

VMware vSphere Training Syllabus

Module 1:- Basic of vSphere & Virtualization

- Introduction to VMware vSphere
- Server Virtualization
- Storage Virtualization
- Network Virtualization

Module 2:- Installing ESXi & Deploying vCenter Server

- What is vSphere, ESXi & vCenter
- vSphere Hypervisor(Free Version)
- Support & Upgrade of ESXi Free Version
- Downloading, Installing & Configuring ESXi7
- How to Download ESXi & vCenter 60 days Trial from VMware Website
- ESXi free version Support & Upgrade
- Installing ESXi & DNS | Deploying VCSA-Stage1
- Configuring VCSA-Stage2

Module 3:- Configuring vCenter

- How to configure vCenter
- Creating Datacenter
- Add Host
- Create Cluster & Folders
- ESXi Maintenance Mode

Module 4:- Licensing/Pricing of vSphere & vCenter

- vSphere & vCenter Licensing
- Assigning License to ESXi & vCenter
- vSphere & vCenter Pricing
- vSphere kits Licensing & Pricing

Module 5:- VM Creation & Modification

- Create VM with Hot Add enabled
- Methods of mounting ISO image to boot the VM
- VM tools Installation
- Hot Add of RAM, CPU & HDD
- Hot Extend of HDD
- Register/Unregister VM

Module 6:- Basics of Cloud Computing

- Cloud Computing- IaaS, SaaS, PaaS
- How Server is Created in AWS Cloud
- Cloud is backbone of Virtualization

Module 7:- Templates, Cloning, Snapshot & Content Library

- **Exporting & Deploying OVF Template**
- **Converting VM to Template**
- **Creating Content Library**
- **Adding ISO images and Templates in Content Library**
- **VM files extension**
- **Cloning Options**
- **Guest OS Customization**
- **Suspended State of VM**
- **Difference between Backup & Snapshot**
- **Creating, Managing & Deleting Snapshot**

Module 8:- vSphere Security & Host Profile

- **Basics of vSphere Security**
- **Adding AD Domain to SSO**
- **Assigning permission to SSO user and AD user**
- **Creating Roles**
- **Creating and Applying Host Profiles**
- **Reset ESXi root password using Host profile**
- **Exporting & Importing Host Profile**

Module 9:- vSphere Networking

- vSphere Virtual Networking Terminologies
- Discussion on Standard Switch
- Virtual Machine Port Group & VMkernel Network Adapter
- Creating Virtual Machine Port Group, VMkernel Network Adapter & Standard Switch
- Adding/Removing vmnic on vSwitch
- NIC Teaming & Active/Passive Failover testing
- vSphere Advance Networking Scenarios
- VLAN Tagging
- Trunk Ports
- Seperating vMotion and FT Traffic

Module 10:- vSphere Storage

- Datastore Concepts
- Shared Storage
- SAN vs NAS
- VMFS and NFS
- FC & iSCSI SAN
- Thin Disk, Thick Lazy Disk & Thick Eager Disk
- Basics of HCI-Hyper Converged Infrastructure
- Formatting Local Storage as VMFS
- Adding iSCSI SAN to ESXi host and Formatting as VMFS
- Mounting NFS storage on ESXi host

Module 11:- vMotion & SVMotion

- Live Storage Migration using SVMotion
- Live Server Migration using vMotion
- Live Server & Storage Migration without Shared Storage (vMotion+SVMotion)

Module 12:- DRS & SDRS

- Load Balancing across ESXi hosts using DRS
- Enhanced vMotion Compatibility (EVC)
- Automation Levels in DRS
- DRS Rules to keep VM Separate & Together
- DRS rule VM to Host
- Power Saving using DPM
- Load Balancing across Datastore using SVMotion
- Automation levels in SDRS
- SDRS VM Affinity & vmdk Anti-Affinity rules
- Overriding SDRS cluster Setting for vmdk anti-affinity rule

Module 13:- High Availability & Fault Tolerance

- Requirements & Licensing for High Availability(HA)
- Election of Master & Slave Host
- Configuring & Testing HA
- Primary & Secondary VM in FT
- Configuring & Testing Fault Tolerance

Module 14:- vSphere Distributed Switch

- Creating Distributed Switch
- Adding ESXi Host to dvSwitch
- Migrating all VMs & VMkernel to dvSwitch
- Migration from Standard to Distributed switch

Module 15:- P2V Conversion, Backup of vCenter & Update Manager

- P2V/ V2V using VMware vCenter Converter Standalone
- Taking Backup of vCenter and Restoring Stage 1
- Taking Backup of vCenter and Restoring Stage 2
- Using VMware Lifecycle Manager to Upgrade and Patch ESXi host