VMWARE Course

Course Objectives

- Introduction to Physical Vs Virtualization Infrastructure.
- Introduction to VMware Virtualization
- Introduce virtualization, virtual machines, and vSphere components
- Explain the concepts of server, network, and storage virtualization
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere user interfaces

VMware ESXi OS

- Introduction to ESXi server Operating System
- Installation, Configuration, and Troubleshooting

VMware vCenter Server

- Introduce vCenter Server architecture
- Introduce vCenter Server appliance
- Configure and manage vCenter Server appliance
- Manage vCenter Server inventory objects and licenses

Virtual Machines

- Introduction to virtual machines
- Creation, Configuration and Troubleshooting
- Understanding about VM Hardware versions and VM Files

Configure and Manage Virtual Networks

- Describe, create, and manage a standard virtual switch
- Describe and modify standard virtual switch properties
- Configure virtual switch load-balancing algorithms

Configure and Manage Virtual Storage

- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage vSphere datastores
- Deploy and manage the VMware vSphere Storage Appliance

➢ Virtual Machine Management

➢ Deploy virtual machines using templates and cloning
➢ Modify and manage virtual machines
➢ Create and manage virtual machine snapshots
➢ Perform VMware vSphere vMotion and Storage vMotion migrations
➢ Create a vSphere vApp

Data Protection

➢ Discuss a strategy for backing up ESXi hosts and vCenter Server
➢ Introduce the VMware Data Recovery appliance
➢ Discuss solutions for backing up virtual machines efficiently

Access and Authentication Control

➢ Control user access through roles and permissions
➢ Configure and manage the ESXi firewall
➢ Configure ESXi lockdown mode
➢ Integrate ESXi with Active Directory

Introduce VMware vShield Zones

➢ Resource Management and Monitoring
➢ Introduce virtual CPU and memory concepts
➢ Describe methods for optimizing CPU and memory usage
➢ Configure and manage resource pools
➢ Monitor resource usage using vCenter Server performance graphs and alarms

High Availability and Fault Tolerance

➢ Introduce new vSphere High Availability (HA) architecture
➢ Configure and manage a vSphere High Availability cluster
➢ Introduce VMware Fault Tolerance

Scalability

➢ Configure and manage a VMware Distributed Resource Scheduler (DRS) cluster
➢ Configure Enhanced vMotion Compatibility

➢ Use vSphere HA and DRS together

ESXi & vCenter Patch Management

➢ Manage ESXi patching using vCenter Update Manager
➢ Install Update Manager and Update Manager plug-in
➢ Create patch baselines
➢ Scan and remediate hosts

Installing VMware Components

➢ Introduce ESXi installation
➢ Describe boot from SAN requirements
➢ Introduce vCenter Server deployment options
➢ Describe vCenter Server hardware, software, and database requirements
➢ Install vCenter Server