

### **Introduction to Virtualization**

- What is Virtualization?
- Types of Virtualization
- Future of Virtualization
- Virtualization Products and Vendors
- Hardware Virtualization Products Comparison
- Introduction to VMware ESX Server
- Difference between ESX and ESXi release
- What are VMware vSphere Suite products?

### **Planning for VMware ESX Infrastructure**

- Technical requirements of VMware vSphere Infrastructure
- Prerequisites for VMware vSphere Infrastructure
- ESX Server Recommendations
- Knowledge of VMX and VHDK files
- Our Scenario and Concept for Lab

### **Installing ESX Server**

- Installing VMware ESXi on Physical Machine
- Installing VMware ESX on Physical Machine
- Introduction to VMware Workstation
- Installing VMware ESXi and ESX on VMware Workstation

### **Configuring VMware ESX Server**

- Installing vSphere Client on Local Machine in Network
- Using and navigating vSphere Client to setup ESX Server
- Installing Solar VMware Manager
- Installing vCenter
- Prerequisites and Guideline for vCenter Server Setup
- Installing VMware vCenter Server on Local Machine in Network
- Pointing vSphere Client to vCenter Server Machine

- Using vCenter Server to access ESX Server
- Understanding extra options with vCenter Server
- Licensing ESXi and ESX Server
- Managing vCenter Server License
- Setting up Web Interface for accessing ESX Server

## **Virtual Machine or Guest Machines**

- Guest Machine Vs Host Machine
- Installing Virtual Machine inside ESX Server using vSphere Client
- Setting up Machine Specification and sharing resources
- Changing BIOS settings
- Creating ISO of Operating System Installation media disk
- Installing Guest Operating System using ISO image
- Adding and removing hardware to and from guest machine
- Hot Keys to use Guest OS from vSphere Client console windows
- Enabling Virtual Machines for Remote Desktop Sharing
- Accessing Virtual Machines from Remote System

## **VMware Tool**

- Importance on VMware Tool
- Installing VMware tool in Guest Machines
- Configuring VMware tools

## **Task, Event and Alarms**

- Configuring SMTP for vCenter Server Email System
- Understanding Tasks and Events in vCenter and ESX Server
- Configuring Alarm for Data Center and Virtual Machines

## **VMware Backup and Migration**

- Understanding the need of backup
- Backup Options in ESX Server
- Using OS Level to backup Virtual Machines
- Using VMDK file level backup to backup Virtual Machines

- Installing Solid Consolidation on vCenter Server
- Using Consolidated Backup Utility to backup Virtual Machines
- Using P2V consolidation using VMware P2V Converter
- Cloning Guest Machines

### **VMware Update Manager**

- Installing Update Manager on VMware vCenter Server
- Using Update Manager to update ESX Server

### **Final Implementation**

- Implementing full scenarios setup on VMware Workstation Guest Machines