VMWARE VSPHERE: WHATCODE2UTF('8217',0)S NEW (V5.5 TO V6.5)
CODE STAGE : AS742

OBJECTIFS

By the end of the course, you should be able to meet the following objectives

DURÉE

3 jours

PUBLIC

System architects, system administrators, IT managers, VMware partners, and individuals responsible for implementing and managing vSphere architectures

PRÉ-REQUIS

This course requires completion of one the following courses or equivalent knowledge and administration experience with VMware ESX®/ESXi and vCenter Server

PROGRAMME

1. Course Introduction
Introductions and course logistics
Course objectives

2. Introduction to vSphere 6.5
Discuss vSphere 6.5 feature enhancements
Use vSphere Client, VMware Host Client, and the appliance shell of vCenter Server Appliance

3. Installation and Upgrade
Describe new vCenter Server architecture features
Choose between a distributed configuration and an embedded configuration based on your requirements
Describe the enhancements to vCenter Server Appliance
Describe the vCenter Server Appliance deployment
Describe the hardware requirements for installing vCenter Server Appliance

Identify the information that is needed before you begin the installation

Deploy a Platform Services Controller appliance

Describe how to upgrade vCenter Server Appliance 5.x to vCenter Server Appliance 6.5

Describe how to upgrade an ESXi 5.x host to an ESXi 6.5 host

List the benefits of using the content library

Create a basic content library

Synchronize a content library across vCenter Server instances

4. Compute Enhancements

Discuss the enhancements to vSphere 6.5 scalability and performance

Discuss the additional features to support hot-plug and SMART solid-state drives

Describe new capabilities of host profiles introduced in vSphere 6.5

Discuss the improvements to lockdown settings

Describe the addition of smart-card authentication

Explain the changes that enhance user accountability

Discuss how virtual hardware 12 extends virtual machine resource configurations

Describe how using large receive offload reduces CPU-associated costs for network packet processing

Discuss how hot-add memory is distributed across NUMA nodes in vSphere 6.5

5. Storage Enhancements

Discuss the benefits of using VMFS 6 with vSphere

Upgrade from VMFS 5 to VMFS 6

Discuss the benefits of using VMFS 6 with vSphere

Discuss the benefits of using NFS v4.1 with vSphere

Identify the differences between NFS v3 and NFS v4.1

Describe the implications of using NFS v4.1

Describe the advantages of the new Vmware Virsto tm on-disk file system

Describe the advantages of the vsanSparse snapshot format

Describe the advantages of fault domains to withstand rack-local failures

Describe the benefits of applying different default policies to different Vmware Virtual SAN™ datastores

Describe the benefits of using virtual volumes

Describe per virtual machine, policy-based policy management

Describe how VMDK data operations are offloaded to storage arrays through the use of Vmware vSphere® API for Storage Awareness tm

6. Network Enhancements

Work with Network I/O Control

Upgrade Network I/O Control to version 3

Enable network resource management on Vmware vSphere® Distributed Switch tm

Configure bandwidth allocation for system and virtual machine traffic based on shares and reservations.

Discuss IPv6 support in vSphere 6.5

7. Management Enhancement

List the core security modules that are part of Platform Services Controller

List the Vmware certificate management components

Describe certificate use changes in vSphere 6.5

List the certificate management components that are part of Platform Services Controller

Describe the primary services provided by the Vmware Certificate Authority component

Describe the primary services provided by the Vmware Endpoint Certificate Store component

Define Vmware CA certificate replacement options

Describe ESXi certificate replacement options

Discuss certificate-based guest authentication

8. Availability Enhancements

Describe the new TCP/IP stack for vSphere vMotion

Explain the changes that make vSphere vMotion migrations across high-latency networks possible

Discuss the requirements for migrating a virtual machine across vCenter Server instances

Explain how Vmware vSphere® Fault Tolerance supports virtual machines with multiple virtual CPUs

Describe how vSphere Fault Tolerance maintains the secondary virtual machine in a ready state

Explain the mechanism by which the primary virtual machine is determined

Discuss the improvements made in handling all paths down and permanent device lost conditions

Describe the increased scalability of vSphere HA

Explain the additional compatibility supported by vSphere HA

9. Security Enhancements

Plan for secure boot support for ESXi host

Deploy enhanced vCenter Server events and alarms, and vSphere logging

Evaluate virtual machine encryption

Enable encrypted vSphere vMotion

Use encrypted core dumps