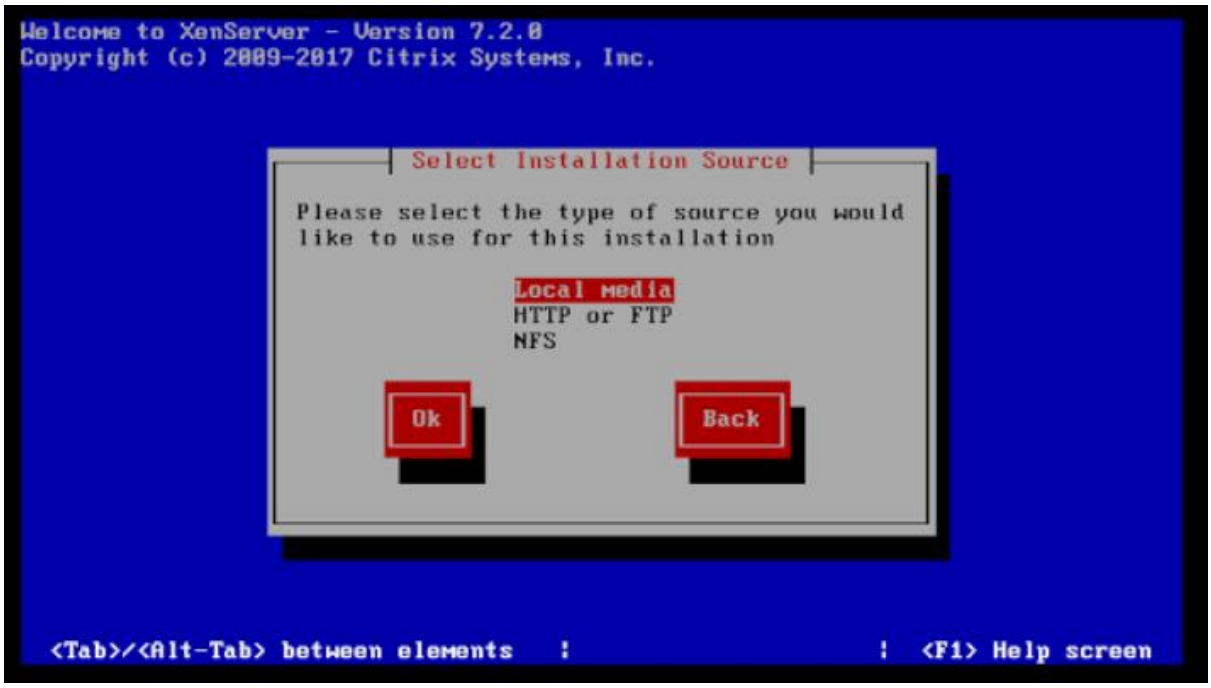
- Simple welcome screen for XenServer Setup. Click OK

- Here it is End User License Agreement (between User & Provider) so read it and Click Accept EULA



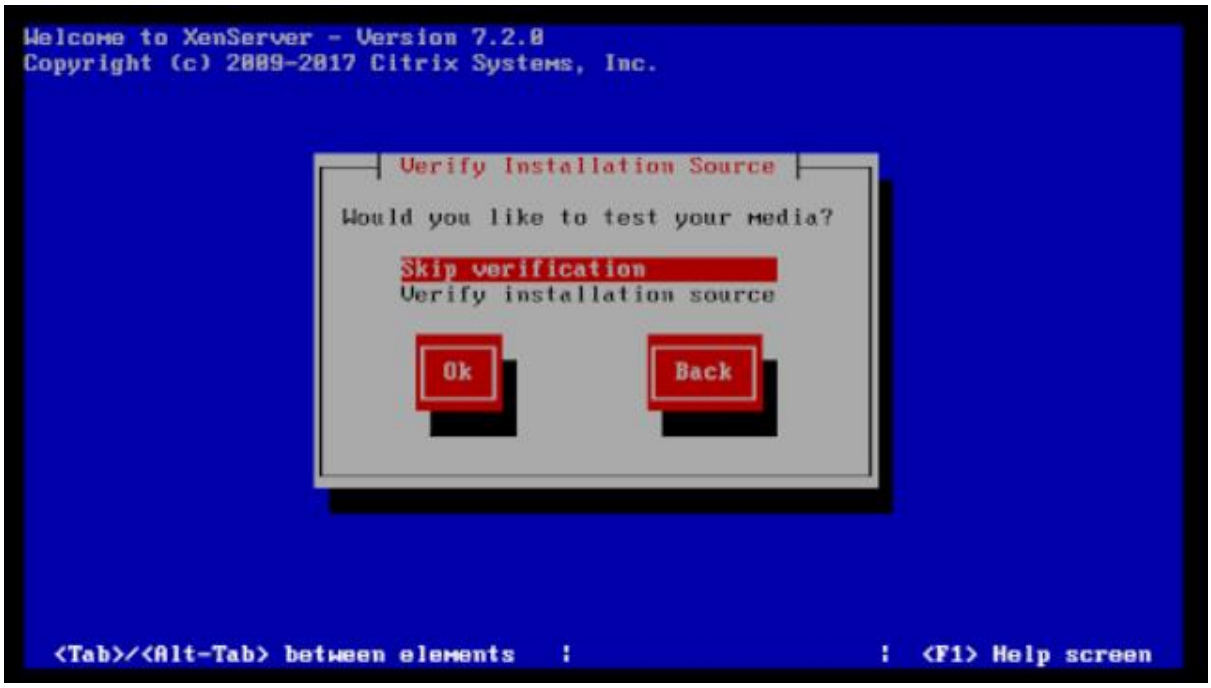
- We have to assign storage space for virtual machine. For our scenario 100 GB assigned of VMware virtual storage. Click OK

- You have to select Media or Source from which system will use for installations, here I select Local Media. Click OK.



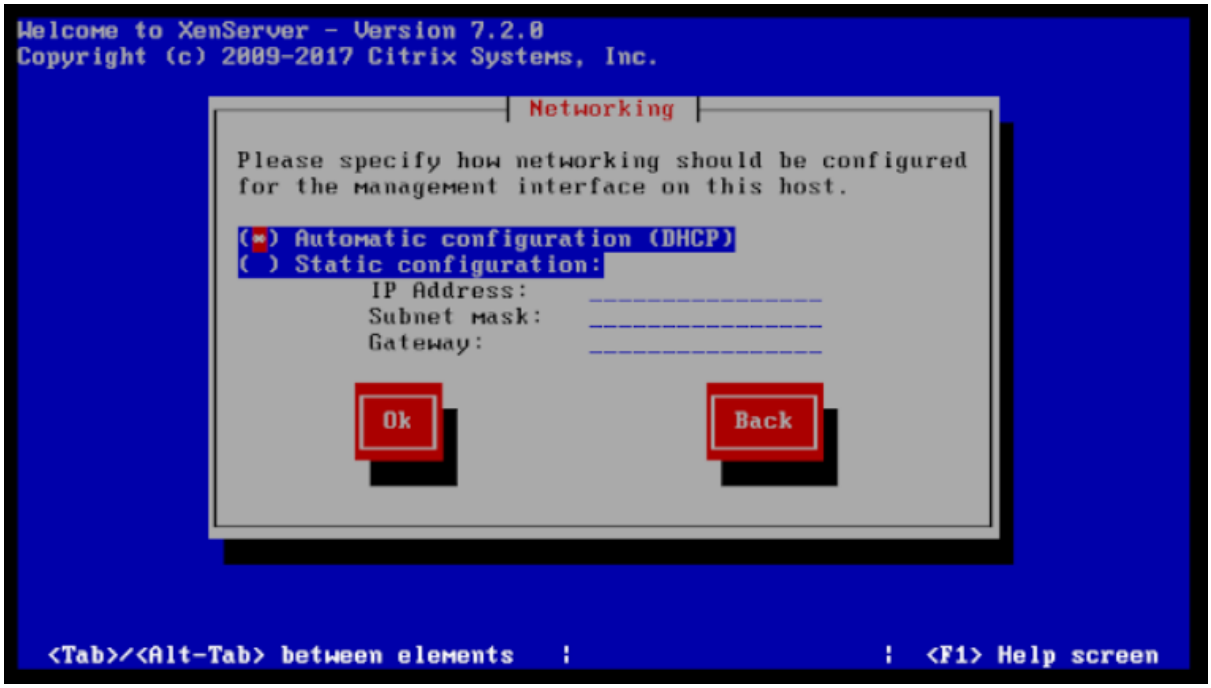
- One more option you have to select for supplemental package. Here for our configuration there is no requirements for supplemental package . So Click NO.

- This is for testing purpose so select Skip Verification. Click OK.

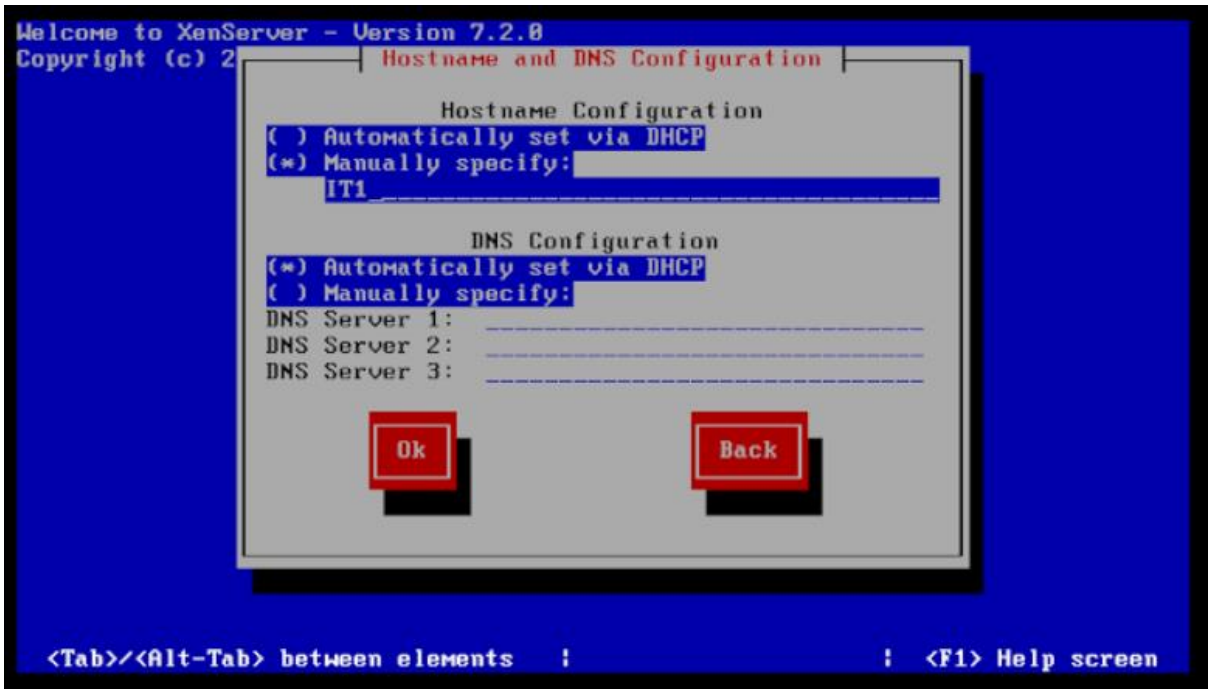


- You have to set root password and confirm it. This password is use later on for various task related to server for instance root password required for Server Shut Down.

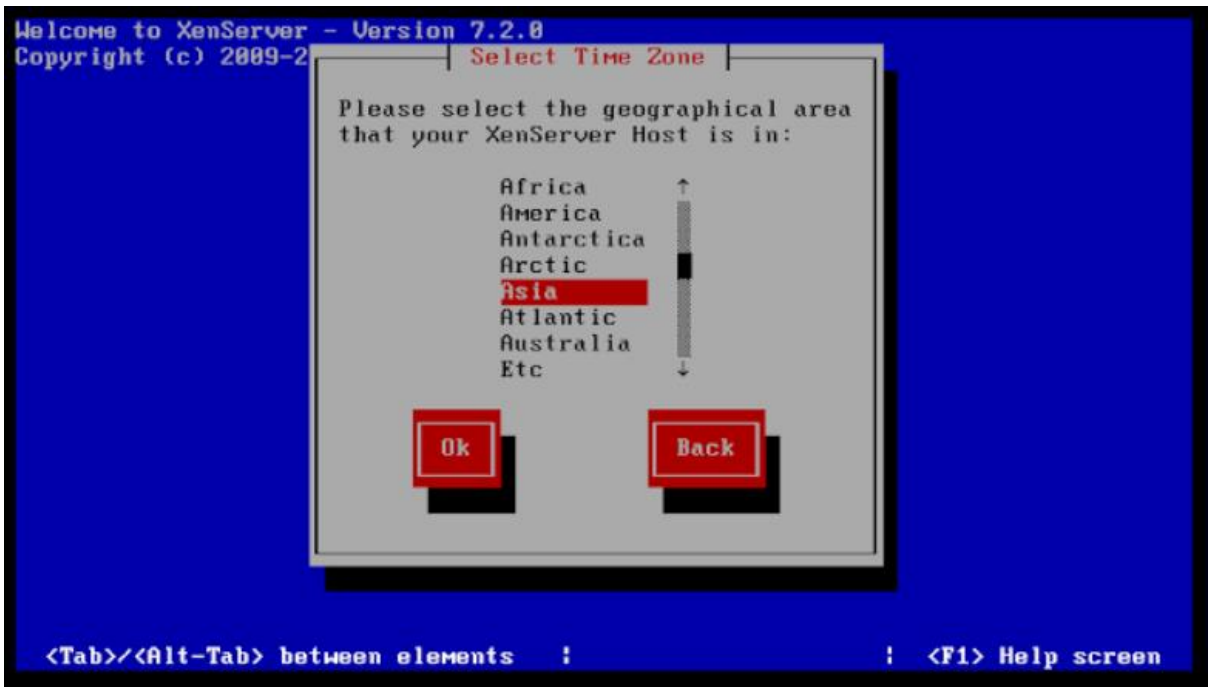
- There are two ways for networking configuration Static & Dynamic . Using static way you have to assign IP address , subnet mask and gateway but on the other hand in automatic configuration mode all the related addresses will take automatically using DHCP. Here select Automatic configuration(DHCP) Click OK.



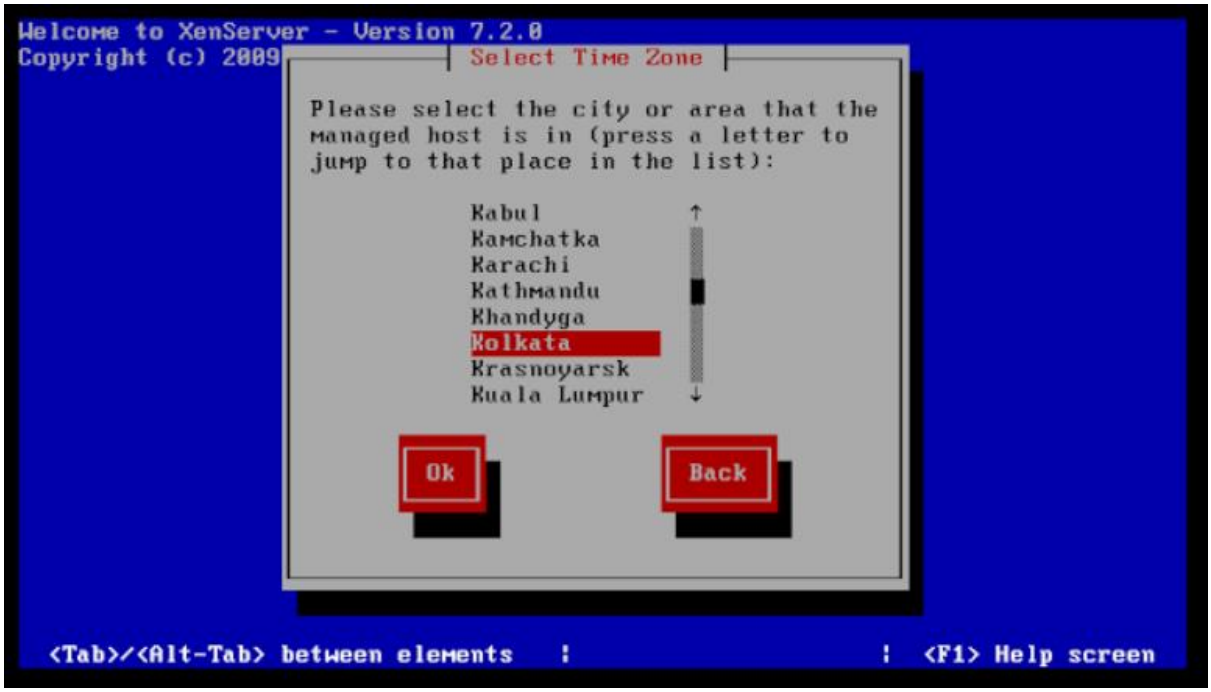
- In DNS configuration select Automatically set via DHCP and Clik OK.



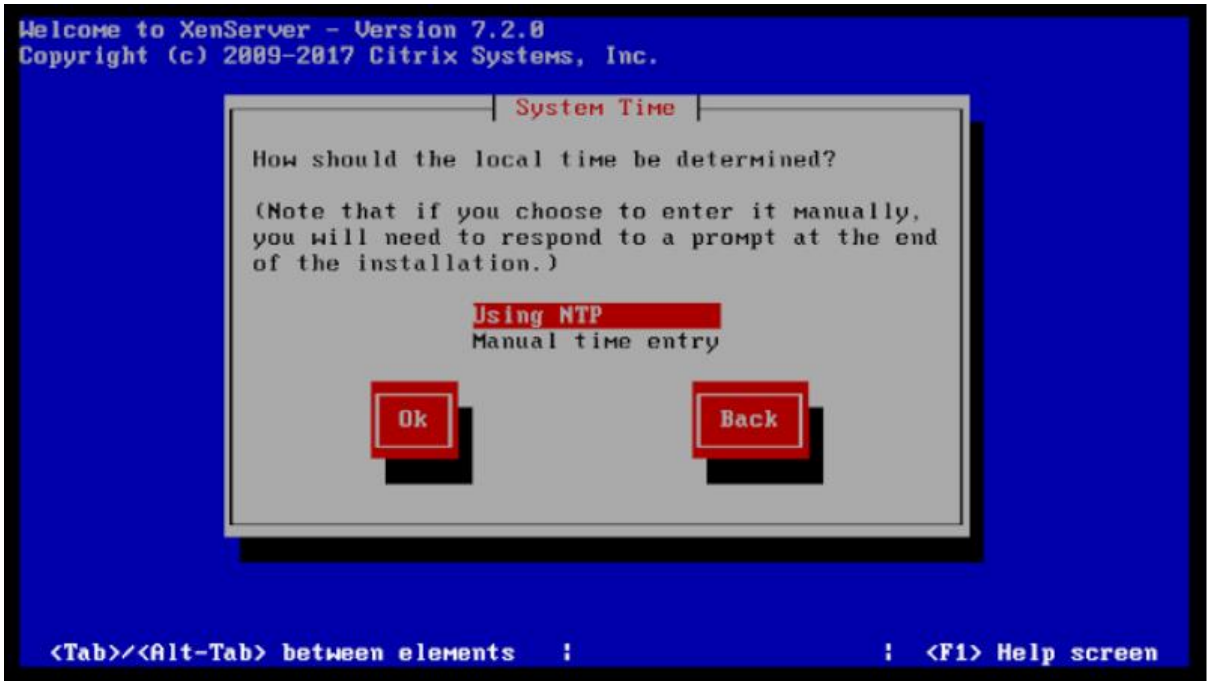
- Select time zone according to geographical location of XenServer. Select Asia and click OK.



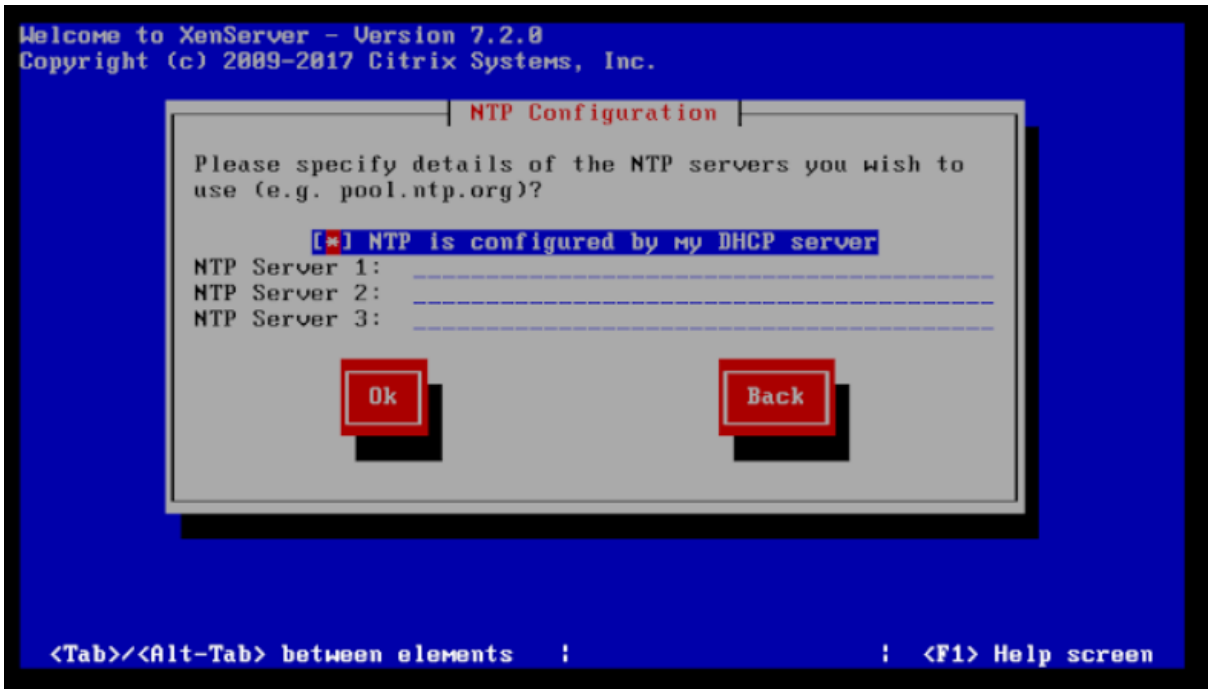
- Select time zone according to city so select Kolkata click OK.



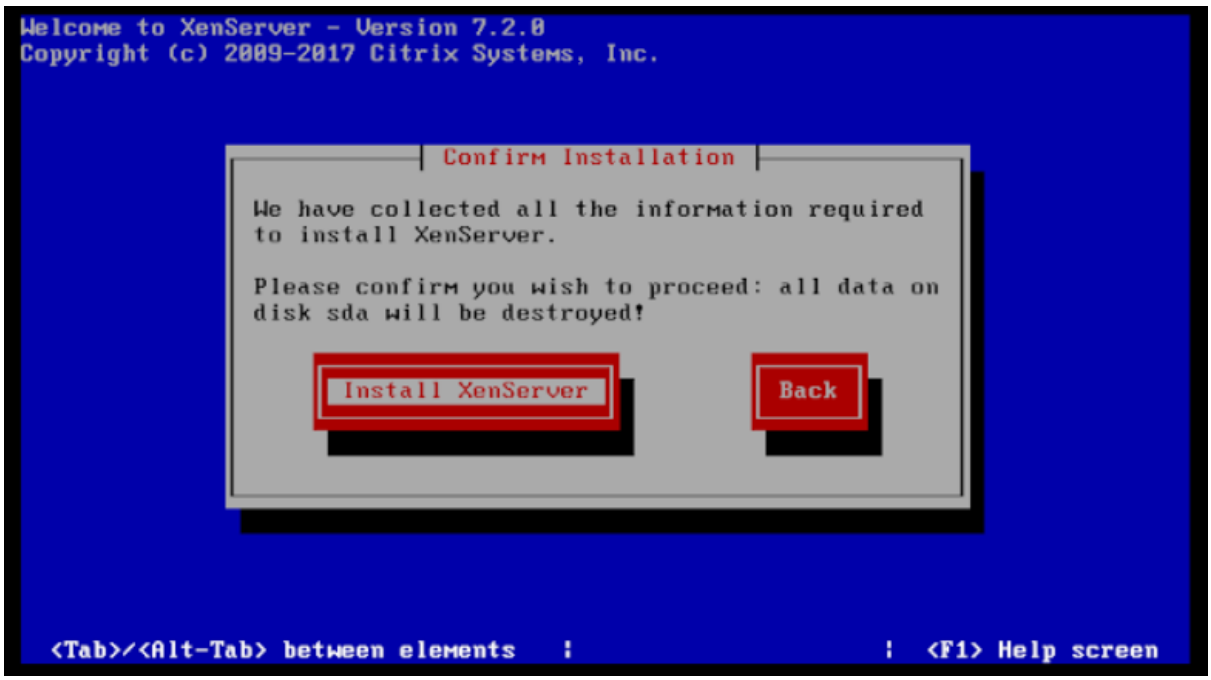
- Select Network time here I chose Using NTP (Network Time Protocol) which help to synchronise time according to network so select Using NTP click OK.



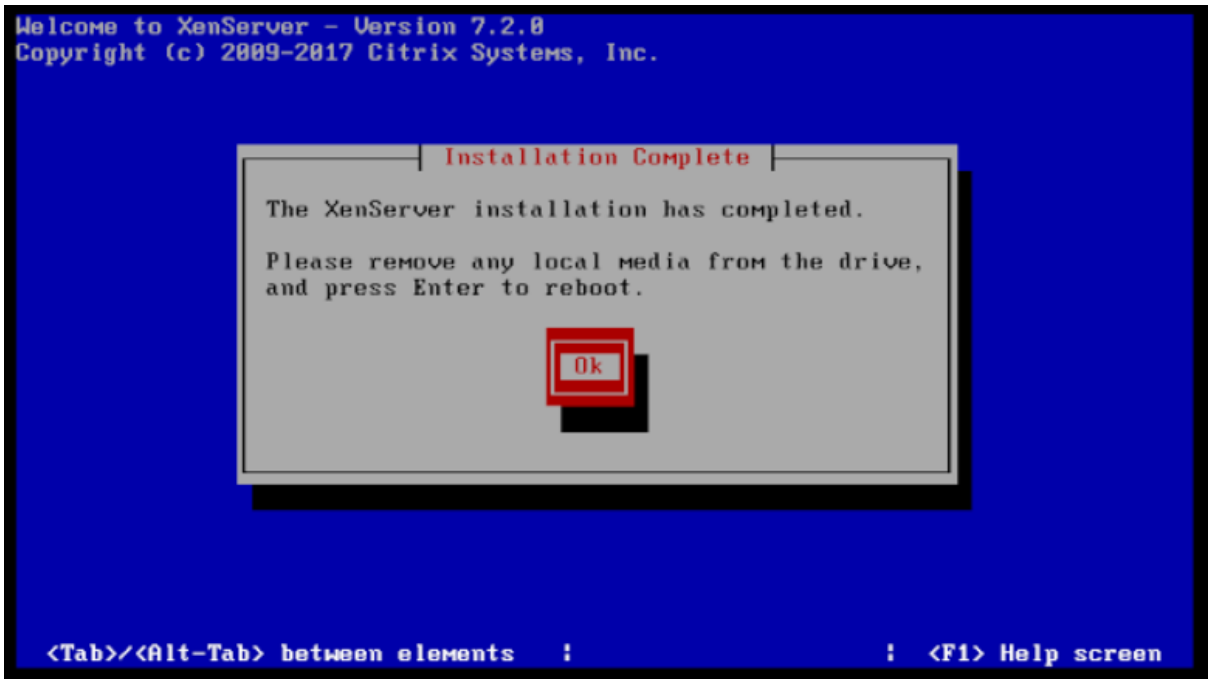
- Select NTP is configured by my DHCP server click OK.



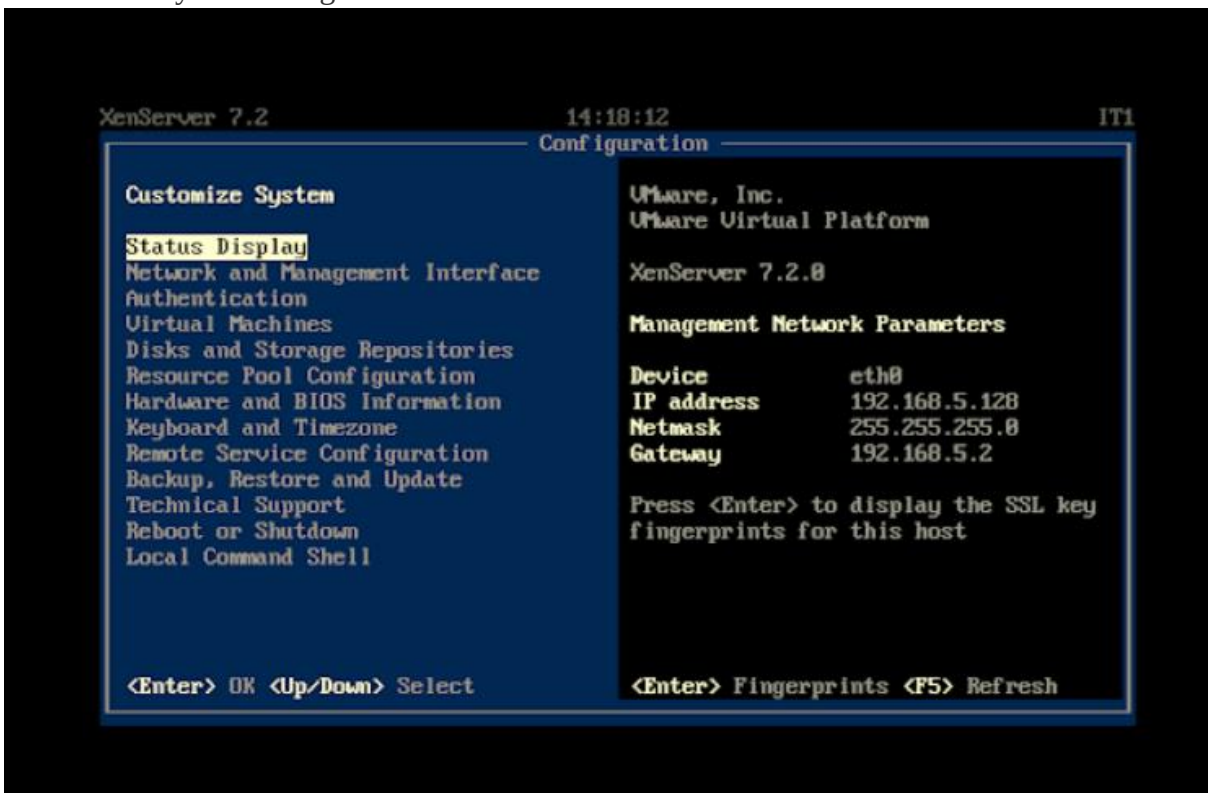
- You have to give final confirmation after our previous configuration. Select Install XenServer and click OK.



- Finally Installation Complete , click OK.



- Finally You will get this window of XenServer.



Output:

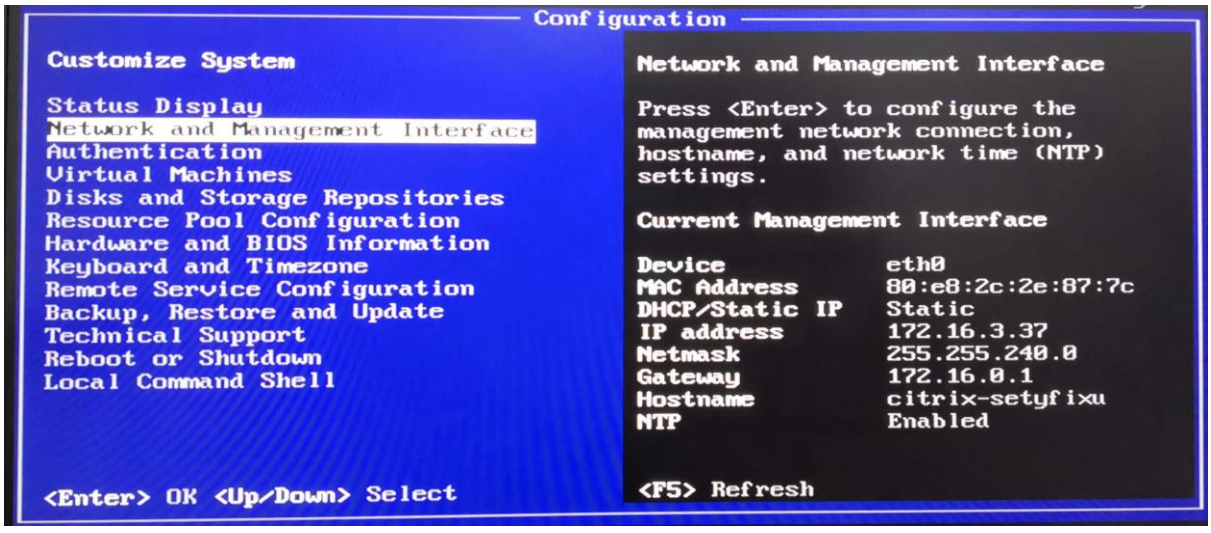


Figure 1 Network configuration of xen

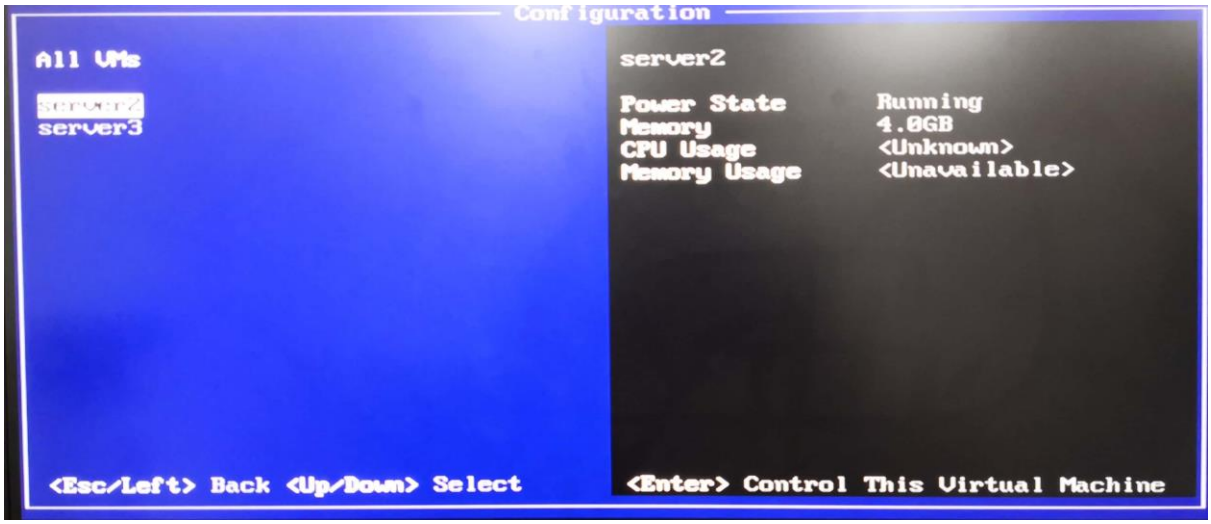


Figure 2 Created Virtual machines

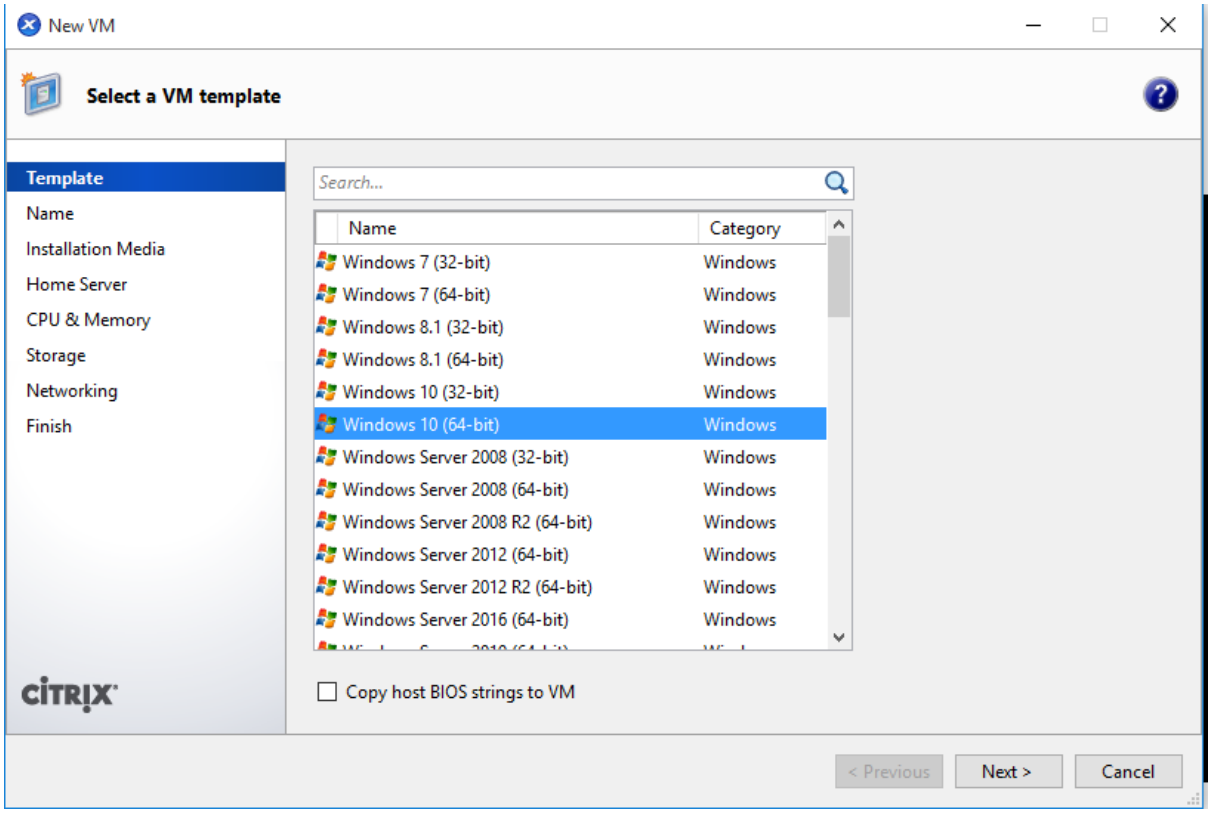


Figure 3 Create the windows virtual instance

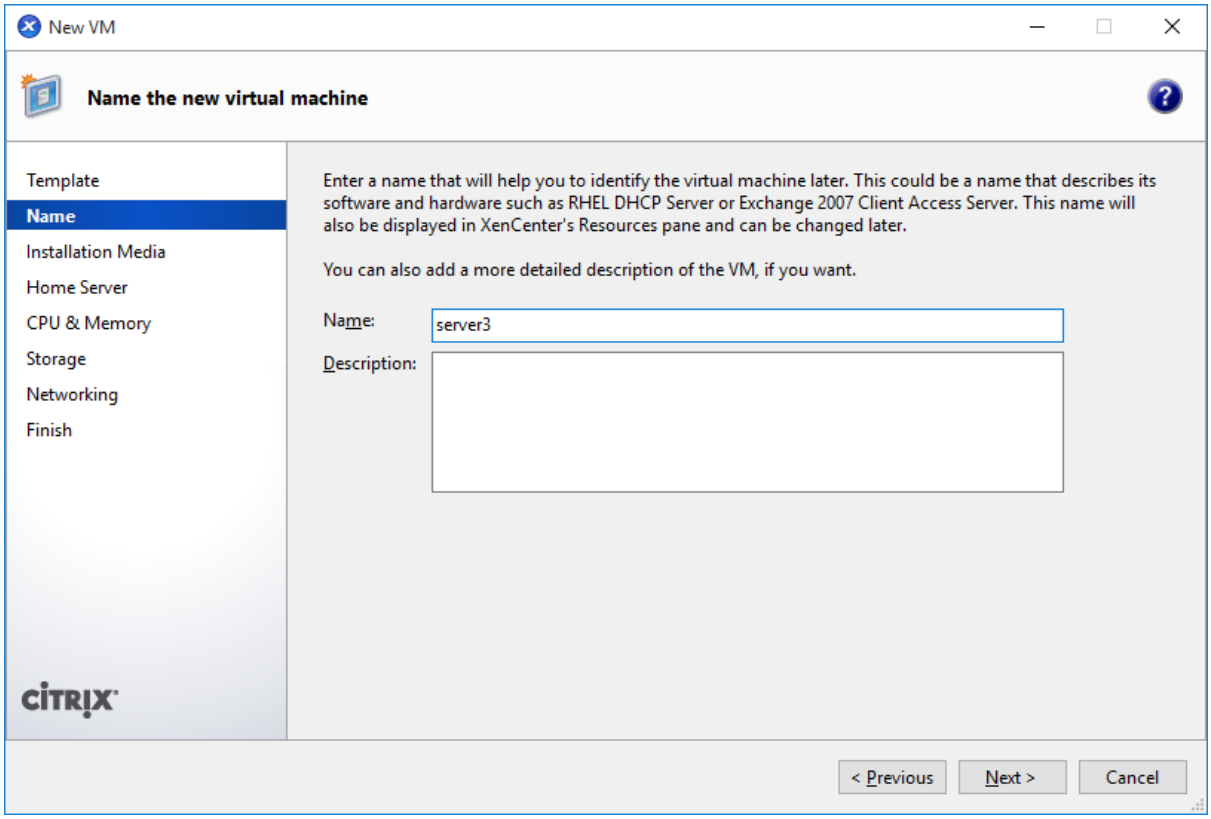


Figure 4 Give name to vitual instance

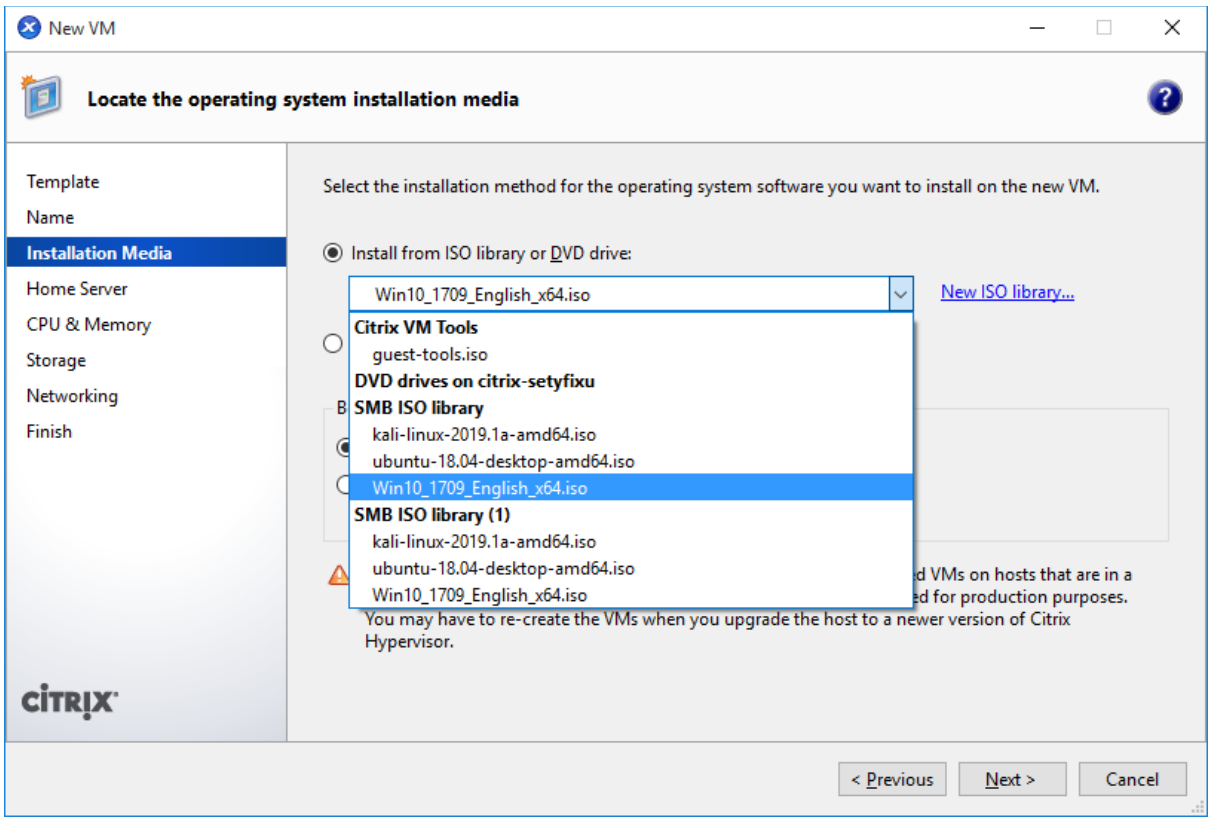


Figure 5 Add .iso file of windows

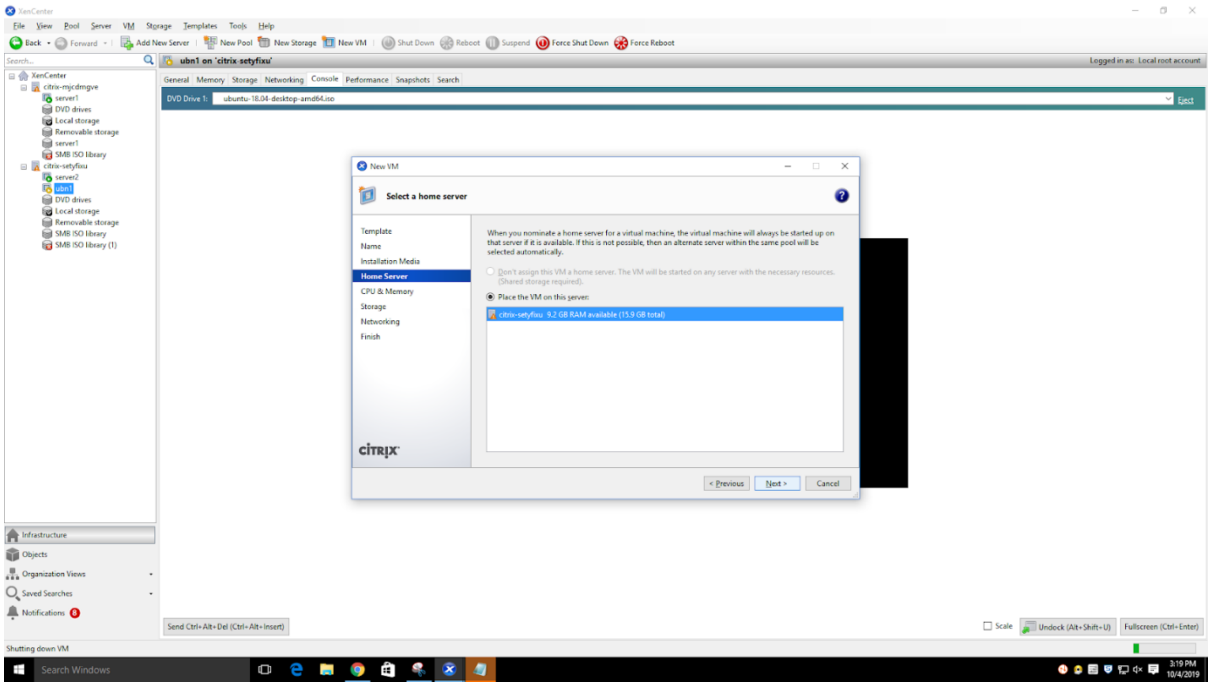


Figure 6 Add server

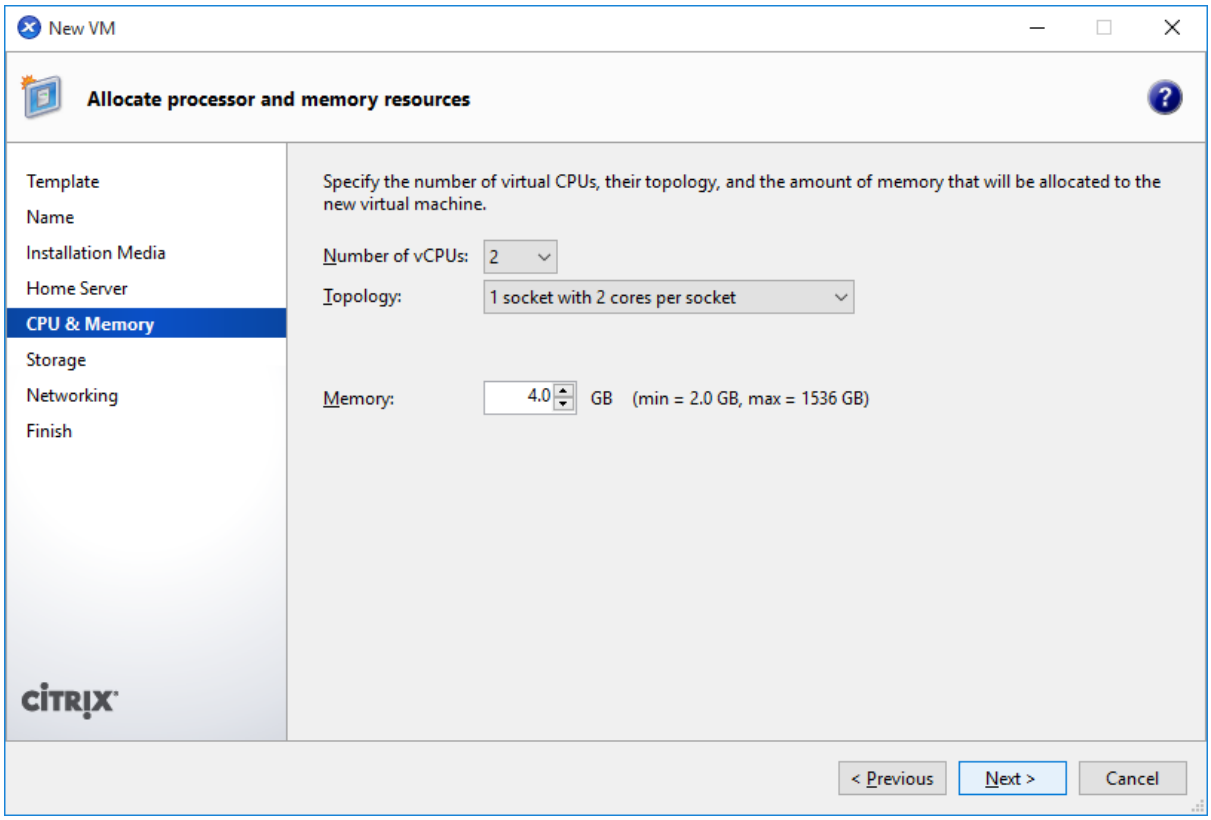


Figure 7 Add memory for windows

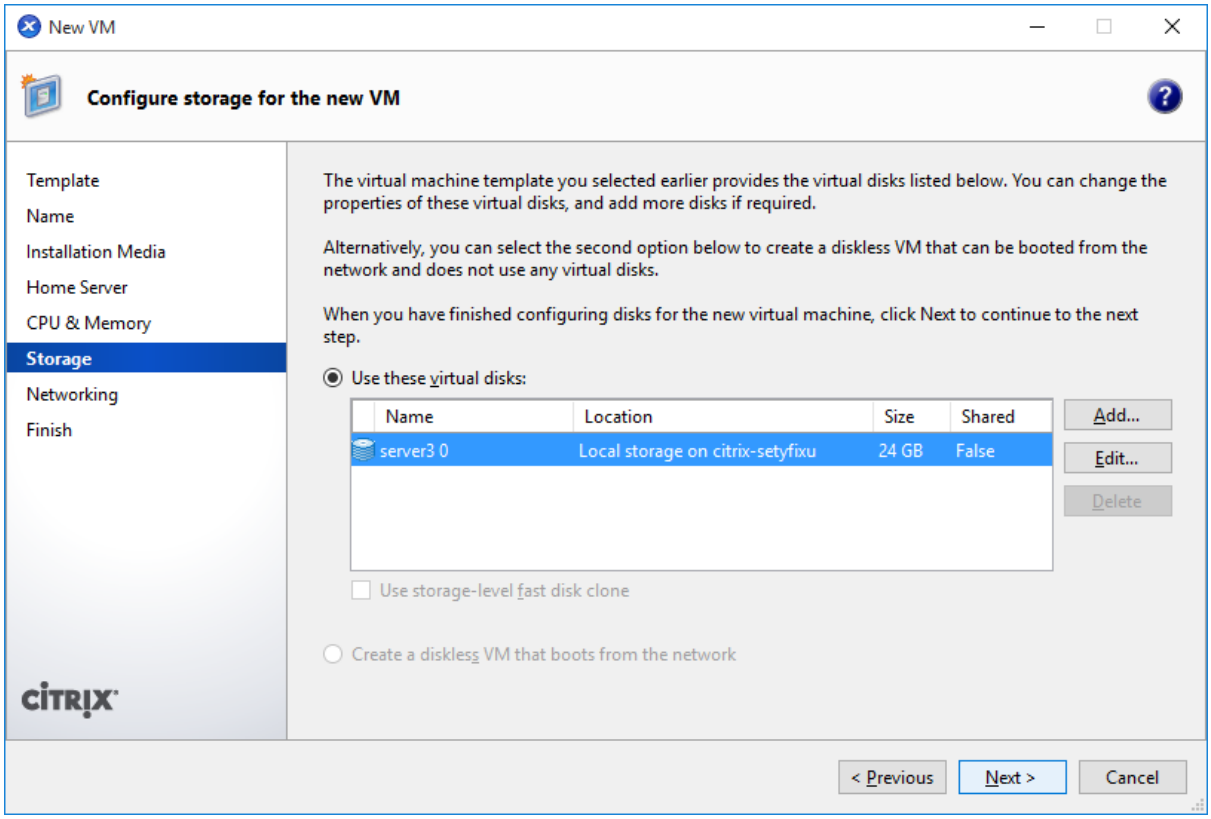


Figure 8 Add storage server

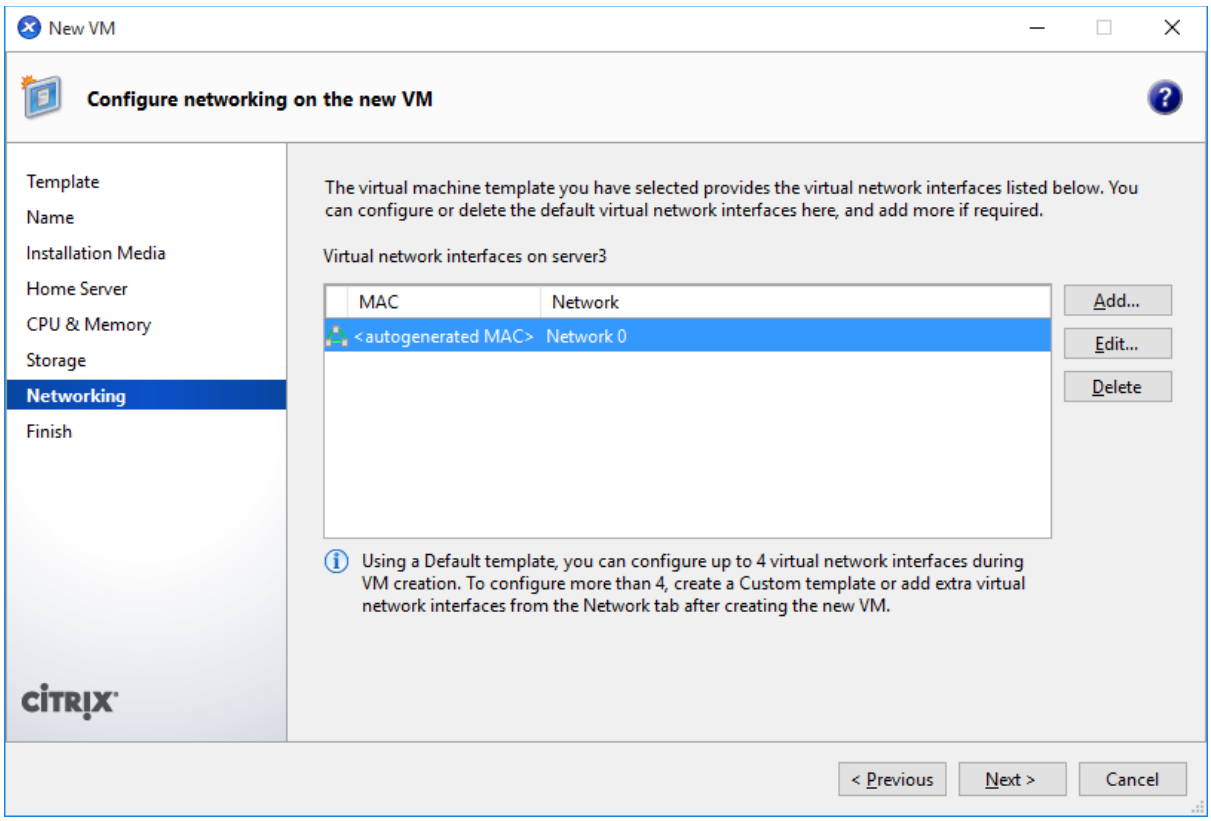


Figure 9 Auto-generated network

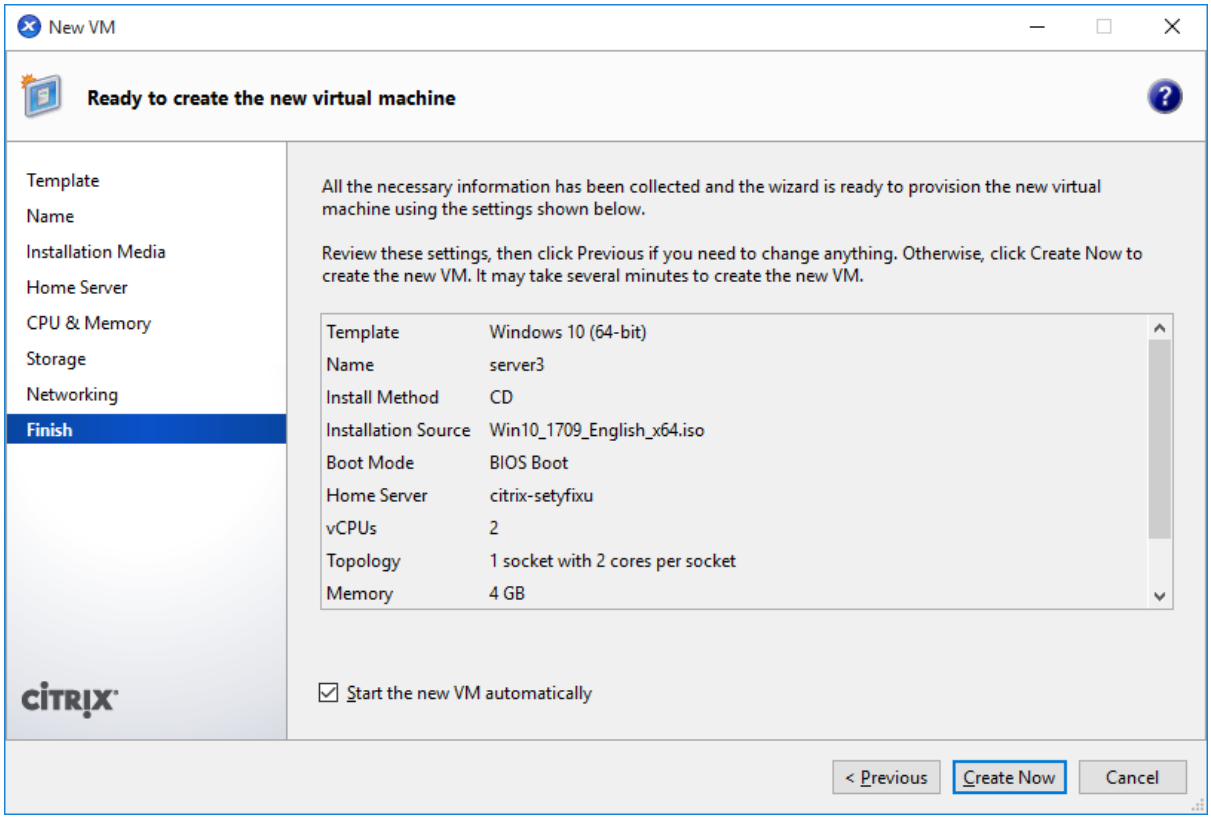


Figure 10 Final step which shows all configuration

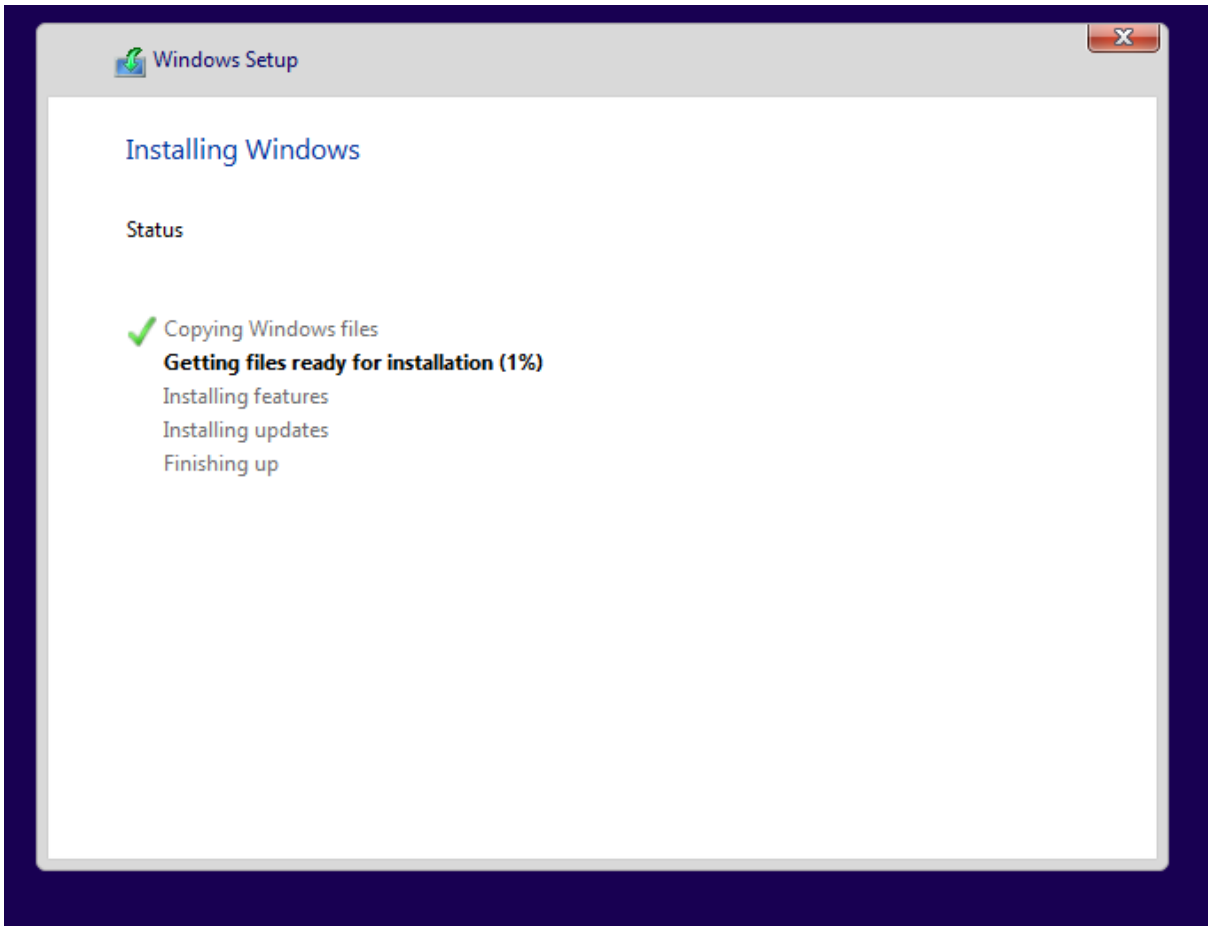


Figure 11 Install windows on virtual machine

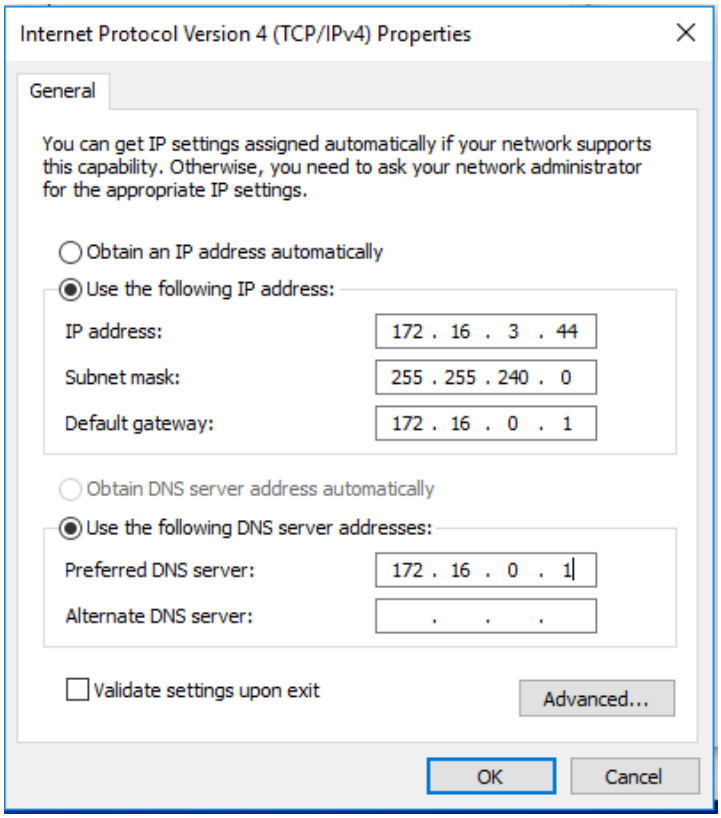


Figure 12 Change IP address

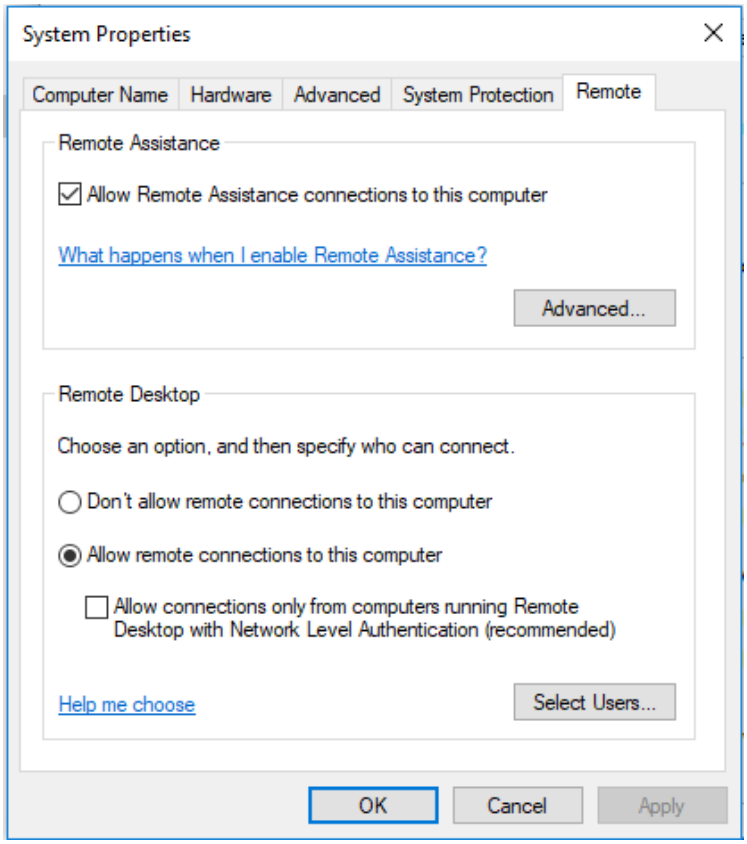


Figure 13 Allow remote connection

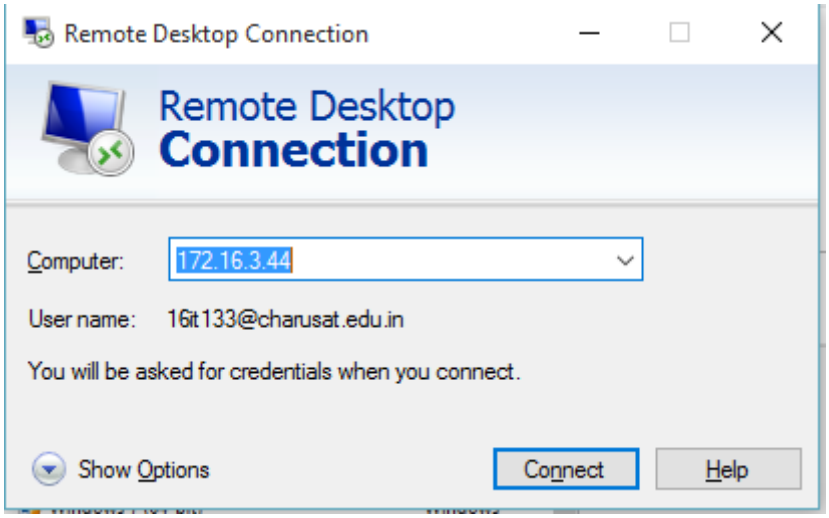


Figure 14 Take remote desktop connection and enter credential

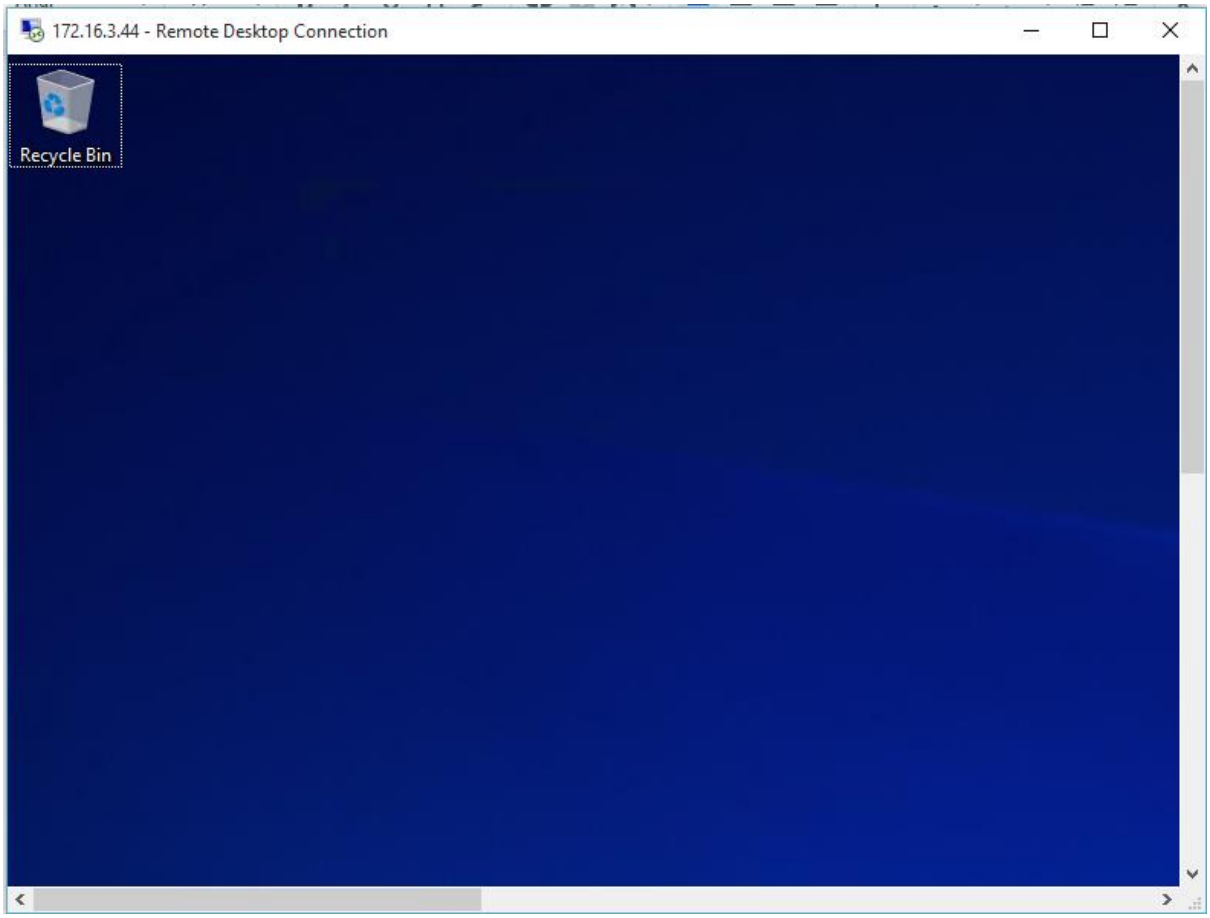


Figure 15 Remote connection of VM

Conclusion:

We have successfully installed Xen Hyperviser and install windows virtually. Also access it through remote desktop connection. Also explore different options of Citrix Hyperviser.