VMware vSphere™:
Install, Configure, Manage

Course Overview

This hands-on training course explores installation, configuration, and management of VMware vSphere™, which consists of ESX/ESXi and vCenter Server. The course is based on ESX/ESXi 4.1 and vCenter Server 4.1. Completion of this course satisfies as a prerequisite to take the VMware Certified Professional 4 exam.

Particpants who complete this course may enroll in any of several more-advanced vSphere courses. See www.vmware.com/education for advanced course options.

By instituting this program, VMware seeks to create a collaborative relationship with academic institutions whereby their students may obtain the VMware Certified Professional (VCP) status and other VMware certifications.

Participation in VMware vSphere will provide you with VMware vouchers for exams.

Delivery Methods
- Train the Trainer
- Instructor-led training
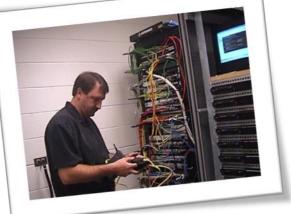- Remote and synchronous training with WebEx

Course Duration
- Pre and post remote synchronous sessions with WebEx
- Three days of instructor-led training
- 60% lecture, 40% hands-on lab

Prerequisites
- System administration experience on Microsoft Windows or Linux operating systems

Target Audience:

CyberWatch Faculty, Academy Instructors or other interested CyberWatch partners

Course Objectives:

At the end of the course, you should gain an understanding of the functionality in VMware vSphere 4 and be able to:

- Install and configure ESX or ESXi
- Install and configure vCenter Server components
- Configure and manage ESX/ESXi networking and storage using vCenter Server
- Deploy, manage, and migrate virtual machines
- Manage user access to the VMware infrastructure
- Use vCenter Server to monitor resource usage
- Use vCenter Server to increase scalability
- Use VMware vCenter Update Manager to apply ESX/ESXi patches
- Use vCenter Server to manage higher availability and data protection

Course Modules:

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 Introduction to VMware Virtualization
- Introduce virtualization, virtual machines, and vSphere components

3 VMware ESX and ESXi
- Introduce the architecture of ESX and ESXi
- Manually configure ESX/ESXi

4 VMware vCenter Server
- Install and configure vCenter Server components
- Manage vCenter Server inventory objects

5 Networking
- Create, configure, and manage vNetwork standard switches, network connections, and port groups

6 Storage
- Configure ESX/ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage vSphere datastores

7 Virtual Machines
- Deploy virtual machines using the Create New Virtual Machine wizard, templates, cloning, and VMware vCenter Converter
- Modify and manage virtual machines
- Perform Storage vMotion migrations

8 Access Control
- Control user access through roles and permissions

9 Resource Monitoring
- Control virtual machine access to CPU, memory, and I/O resources
- Introduce VMkernel methods for optimizing CPU and memory usage
- Monitor resource usage using vCenter Server performance graphs and alarms

10 Data Protection
- Back up and recover virtual machines using VMware Data Recovery

11 Scalability
- Manage multiple vCenter Server inventories using VMware vCenter Linked Mode
- Manage ESX/ESXi configuration compliance using Host Profiles
- Create, configure, and manage vNetwork distributed switches, network connections, and port groups
- Perform VMware vMotion™ migrations
- Configure and manage a VMware Distributed Resource Scheduler cluster
- Configure and manage VMware Distributed Power Management

12 High Availability
- Configure and manage a VMware High Availability cluster
- Configure fault-tolerant virtual machines using VMware Fault Tolerance

13 Patch Management
- Manage patching and patch compliance using vCenter Update Manager

14 Installing VMware ESX and ESXi
- Introduce ESX and ESXi Installable installation

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