Linux Pathshala

Detailed Course Outline

1. Course Introduction

- Introductions and course logistics
- Course objectives

2. Virtualized Data Center

- Introduce components of the virtualized data center
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere Client

3. Creating Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine

4. VMware vCenter Server

- Introduce the vCenter Server architecture
- Introduce VMware® vCenter™ Single Sign-On™
- Install and use vSphere Web Client
- Introduce VMware® vCenter™ Server Appliance™
- Configure and manage vCenter Server Appliance
- Manage vCenter Server inventory objects and licenses

5. Configuring and Managing Virtual Networks

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

6. Configuring and Managing 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 VMware vSphere® Storage Appliance

7. Virtual Machine Management

- Use templates and cloning to deploy virtual machines
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform VMware vSphere® vMotion® and VMware vSphere®
- Storage vMotion® migrations

- Create a VMware vSphere® vApp™

8. Access and Authentication

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

9. 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

10. High Availability and Fault Tolerance

- Introduce the new VMware vSphere® High Availability architecture
- Configure and manage a vSphere HA cluster
- Introduce VMware vSphere® Fault Tolerance
- Describe VMware vSphere® Replication

11. Scalability

- Configure and manage a VMware vSphere® Distributed Resource Scheduler™ (DRS) cluster
- Configure Enhanced vMotion Compatibility
- Use vSphere HA and DRS together

12. Patch Management

- Use vSphere Update Manager to manage ESXi patching
- Install vSphere Update Manager and the vSphere Update Manager plug-in
- Create patch baselines
- Scan and remediate hosts

13. 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 (Windows-based)