Practical No : 05

Practical Title: Setup your own cloud for Software as a Service (SaaS) over the existing LAN in your laboratory. In this assignment you have to write your own code for cloud controller using open-source technologies to implement with HDFS. Implement the basic operations may be like to divide the file in segments/blocks and upload/ download file on/from cloud in encrypted form.

Objectives:

- To set your own cloud for SaaS over existing LAN
- To implement the basic operations may be like to divide the file in segments/blocks

Hardware Requirements :

- Pentium IV with latest configuration

Software Requirements :

- Ubuntu 20.04, VMwareESXi cloud

Theory:

Here we are installing VMwareESXi cloud

- Host/NodeESXi installation:-
- **ESXiHardwareRequirements:-**

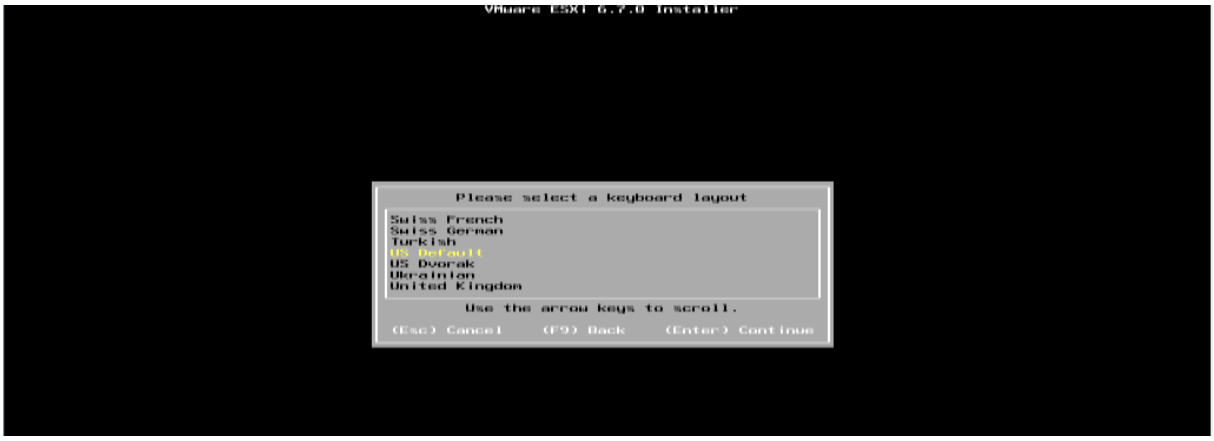
- ESXi6.7requiresahostmachinewithatleasttwoCPUcores.
- ESXi6.7supports64-bitx86processors
- ESXi6.7requirestheNX/XDbit to be enabled for the CPU in the BIOS.
- ESXi6.7requiresaminimumof4GBofphysicalRAM.Itisrecommended to provide atleast 8 GB of RAM to run virtual machines in typical productionenvironments.
- Tosupport64-bitvirtualmachines,support for hardware virtualization (IntelVT-xor AMDRVI) mustbeenabledonx64CPUs.
- One or more Gigabit or faster Ethernet controllers. For a list of supportednetwork adapter models.
- SCSI disk oralocal,non-network,RAIDLUN with unpartitioned space for the virtualmachines.

ForSerialATA(SATA), a disk connected through supported SAS controller or supported on board SATA controllers. SATA disks are considered remote not local. These disks are not used as a scratch partition by default be cause they are seen as remote.

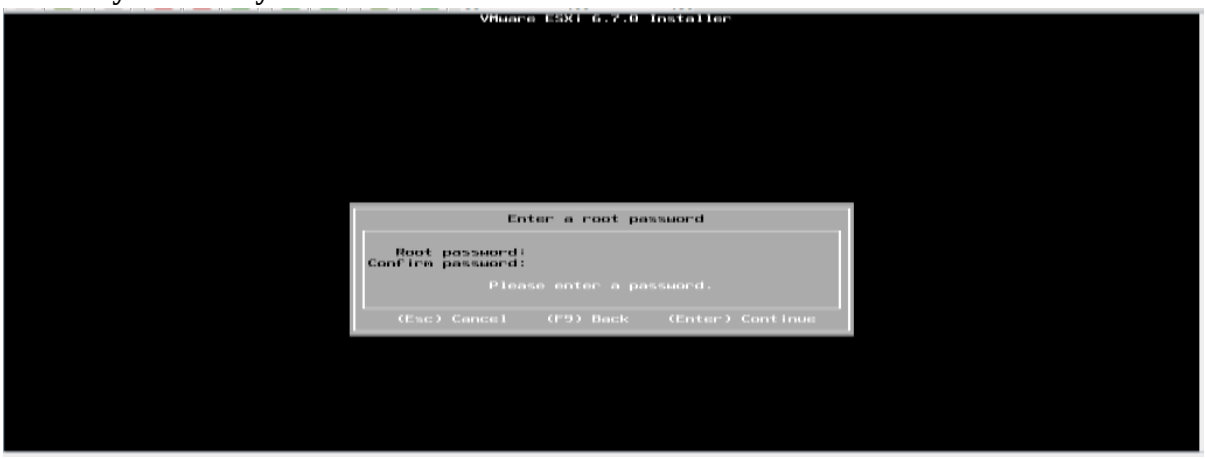
ESXiInstaller:

Accept Agreement:

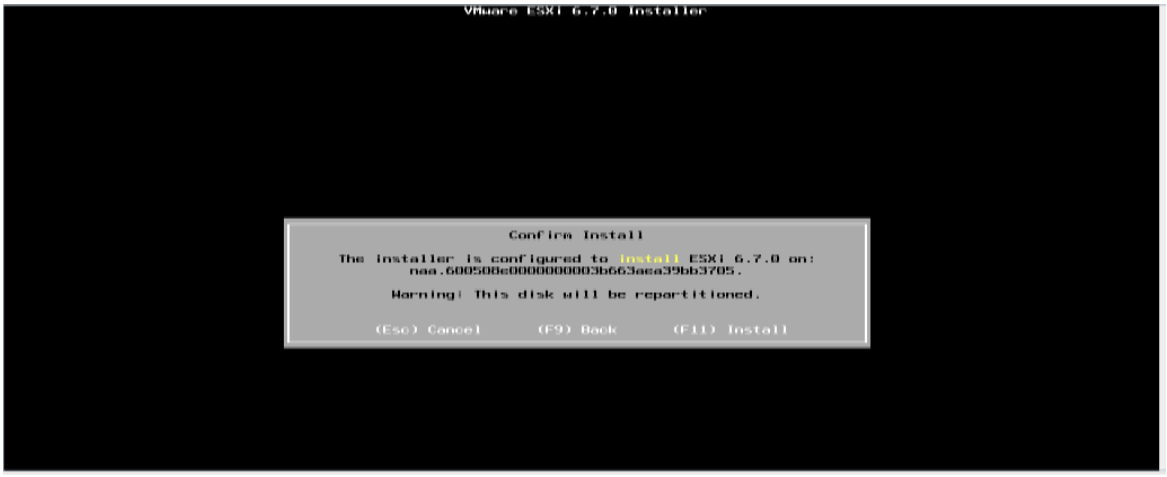
Select storage :



Select Keyboard Layout :

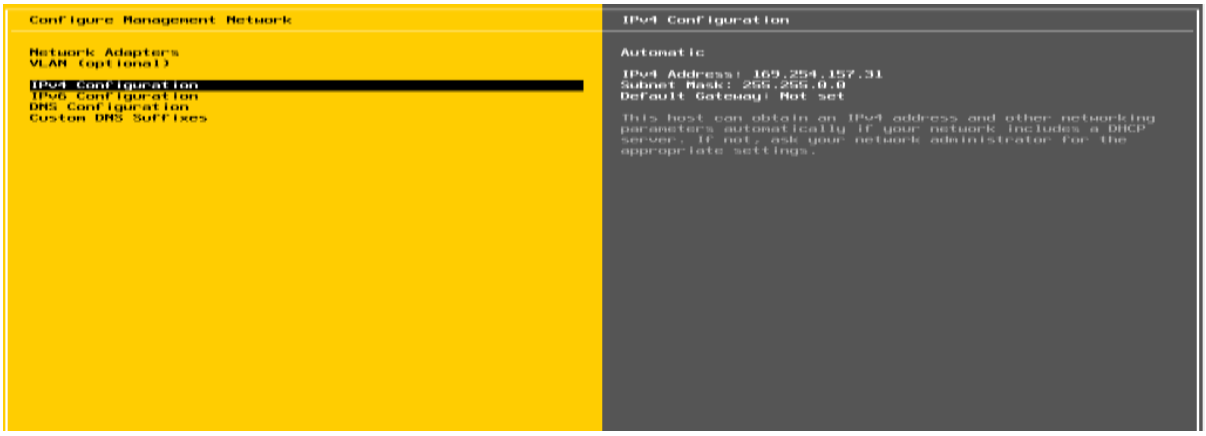


Set NodeESXi Root Password :



Installation complete (Reboot)CLII interface to configuration

CLI Interface to Configuration:

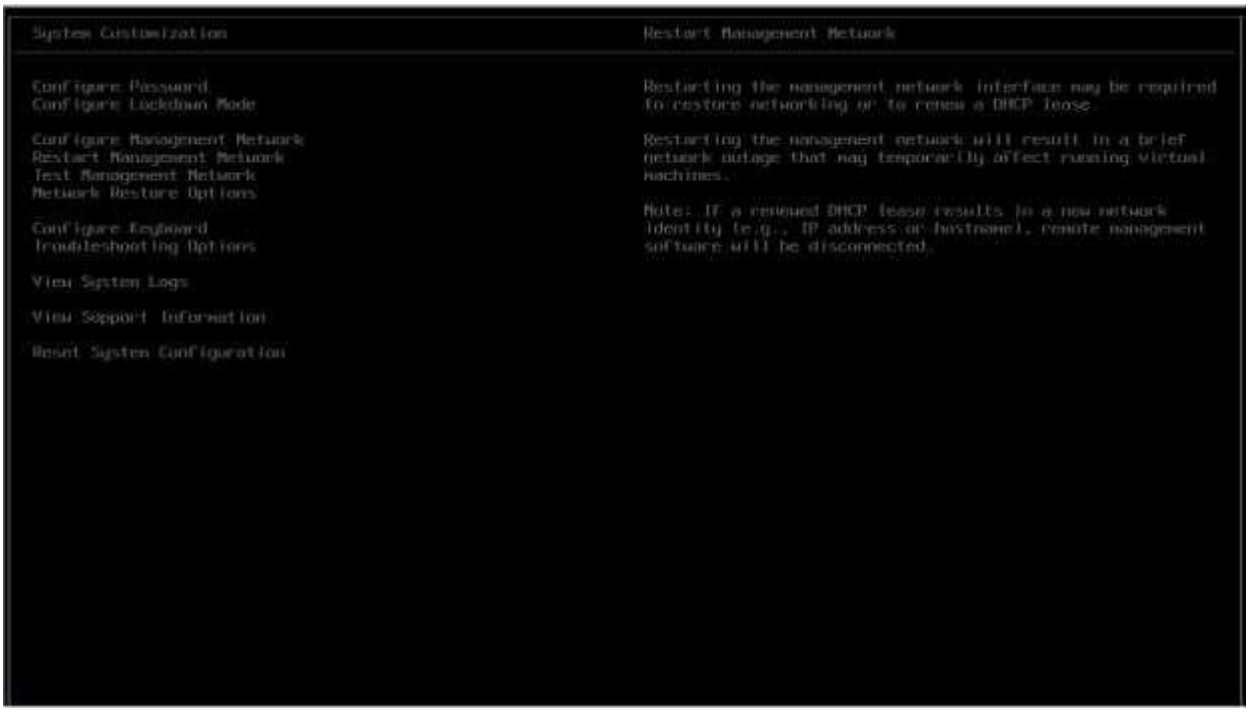


Configure Management Network

Set IPV4

Set DNSeriver :

Restart Management Network

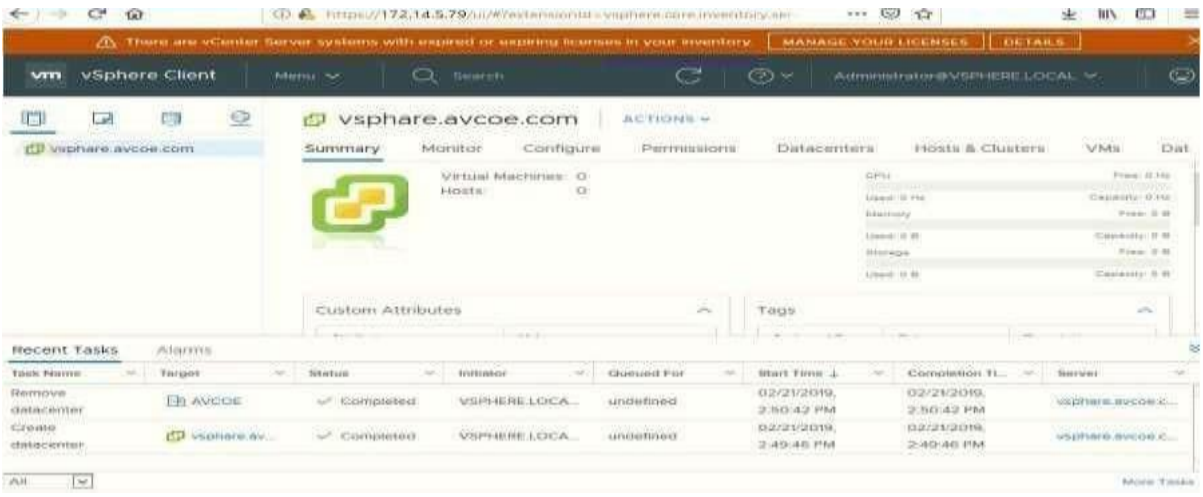


GUIAccess :

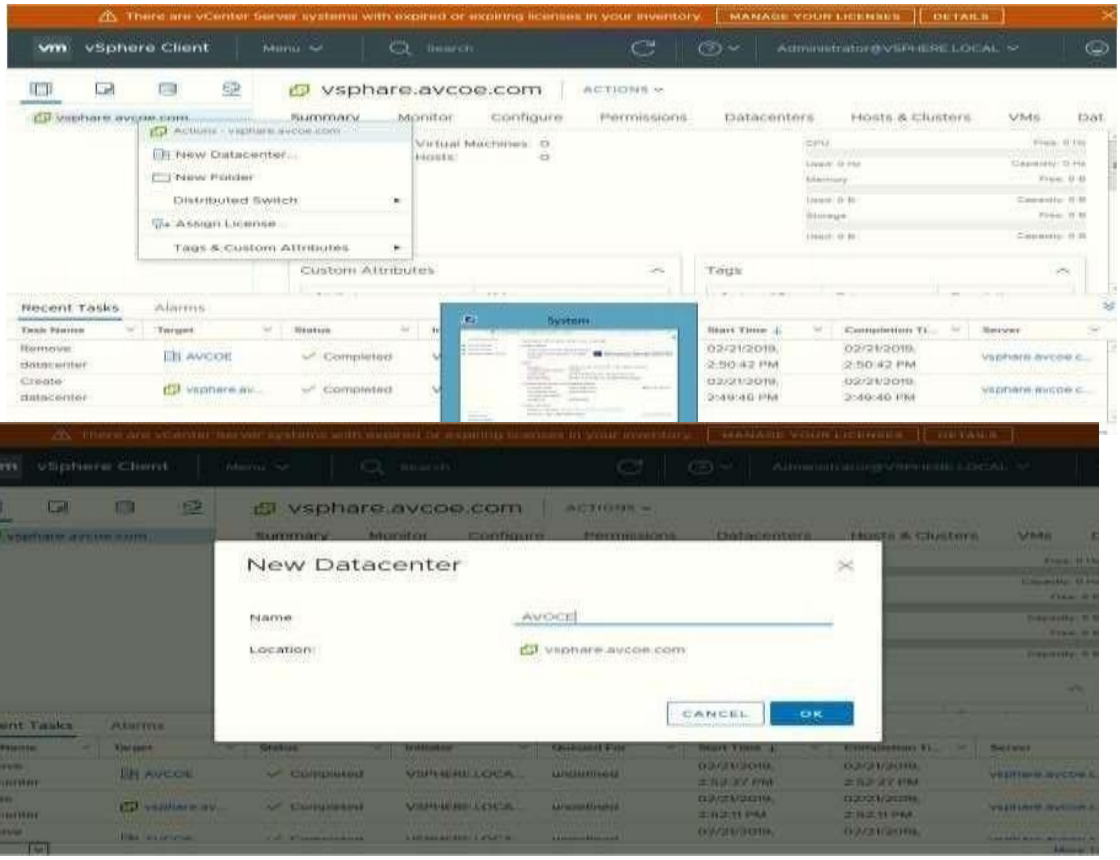
ClusterSetup

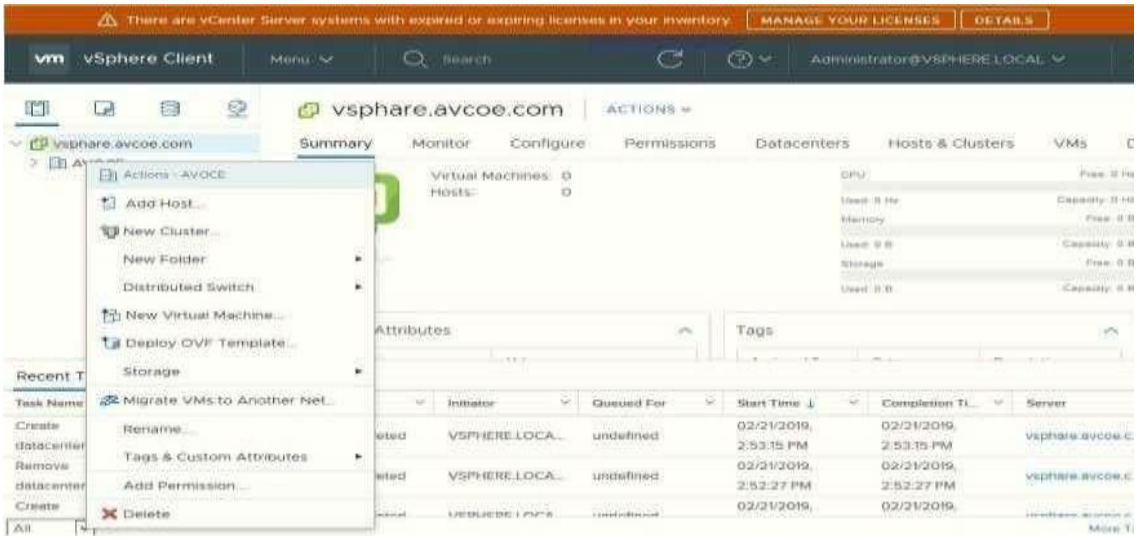
- **CreatingDatacenter**
- **CreatingCluster**
- **Adding Hosts incluster**
- **Resourcesafteraddingcluster.**
- **DRS**
- **Failover**

VCenter Access:



Create Datacenter:

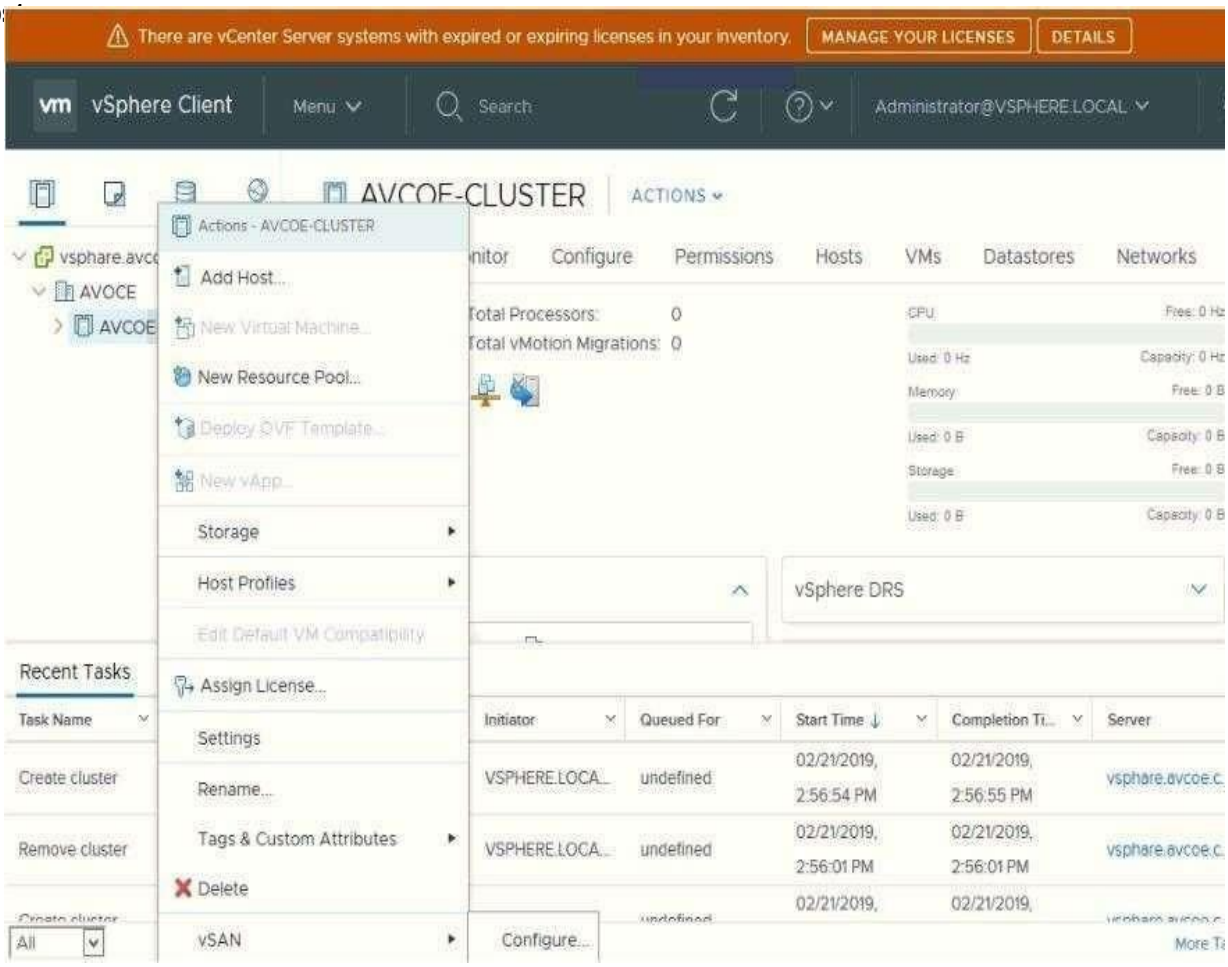




Create cluster :

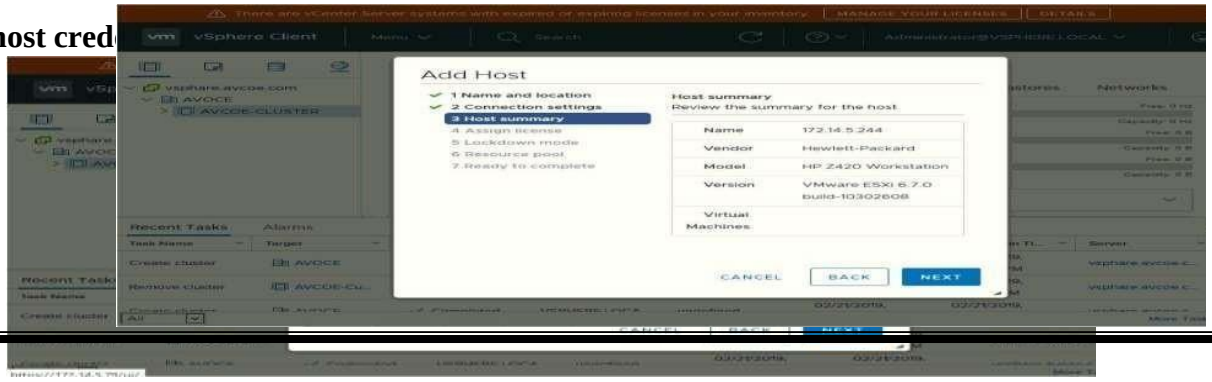
Assign cluster name :

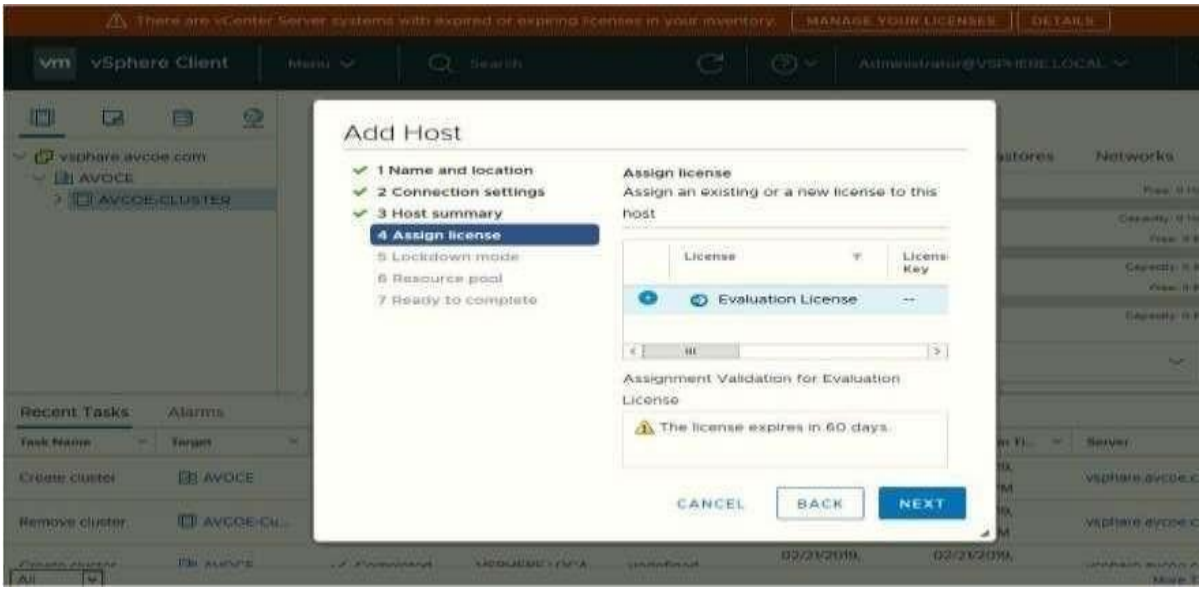
Add ho



Add host IP :

Enter host cred

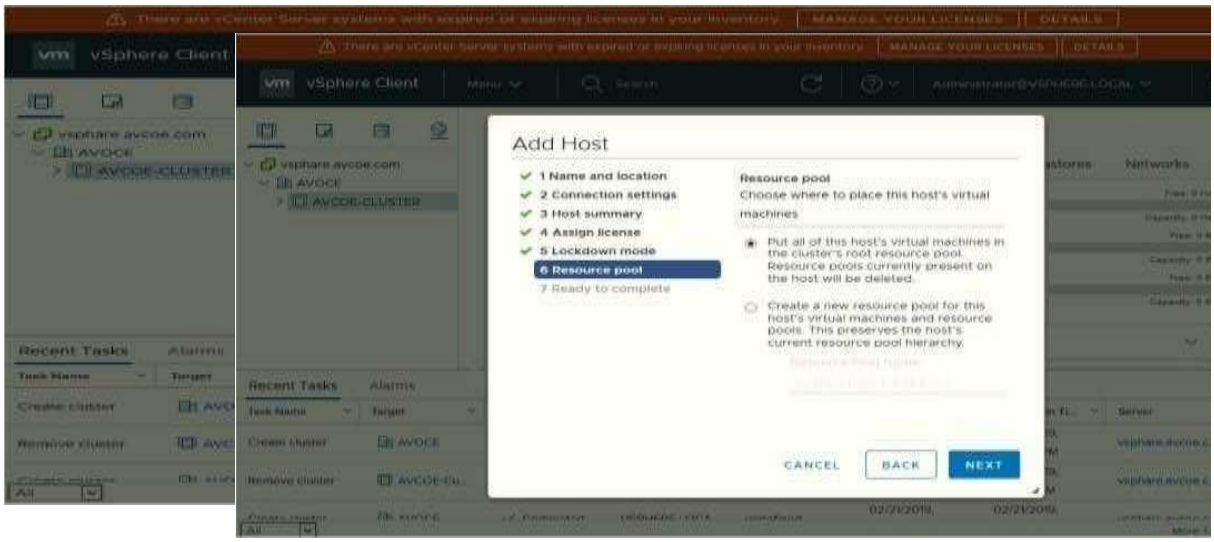




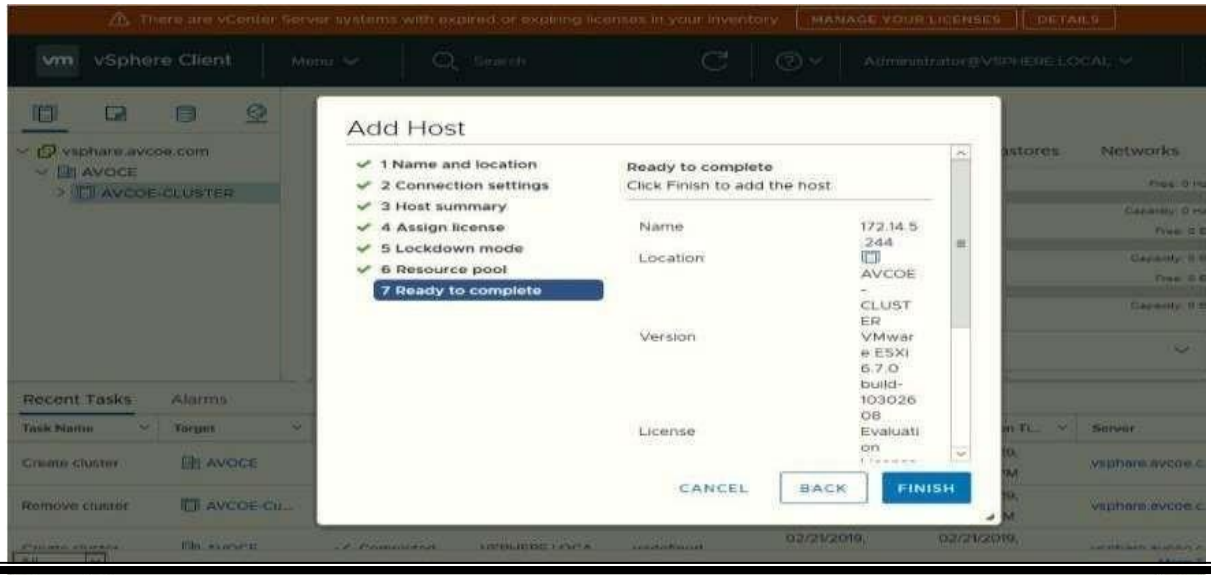
Hot summary :

Lock Down mode:

Add Host In Pool:

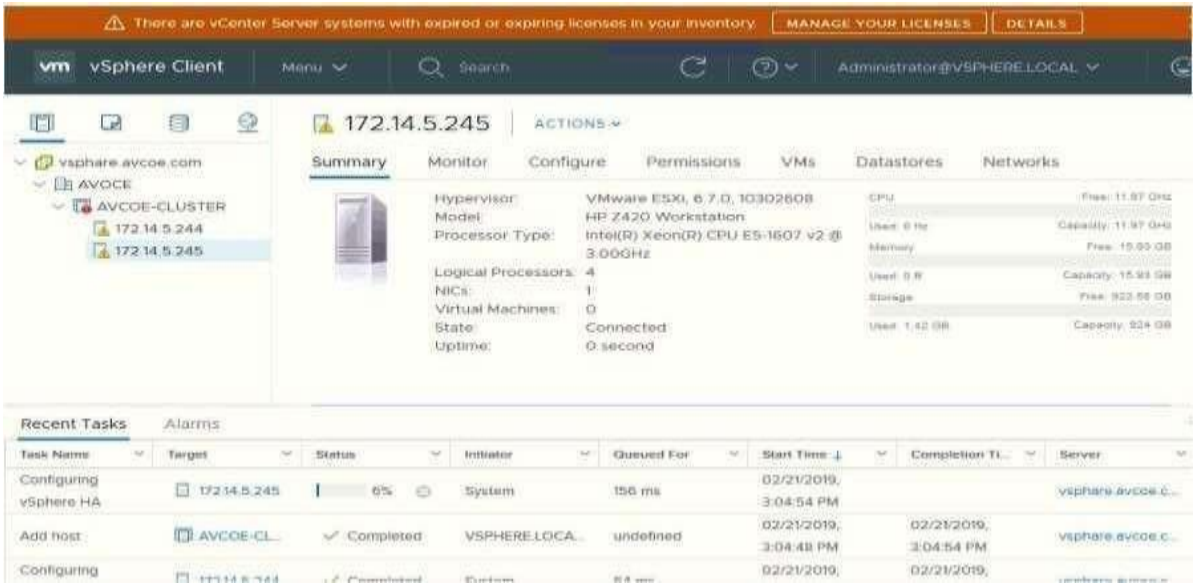


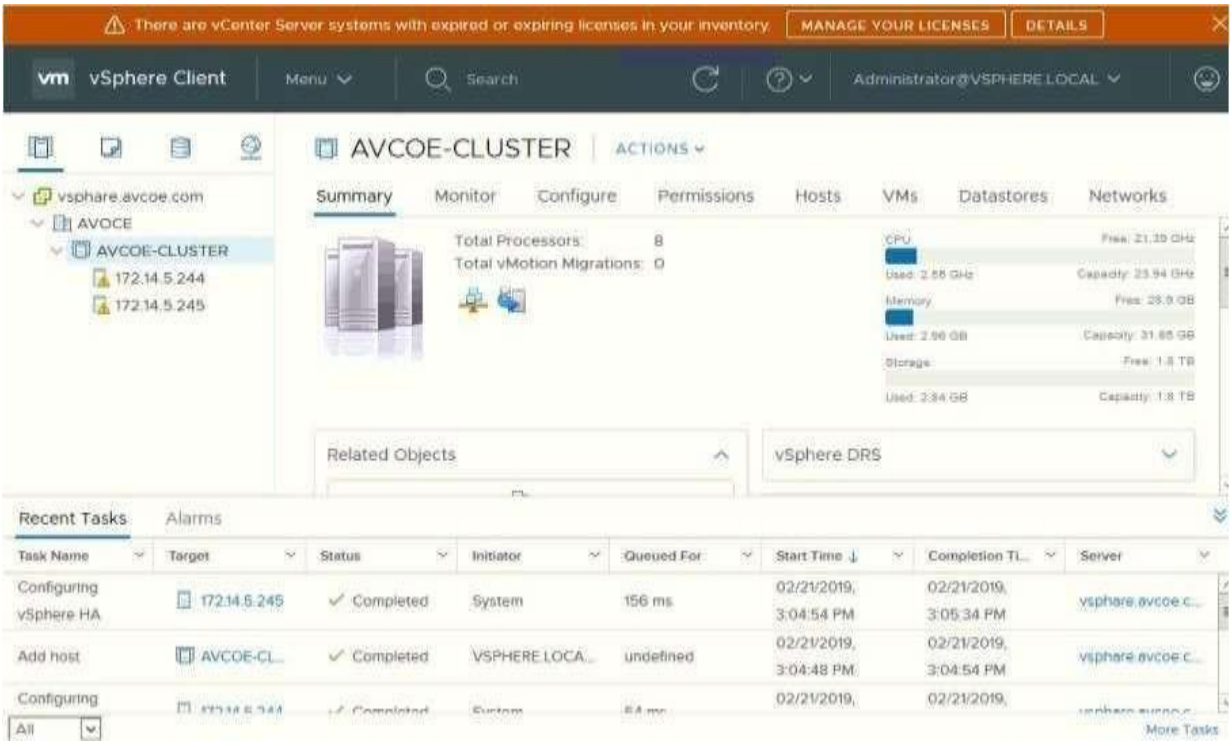
Finish:



Host View and View Config:

Cluster View and Configuration:





Conclusion: Like this we have configure VSphere Private Cloud