5 Days

VMware vSphere: Install, Configure, Manage V7

This five-day intensive hands-on training course enables you to install, configure, and manage VMware vSphere® 7, VMware ESXi™ 7 and VMware vCenter Server® 7. It helps you to administer the vSphere infrastructure for your organization irrespective of size.

The course forms the foundation for several VMware technologies in the software-defined data center. It aligns with the product ESXi 7 and vCenter Server 7.

Course Objective:

On completion of the course, you will be able to

- Describe software-defined data center, vCenter Server architecture, vSphere standard switches, vSphere components and their function, Discuss (vSphere HA) cluster architecture, and Fibre Channel and VMware vSAN™ features and functions
- Use vCenter Server, Local content library as ISO store, VMware vSphere® Replication™, VMware vSphere® Data Protection™, VMware vSphere® Distributed Resource Scheduler™, VMware vSphere® Update Manager™.
- Add ESXi hosts to the VMware vCenter® Server Appliance™
- Configure and manage
    - vCenter Server Appliance
    - vSphere infrastructure with VMware Host Client™ and VMware vSphere® Client™
    - Resource usage, and resource pools
    - vSphere HA
    - vSphere HA and VMware vSphere® Fault Tolerance
    - Standard switch policies
    - Host storage Types: VMware vSphere® VMFS, NFS, iSCSI, and RDM
    - Virtual machines, templates, clones, and snapshots
- Migration of Virtual machines with VMware vSphere® vMotion®; Virtual machine storage with VMware vSphere® Storage vMotion®
- Troubleshooting methodologies

Course Details

Course Outline

1. Course Introduction

- Introduction, logistics, objectives, and content
- VMware education benefits
- Additional resources

2. Introduction to vSphere and the Software-Defined Data Center

- vSphere in the software-defined data center
- vSphere Interaction: CPUs, Memory, Network, Storage
- Access and manage vCenter Server system and ESXi host
- Virtual network adapters, VMXNET3, Virtual disk provisioning types
- ESXi host settings installation and configuration

- ESXi Quick Boot advantages

3. Creating Virtual Machines

- Create, provision, and remove a virtual machine
- VMware Tools™ significance
- Import virtual appliance OVF template

4. vCenter Server

- vCenter Server architecture
- ESXi hosts communication with vCenter Server
- Access and configure vCenter Server Appliance
- Manage the vCenter Server inventory
- Add data center, organizational objects, and hosts to vCenter Server
- Create custom inventory tags, custom role, vCenter Server Appliance backup schedule
- Rules for applying for permissions
- Monitoring and restorage of vCenter Server Appliance

5. Configuring and Managing Virtual Networks

- Standard switches: configuration and management
- Configure virtual switch security
- vSphere distributed and standard switches
- Virtual switch connection types
- TCP/IP stack architecture
- Use of VLANs with standard switches

6. Configuring and Managing Virtual Storage

- Storage protocols and device types
- Use of iSCSI, NFS, and Fibre Channel storage
- VMware vSphere® VMFS and NFS datastores
- Multipathing works
- Advantages of VMware vSAN™

7. Virtual Machine Management

- Deploy, modify, customize, and, manage new virtual machines
- Modify and manage virtual machines
- Instant cloning of a virtual machine
- Content libraries types and deployment
- Migration of vSphere vMotion and Storage
- Virtual machine snapshots

8. Resource Management and Monitoring

- CPU and memory concepts
- Resource overcommitment of a resource means
- Resource pools management and configuration
- CPU optimization and memory usage
- Creation and use of alarms

9. vSphere HA, vSphere Fault Tolerance, and Protecting Data

- vSphere HA architecture, configuration, and, management
- Use vSphere HA advanced parameters
- Infrastructural or intra-app dependencies
- vSphere Fault Tolerance, features, support, interoperability, and functions
- vSphere Replication features and functions

10. vSphere DRS

- vSphere DRS cluster creation and functions
- Configuration of
    - Virtual machine affinity
    - DRS groups

- VM-host affinity rules
- Removal of the host from a vSphere DRS cluster

11. vSphere Update Manager

- Architecture, Components, and Capabilities
- ESXi, virtual machines, and vApps patching
- vSphere Update Manager EAM integration features and functions
- Integration of vSphere Update Manager with vSphere DRS

12. vSphere Troubleshooting

- Diagnosis, Application, review, and enhancement of troubleshooting efficiency
- Log files and use of vSphere Syslog Collector

Who Should Attend

- System administrators
- System engineers

Pre Requisite

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

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