

دوره جامع متخصص مجازی سازی

شرح مختصر

دوره آموزش متخصص مجازی سازی

مروری بر دوره

مروری بر دوره

دوره جامع متخصص مجازی سازی

سرفصل ها (حضور)

سرفصل ها

Storage Overview

Objective

- Information storage
- Key characteristics of data center
- Compute, storage, and networking
- Types of intelligent storage systems
- Scale-up and scale-out storage architecture
- Block-based Storage System
- Components of block-based storage system
- Storage provisioning and storage tiering
- Raid

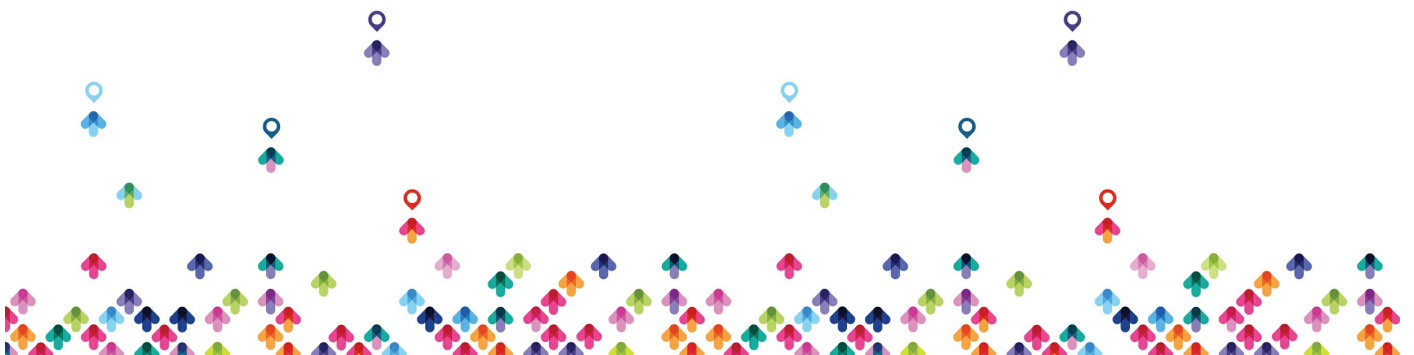


- Fibre Channel SAN
- FC SAN Overview
- FC architecture
- FC topology and zoning
- SAN Virtualization
- IP and FCoE SAN
- Overview of TCP/IP
- IP SAN overview
- iSCSI
- FCIP
- FCoE

Server overview

Objectives

- Firmware upgrade process
- Configuring HP ProLiant server
- DDR \times memory specifications and configuration rules
- Configuring storage subsystem
- HP Insight Control management suites
- SmartStart
- ProLiant Support Pack
- HP Lights-Out technology and benefits
- Functions of iLO \times Management processor
- Storage technologies



- HP disk drives
- HP ProLiant Array controllers
- Storage solutions
- Learning check

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Objective

۱ Course Introduction

- Introductions and course logistics
- Course objectives Introduction to vSphere and the Software-Defined Data Center
- Explain basic virtualization concepts
- Describe how vSphere fits into the software-defined data center and the cloud infrastructure
- Explain how vSphere interacts with CPUs, memory, networks, and storage
- Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
- Describe the ESXi host architecture



- Navigate the Direct Console User Interface (DCUI) to configure an ESXi host
- Recognize ESXi host user account best practices
- Install an ESXi host
- Use VMware Host Client™ to configure ESXi host setting

Virtual Machines

- Create and provision a virtual machine
- Explain the importance of VMware Tools™
- Install VMware Tools
- Identify the files that make up a VM
- Recognize the components of a VM
- Recognize virtual devices supported by a VM
- Describe the benefits and use cases for containers
- Identify the parts of a container system

۴ vCenter Server

- Describe the vCenter Server architecture
- Discuss how ESXi hosts communicate with vCenter Server



- Deploy and configure vCenter Server Appliance
- Use vSphere Client to manage the vCenter Server inventory
- Add data center, organizational objects, and hosts to vCenter Server
- Use roles and permissions to enable users to access objects in the vCenter Server inventory
- Back up vCenter Server Appliance

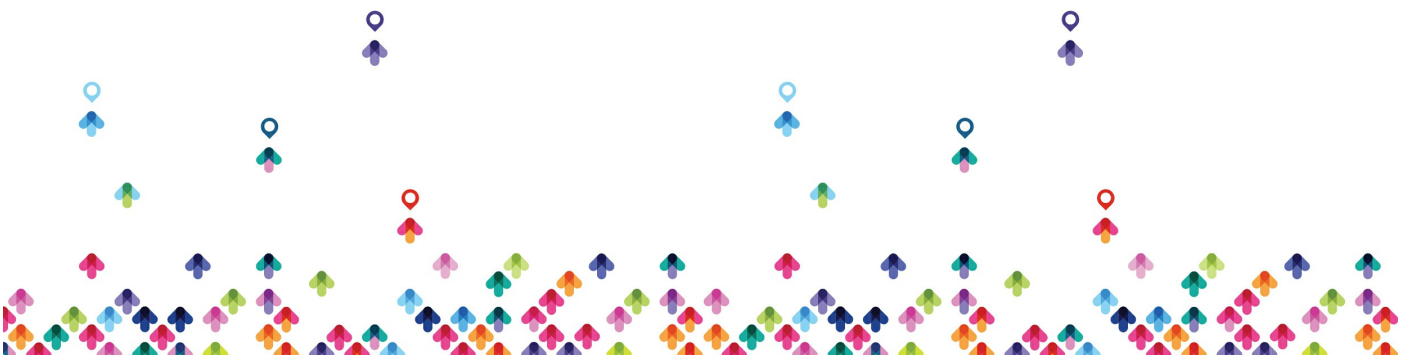
- Monitor vCenter Server tasks, events, and appliance health
- Use VMware vCenter Server® High Availability to protect a vCenter Server Appliance

Configuring and Managing Virtual Networks

- Create and manage standard switches
- Describe the virtual switch connection types
- Configure virtual switch security, traffic-shaping, and load-balancing policies
- Compare vSphere distributed switches and standard switches

Configuring and Managing Virtual Storage

- Identify storage protocols and storage device types
- Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage



- Create and manage VMFS and NFS datastores
- Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
- Recognize the components of a VMware vSAN™ configuration

Virtual Machine Management

- Use templates and cloning to deploy new virtual machines
- Modify and manage virtual machines
- Create a content library and deploy virtual machines from templates in the library
- Use customization specification files to customize a new virtual machine
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Describe the Enhanced vMotion Compatibility feature
- Create and manage virtual machine snapshots
- Examine the features and functions of VMware vSphere® Replication™
- Describe the benefits of VMware vSphere® Storage APIs – Data Protection

Resource Management and Monitoring

- Discuss CPU and memory concepts in a virtualized environment
- Describe what overcommitment of a resource means
- Describe methods for optimizing CPU and memory usage
- Use various tools to monitor resource use



- Create and use alarms to report certain conditions or events

vSphere Clusters

- Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster
- Monitor a vSphere cluster configuration
- Describe options for making a vSphere environment highly available
- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Examine the features and functions of VMware vSphere® Fault Tolerance

vSphere Lifecycle Management

- Recognize the importance of vCenter Server Update Planner
- Describe how VMware vSphere® Lifecycle Manager™ works
- Describe how to update ESXi hosts using baselines
- Validate ESXi host compliance using a cluster image
- Describe how to upgrade VMware Tools and VM hardware

