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VMware vSphere 7 Training - Advanced

2 days (14 hours)

Presentation

VMware vSphere 7, named Tanzu, uses virtualization to transform individual data centers into aggregated IT infrastructures including CPU, storage and networking resources. VMware vSphere manages these infrastructures as a unified operating environment, and provides the tools to administer the data centers that participate in this environment. The VMware vSphere stack comprises virtualization, management and interface layers. The two main components of vSphere are ESXi and vCenter Server. ESXi is the virtualization platform on which you create and run virtual machines and devices. vCenter Server is the service that lets you manage multiple hosts connected in a network and host resources in a pool. With VMWare Vsphere Advanced Training you'll be able to : - Pool processing and storage resources from multiple physical hosts. - Benefit from centralized management of multiple hosts via VMware vCenter Server. - Improve service levels and operational efficiency. - Perform hot migration of virtual machines. - Take advantage of automatic load balancing and business continuity features, and advanced backup and restore capabilities for your virtual machines.

Objectives

- Discuss VMware vSphere High Availability (vSphere HA) cluster architecture
- Configuring vSphere HA
- Managing vSphere HA and VMware vSphere Fault Tolerance
- Use VMware vSphere Distributed Resource Scheduler clusters to improve host scalability
- Use VMware vSphere Update Manager to apply patches and updates
- Use VMware vSphere® Replication™ to replicate virtual machines
- Identify troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency

Target audience

- Administrators and Architects

Prerequisites

- Basic knowledge of Linux/Unix or Windows system administration.
- Have taken our [VMware Initiation](#) and [VMware Intermediate](#) training courses

VMware vSphere 7 - Advanced training program

Module 1: VMware vSphere® Distributed Resource Scheduler

- Describe the features and benefits of the vSphere DRS cluster
- Create a vSphere DRS cluster
- View DRS cluster information
- Configure VM-VM affinity, anti-affinity and VM-Host rules
- Delete a host from a DRS cluster

Practical work

- Creating a vSphere DRS cluster
- Checking the vSphere DRS cluster for proper functionality
- Create, test and disable VM-VM affinity, anti-affinity and VM-Host rules

Module 2: Sphere HA and fault tolerance

- vSphere HA architecture explained
- Configuring and managing a vSphere HA cluster
- Using vSphere HA advanced settings
- Reinforce infrastructure or intra-app dependencies during changeover
- Describing the "Heartbeat Network" and the "Heartbeat Datastore"
- Introduce the features and functions of vSphere fault tolerance
- Make fault tolerance available on virtual machines
- Support fault tolerance interoperability with vSAN
- Examine fault tolerance improvements for virtual machines
- Overview of vSphere replication features and functions

Practical work

- Creating a vSphere HA cluster
- vSphere HA functionality test
- Display vSphere HA cluster resource usage
- Manage vSphere HA slot size

Module 3: vSphere Update Manager

- Describe the architecture, components and capabilities of vSphere Update Manager
- Use vSphere Update Manager to manage patches for ESXi, virtual machines and vApps
- Examine the features and functions of vSphere Update Manager's EAM integration
- Use host profiles to manage host configuration compliance
- Integrate vSphere Update Manager with vSphere DRS

Practical work

- Installing and configuring vSphere Update Manager
- Create a Patch Baseline
- Attach a Baseline and search for updates
- Transfer patches to ESXi hosts
- ESXi host correction

Module 4: vSphere Update Manager

- Apply a troubleshooting methodology to diagnose faults logically and improve troubleshooting efficiency
- Examine troubleshooting tools
- Find important log files
- Using vSphere Syslog Collector

Practical work

- Analysis of ESX, ESXi and vCenter Server logs
- Centralize ESXi logs
- Network troubleshooting
- Storage troubleshooting

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology or to

acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.