

VMware Certified Professional (VCP-DCV)



Online Course

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VCP-DCV - Data Center Virtualization

Course Modules

1. Architectures and Technologies

- Identify the pre-requisites & components for a VMware vSphere 8.x
- Components and topology of a VMware vCenter architecture
- Describe storage concepts
 - Identify & diff storage access protocols for VMware vSphere
 - Describe storage datastore types for VMware vSphere
 - Explain the importance of advanced storage configurations
 - Describe storage policies
 - Basic storage concpts in VMware vSAN & VMware Virtual Volumes
 - Cases for raw device mapping (RDM), Persistent Memory (PMem)
 - Describe datastore clusters
 - Describe Storage I/O Control (SIOC)
- Describe VMware ESXi cluster concepts
 - Describe VMware Distributed Resource Scheduler (DRS)
 - Describe vSphere Enhanced vMotion Compatibility (EVC)
 - Describe how DRS scores virtual machines
 - Describe VMware vSphere High Availability (HA)
 - Identify use cases for fault tolerance



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- Explain the diff btwn VMware standard switches & distributed swtchs
 - Describe VMkernel networking
 - Networking on multiple hosts with vSphere Distributed Switch
 - Describe networking policies
 - Network I/O Control (NIOC) on a vSphere Distributed Switch (VDS)
 - Describe Network I/O Control (NIOC)
- Describe VMware vSphere Lifecycle Manager concepts
- Describe the basics of VMware vSAN as primary storage
 - Identify basic vSAN requirements (networking, disk count, & type)
 - Identify Express Storage Architecture (ESA) concepts for vSAN 8
- Describe the role of Virtual Machine Encryption in a data center
 - Describe vSphere Trust Authority
 - Describe the role of a Key Mngmnt Services (KMS) server in vSphere
- Recognize methods of securing virtual machines
 - Recognize use cases for a virtual Trusted Platform Module (vTPM)
 - Diff bet Basic Input or Output System (BIOS) & (UEFI) firmware
 - Recognize use cases for MS virtualization-based security (VBS)
- Describe identity federation
 - Describe the architecture of identity federation
 - Recognize use cases for identity federation



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- Describe VMware vSphere Distributed Services Engine
 - Describe the role of a data processing unit (DPU) in vSphere
- Identify use cases for VMware Tools
 - Describe the high-level components of VMware vSphere with Tanzu
 - The use case for a Supervisor Cluster & Supervisor Namespace
 - Identify the use case for vSphere Zones
 - The use case for a VMware Tanzu Kubernetes Grid (TKG) cluster

2. VMware Products and Solutions

- The role of VMware vSphere in the Software-Defined Data Center
- Not included in the exam
- Identify use cases for VMware vCenter Converter
- Identify disaster recovery (DR) use cases
 - Identify VMware vCenter replication options
 - Identify use cases for VMware Site Recovery Manager (SRM)

Planning and Designing



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3. Installing, Configuring, and Setup

- Describe single sign-on (SSO)
 - Configure a single sign-on (SSO) domain
 - Join an existing single sign-on (SSO) domain
- Configure vSphere distributed switches
 - Create a distributed switch
 - Add ESXi hosts to the distributed switch
 - Examine the distributed switch configuration
- Config Virtual Standard Switch (VSS) advanced virtual ntwrkng optns
- Set up identity sources
 - Configure identity federation
 - Configure LDAP integration
- Deploy and configure VMware vCenter Server Appliance (VCSC)
- Create & configure VMware HA and DRS advanced options
- Deploy and configure VMware vCenter High Availability
- Set up content library
 - Create a content library
 - Add content to the content library
 - Publish a local content library



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- Subscribe to content library
 - Create a subscribed content library
 - Subscribe to a published content library
 - Deploy virtual machines (VMs) from a subscribed content library
- Manage virtual machine (VM) template versions
 - Update template in content library
- Configure VMware vCenter file-based backup
- Configure vSphere Trust Authority
- Configure vSphere certificates
 - Describe Enterprise PKIs role for SSL certificates
- Configure vSphere Lifecycle Manager
- Configure different network stacks
- Configure host profiles
- Identify ESXi boot options
 - Configure Quick Boot
 - Securely Boot ESXi hosts
- Deploy & config clusters usg the vSphere Cluster Quickstrt workflow
 - Use Cluster Quickstart workflow to add hosts
 - Use Cluster Quickstart workflow to configure a cluster
 - Use Quickstart to expand clusters



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- Configure VMware vSphere with Tanzu
- Configure a Supervisor Cluster & Supervisor Namespace
- Configure a Tanzu Kubernetes Grid Cluster
- Configure vSphere Zones
- Configure Namespace permission

4. Performance-tuning, Optimization, Upgrades

- Identify resource pools use cases
 - Explain shares, limits and reservations (resource management)
- Resources of a VMware vCenter Server Appliance (VCSA) & vSphere 8.x
- Identify and use resource monitoring tools
- Configure Network I/O Control (NIOC)
- Configure Storage I/O Control (SIOC)
- Config a virtual machine port group to be offload to a data processing
- Explain the performance impact of maintaining virtual machine snapshots
- Use Update Planner to identify opportunities to update VMware vCenter
- Use vSphere Lifecycle Manager to determine the need for upgrades
 - Update virtual machines
 - Update VMware ESXi



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- Use performance charts to monitor performance
- Perform proactive management with VMware Skyline
- Use VMware vCenter management interface to update VMware vCenter
- Complete lifecycle activities for VMware vSphere with Tanzu
 - Update Supervisor cluster
 - Backup and restore VMware vSphere with Tanzu

5. Troubleshooting and Repairing

- Cases for enabling vSphere Cluster Services (vCLS) retreat mode
- Diffte btwn the main management servcs in VMware ESXi & vCenter
- Generate a log bundle

6. Administrative and Operational Tasks

- Create and manage virtual machine snapshots
- Create virtual machines using different methods (OVF) templates
- Manage virtual machines (modifying virtual machine settings)
- Manage storage
 - Configure and modify datastores
 - Create virtual machine storage policies
 - Configure storage cluster options



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- Create DRS affinity and anti-affinity rules for common use cases
- Migrate virtual machines
 - Identify requirements for Storage vMotion, Cold Migration, vMotion
- Configure role-based access control
- Manage host profiles
- Utilize VMware vSphere Lifecycle Manager
 - Describe firmware upgrades for VMware ESXi
 - Describe VMware ESXi updates
 - Describe component and driver updates for VMware ESXi
 - Describe hardware compatibility check
 - Describe ESXi cluster image export functionality
 - Create VMware ESXi cluster image
- Use predefined alarms in VMware vCenter
- Create custom alarms
- Deploy an encrypted virtual machine
 - Convert a non-encrypted virtual machine to an encrypted virtual machine
 - Migrate an encrypted virtual machine
 - Configure virtual machine vMotion encryption properties

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