VMware vSphere: Install, Configure, Manage

Varighet: 5 Days   Kurskode: VSICM   Version: 6.7

Beskrivelse:

This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere, including VMware ESXi and VMware vCenter Server. This course prepares you to administer a vSphere infrastructure for an organisation of any size. The knowledge and skills covered in this course provide a foundation for most other VMware technologies in the software-defined data center.

Målgruppe:

System engineers and administrators involved in the administration of a VMware vSphere solution.

Agenda:

- **After completing this course you should be able to:**

- Describe the software-defined data center

- Explain the vSphere components and their function in the infrastructure

- Add ESXi hosts to a VMware vCenter Server Appliance instance

- Manage vCenter Server Appliance

- Use a local content library as an ISO store, and deploy a virtual machine

- Describe vCenter Server architecture

- Use vCenter Server to manage an ESXi host

- Configure and manage vSphere infrastructure with VMware Host Client and VMware vSphere Client

- Describe virtual networks with vSphere standard switches

- Configure standard switch policies

- Use vCenter Server to manage various types of host storage: VMware vSphere VMFS, NFS, iSCSI, and RDM

- Examine the features and functions of Fibre Channel and VMware vSAN

- Manage virtual machines, templates, clones, and snapshots

- Migrate virtual machines with VMware vSphere vMotion

- Migrate virtual machine storage with VMware vSphere Storage vMotion

- Monitor resource usage, and manage resource pools

- Discuss the VMware vSphere High Availability cluster architecture

- Configure vSphere HA

- Manage vSphere HA and VMware vSphere Fault Tolerance

- Use VMware vSphere Replication and VMware vSphere Data Protection to replicate virtual machines and perform data recovery

- Use VMware vSphere Distributed Resource Scheduler clusters to improve host scalability

- Use VMware vSphere Update Manager to apply patches and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations

- Identify troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency

Forkunnskaper:

Attendees should meet the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

Test og sertifisering

Recommended as preparation for the following exams:

- 2V0-622 - VMware Certified Professional 6.5 – Data Center Virtualization Exam
- 2V0-21.19 - Professional vSphere 6.7 Exam 2019

Påfølgende kurs:

The following courses are recommended for further study:

- VSD - VMware vSphere: Design Workshop
- VST - VMware vSphere: Troubleshooting Workshop
- VSOS - VMware vSphere: Optimize & Scale

Innhold:

Course Introduction

- Introductions and course logistics
- Course objectives
- Describe the content of the course
- Gain a complete picture of the VMware certification system
- Familiarize yourself with the benefits of the VMware Education Learning Zone
- Identify additional resources

Introduction to vSphere and the Software-Defined Data Center

- Describe how vSphere fits into the softwaredefined data center and the cloud infrastructure
- Explain how vSphere interacts with CPUs, memory, networks, and storage
- Use vSphere Client to access and manage your vCenter Server system and ESXi host
- Compare virtual machine hardware version 14 to other versions
- Identify the virtual network adapters, and describe the enhanced VMXNET3
- Compare the types of virtual disk provisioning
- Identify the advantages of ESXi Quick Boot

Creating Virtual Machines

- Create, provision, and remove a virtual machine
- Explain the importance of VMware Tools
- Describe how to import a virtual appliance OVF template

vCenter Server

- Describe the vCenter Server architecture
- Discuss how ESXi hosts communicate with vCenter Server
- Access and configure vCenter Server Appliance
- Use vSphere Client to manage the vCenter Server inventory
- Create custom inventory tags
- Describe the rules for applying permissions
- Create a custom role in vCenter Server
- Create a vCenter Server Appliance backup schedule
- Restore vCenter Server Appliance from backup
- Monitor vCenter Server Appliance

Configuring and Managing Virtual Networks

- Describe, create, and manage standard switches
- Configure virtual switch security and loadbalancing policies
- Compare vSphere distributed switches and standard switches
- Describe the virtual switch connection types
- Describe the new TCP/IP stack architecture
- Use VLANs with 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 VMware vSphere VMFS and NFS datastores
- Explain how multipathing works iSCSI, NFS and Fibre Channel storage
- Identify the advantages of VMware vSAN

Virtual Machine Management

- Use templates and cloning to deploy new virtual machines
- Modify and manage virtual machines
- Create an instant clone of a virtual machine
- Identify the types of content libraries and how to deploy and use them
- Add a hot-pluggable device
- Dynamically increase the size of a virtual disk
- Use customization specification files to customize a new virtual machine
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Create and manage virtual machine snapshots

Resource Management and Monitoring

- Discuss CPU and memory concepts in a virtualized environment
- Describe what overcommitment of a resource means
- Identify additional technologies that improve memory usage
- Configure and manage resource pools
- Describe methods for optimizing CPU and memory usage
- Use various tools to monitor resource usage
- Create and use alarms to report certain conditions or events

vSphere HA, vSphere Fault Tolerance and Protecting Data

- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Use vSphere HA advanced parameters
- Enforce infrastructural or intra-app dependencies during failover
- Describe vSphere HA heartbeat networks anddatastore heartbeats
- Examine the features and functions of vSphere Fault Tolerance
- Enable vSphere Fault Tolerance on virtual machines
- Support vSphere Fault Tolerance interoperability with vSAN
- Examine enhanced consolidation of vSphere Fault Tolerance virtual machines
- Examine the features and functions of vSphere Replication

vSphere DRS

- Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster
- View information about a vSphere DRS cluster
- Configure virtual machine affinity, DRS groups, and VM-host affinity rules
- Remove a host from a vSphere DRS cluster

vSphere Update Manager

- Describe the new architecture, components, and capabilities of vSphere Update Manager
- Use vSphere Update Manager to manage the patching of ESXi, virtual machines, and vApps
- Examine the features and functions of vSphere Update Manager EAM integration
- Integrate vSphere Update Manager with vSphere DRS

vSphere Troubleshooting

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

Ytterligere informasjon:

For mer informasjon eller kursbooking, vennligst ring oss 22 95 66 00

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