

VMware Certified Professional 6 – Data Center Virtualization Exam

Exam Preparation Guide

Exam Code: 2V0-621
Exam Preparation Guide Version 1.5
05 August 2015



Disclaimer:

This preparation guide is intended to provide information about the objectives covered by this exam, as well as related resources. The material contained within this guide is not intended to guarantee that a passing score will be achieved on the exam. VMware recommends that a candidate thoroughly understands the objectives indicated in this guide and utilizes the resources recommended in this guide where needed to gain that understanding.

Exam Preparation Guide Authors:

Jon C. Hall

Jeff Hall

Jordan Roth

Ken Thacker

Exam Preparation Guide Contributors:

Mostafa Khalil

Garth Miller

Damian Wraa

Linus Bourque

Jonathan McDonald

Jeff Weiss

Vivian Li

Lizann Dunegan

Rob Philp

Joe Desmond

Andrew Ellwood

Arantxa Duque Barrachina

Carla Gavalakis

Contents

1. The Exam.....	3
1.1 Purpose of Exam	3
1.2 Intended Audience.....	3
2. Objectives covered in the VCP6-DCV Exam (2V0-621):	3
2.1 Introduction	3
2.2 Objectives	3
Section 1 – Configure and Administer vSphere 6.x Security	4
Section 2 – Configure and Administer Advanced vSphere 6.x Networking.....	6
Section 3 – Configure and Administer Advanced vSphere 6.x Storage	7
Section 4 – Upgrade a vSphere Deployment to 6.x.....	10
Section 5 – Administer and Manage vSphere 6.x Resources.....	11
Section 6 – Backup and Recover a vSphere Deployment	12
Section 7 – Troubleshoot a vSphere Deployment	12
Section 8 – Deploy and Consolidate vSphere Data Center.....	15
Section 9 – Configure and Administer vSphere Availability Solutions.....	17
Section 10 – Administer and Manage vSphere Virtual Machines	18
3. Additional Resources	19
3.1 Practice Exam.....	19
3.2 VCP Community	19
3.3 Test Driving a VMware vSphere environment.....	19

1. The Exam

1.1 Purpose of Exam

The VMware Certified Professional 6 – Data Center Virtualization Exam (2V0-621) tests candidates on their skills and abilities installing, configuring and administering a VMware vSphere® 6 environment. Successful candidates demonstrate mastery of these skills and abilities.

1.2 Intended Audience

A candidate for the VCP6-DCV certification has approximately six months experience working with a vSphere implementation. They are typically infrastructure personnel who are capable of installing and configuring ESXi Hosts and can use VMware vCenter™ Server to monitor, manage, troubleshoot and administer virtual machines. The successful candidate will most likely have additional industry-recognized general IT certifications or the equivalent experience (typically 2-5 years).

2. Objectives covered in the VCP6-DCV Exam (2V0-621):

2.1 Introduction

It is recommended that candidates have the knowledge and skills necessary to install, configure and administer a vSphere 6 environment before taking the VCP6-DCV Exam. It is also recommended that the candidate complete the course requirement prior to attempting the exam.

Please visit the [VMware Certified Professional 6 – Data Center Virtualization webpage](#) for all requirements needed to obtain the VCP6-DCV certification.

2.2 Objectives

Prior to taking this exam, candidates should understand each of the following objectives. Each objective is listed below; along with related tools the candidate should have experience with, and related documentation that contains information relevant to the objective. All objectives may also be referenced in other product documentation not specifically highlighted below. The candidate should be familiar with all relevant product documentation or have an equivalent skillset.

Section 1 – Configure and Administer vSphere 6.x Security

Objective 1.1 – Configure and Administer Role-based Access Control

Knowledge

- Compare and contrast propagated and explicit permission assignments
- View/Sort/Export user and group lists
- Add/Modify/Remove permissions for users and groups on vCenter Server inventory objects
- Determine how permissions are applied and inherited in vCenter Server
- Create/Clone/Edit vCenter Server Roles
- Configure VMware Directory Service
- Apply a role to a User/Group and to an object or group of objects
- Change permission validation settings
- Determine the appropriate set of privileges for common tasks in vCenter Server
- Compare and contrast default system/sample roles
- Determine the correct permissions needed to integrate vCenter Server with other VMware products

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Security Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [vSphere Administration with the vSphere Client Guide](#)
- vSphere Client / vSphere Web Client

Objective 1.2 – Secure ESXi, vCenter Server and vSphere Virtual Machines

Knowledge

- Harden virtual machine access
 - Control VMware Tools installation
 - Control VM data access
 - Configure virtual machine security policies
- Harden a virtual machine against Denial-of-Service attacks
 - Control VM-VM communications
 - Control VM device connections
 - Configure network security policies
- Harden ESXi Hosts
 - Enable/Configure/Disable services in the ESXi firewall
 - Change default account access
 - Add an ESXi Host to a directory service
 - Apply permissions to ESXi Hosts using Host Profiles
 - Enable Lockdown Mode
 - Control access to hosts (DCUI/Shell/SSH/MOB)

- Harden vCenter Server
 - Control datastore browser access
 - Create/Manage vCenter Server Security Certificates
 - Control MOB access
 - Change default account access
 - Restrict administrative privileges
- Understand the implications of securing a vSphere environment

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Security Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [Security of the VMware vSphere® Hypervisor](#)
- [vSphere Administration with the vSphere Client Guide](#)
- [VMware Hardened Virtual Appliance Operations Guide](#)
- vSphere Client / vSphere Web Client

Objective 1.3 – Enable SSO and Active Directory Integration

Knowledge

- Describe SSO architecture and components
- Differentiate available authentication methods with VMware vCenter
- Perform a multi-site SSO installation
- Configure/Manage Active Directory Authentication
- Configure/Manage Platform Services Controller (PSC)
- Configure/Manage VMware Certificate Authority (VMCA)
- Enable/Disable Single Sign-On (SSO) Users
- Upgrade a single/multi-site SSO installation
- Configure SSO policies
- Add/Edit/Remove SSO identity sources
- Add an ESXi Host to an AD domain

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Security Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [VMware vCenter Server™ 6.0 Deployment Guide](#)
- Direct Console User Interface (DCUI)
- vSphere Client / vSphere Web Client

Section 2 – Configure and Administer Advanced vSphere 6.x Networking

Objective 2.1 – Configure Advanced Policies/Features and Verify Network Virtualization Implementation

Knowledge

- Create/Delete a vSphere Distributed Switch
- Add/Remove ESXi Hosts from a vSphere Distributed Switch
- Add/Configure/Remove dvPort groups
- Add/Remove uplink adapters to dvUplink groups
- Configure vSphere Distributed Switch general and dvPort group settings
- Create/Configure/Remove virtual adapters
- Migrate virtual machines to/from a vSphere Distributed Switch
- Configure LACP on vDS given design parameters
- Describe vDS Security Policies/Settings
- Configure dvPort group blocking policies
- Configure load balancing and failover policies
- Configure VLAN/PVLAN settings for VMs given communication requirements
- Configure traffic shaping policies
- Enable TCP Segmentation Offload support for a virtual machine
- Enable Jumbo Frames support on appropriate components
- Recognize behavior of vDS Auto-Rollback
- Configure vDS across multiple vCenter Servers to support [Long Distance vMotion]
- Compare and contrast vSphere Distributed Switch (vDS) capabilities

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Networking guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [Leveraging NIC Technology to Improve Network Performance in VMware vSphere](#)
- VDS Network Health Check
- vSphere Client / vSphere Web Client

Objective 2.2 – Configure Network I/O Control (NIOC)

Knowledge

- Define NIOC
- Explain NIOC capabilities
- Configure NIOC shares/limits based on VM requirements
- Explain the behavior of a given NIOC setting
- Determine Network I/O Control requirements
- Differentiate Network I/O Control capabilities

- Enable/Disable Network I/O Control
- Monitor Network I/O Control

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Networking guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [Performance Evaluation of Network I/O Control in VMware vSphere 6](#)
- vSphere Client / vSphere Web Client

Section 3 – Configure and Administer Advanced vSphere 6.x Storage

Objective 3.1 – Manage vSphere Storage Virtualization

Knowledge

- Discover new storage LUNs
- Configure FC/iSCSI/FCoE LUNs as ESXi boot devices
- Create an NFS share for use with vSphere
- Enable/Configure/Disable vCenter Server storage filters
- Configure/Edit hardware/dependent hardware initiators
- Enable/Disable software iSCSI initiator
- Configure/Edit software iSCSI initiator settings
- Configure iSCSI port binding
- Enable/Configure/Disable iSCSI CHAP
- Determine use cases for fiber channel zoning
- Compare and contrast array thin provisioning and virtual disk thin provisioning

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Storage guide](#)
- [Best Practices for Running VMware vSphere® on iSCSI](#)
- vSphere Client / vSphere Web Client

Objective 3.2 – Configure Software-defined Storage

Knowledge

- Explain VSAN and VVOL architectural components
- Determine the role of storage providers in VSAN
- Determine the role of storage providers in VVOLS
- Explain VSAN failure domains functionality
- Configure/Manage VMware Virtual SAN

- Create/Modify VMware Virtual Volumes (VVOLs)
- Configure Storage Policies
- Enable/Disable Virtual SAN Fault Domains
- Create Virtual Volumes given the workload and availability requirements
- Collect VSAN Observer output
- Create storage policies appropriate for given workloads and availability requirements
- Configure VVOLs Protocol Endpoints

Tools

- [Administering VMware Virtual SAN](#)
- [vSphere Storage guide](#)
- [What's New: VMware Virtual SAN 6.0](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [Virtual SAN 6.0 Performance: Scalability and Best Practices](#)
- vSphere Client / vSphere Web Client

Objective 3.3 – Configure vSphere Storage Multi-pathing and Failover

Knowledge

- Explain common multi-pathing components
- Differentiate APD and PDL states
- Given a scenario, compare and contrast Active Optimized vs. Active non-Optimized port group states
- Explain features of Pluggable Storage Architecture (PSA)
- Understand the effects of a given claim rule on multipathing and failover
- Explain the function of claim rule elements:
 - Vendor
 - Model
 - Device ID
 - SATP
 - PSP
- Change the Path Selection Policy using the UI
- Determine required claim rule elements to change the default PSP
- Determine the effect of changing PSP on Multipathing and failover
- Determine the effects of changing SATP on relevant device behavior
- Configure/Manage Storage Load Balancing
- Differentiate available Storage Load Balancing options
- Differentiate available Storage Multi-pathing Policies
- Configure Storage Policies
- Locate failover events in the UI

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Storage guide](#)
- [Multipathing Configuration for Software iSCSI Using Port Binding](#)
- vSphere Client / vSphere Web Client

Objective 3.4 – Perform Advanced VMFS and NFS Configurations and Upgrades

Knowledge

- Describe VAAI primitives for block devices and NAS
- Differentiate VMware file system technologies
- Upgrade VMFS3 to VMFS5
- Compare functionality of newly created vs. upgraded VMFS5 datastores
- Differentiate Physical Mode RDMs and Virtual Mode RDMs
- Create a Virtual/Physical Mode RDM
- Differentiate NFS 3.x and 4.1 capabilities
- Compare and contrast VMFS and NFS datastore properties
- Configure Bus Sharing
- Configure Multi-writer locking
- Connect an NFS 4.1 datastore using Kerberos
- Create/Rename/Delete/Unmount VMFS datastores
- Mount/Unmount an NFS datastore
- Extend/Expand VMFS datastores
- Place a VMFS datastore in Maintenance Mode
- Select the Preferred Path/Disable a Path to a VMFS datastore
- Enable/Disable vStorage API for Array Integration (VAAI)
- Given a scenario, determine a proper use case for multiple VMFS/NFS datastores

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Storage guide](#)
- [VMware vSphere® Storage APIs – Array Integration \(VAAI\)](#)
- vSphere Client / vSphere Web Client

Objective 3.5 – Setup and Configure Storage I/O Control

Knowledge

- Describe the benefits of SIOC
- Enable and configure SIOC
- Configure/Manage SIOC
- Monitor SIOC

- Differentiate between SIOC and Dynamic Queue Depth Throttling features
- Given a scenario, determine a proper use case for SIOC
- Compare and contrast the effects of I/O contention in environments with and without SIOC

Tools

- [Administering VMware Virtual SAN](#)
- [vSphere Storage guide](#)
- [vSphere Resource Management Guide](#)
- vSphere Client / vSphere Web Client

Section 4 – Upgrade a vSphere Deployment to 6.x

Objective 4.1 – Perform ESXi Host and Virtual Machine Upgrades

Knowledge

- Configure download source(s)
- Setup UMDS to setup download repository
- Import ESXi images
- Create Baselines and/or Baseline groups
- Attach Baselines to vSphere objects
- Scan vSphere objects
- Stage patches & Extensions
- Remediate an object
- Upgrade a vSphere Distributed Switch
- Upgrade VMware Tools
- Upgrade Virtual Machine hardware
- Upgrade an ESXi Host using vCenter Update Manager
- Stage multiple ESXi Host upgrades
- Align appropriate baselines with target inventory objects.

Tools

- [vSphere Upgrade Guide](#)
- [vSphere Virtual Machine Administration Guide](#)
- vSphere Client / vSphere Web Client

Objective 4.2 – Perform vCenter Server Upgrades

Knowledge

- Compare the methods of upgrading vCenter Server
- Backup vCenter Server database, configuration and certificate datastore
- Perform update as prescribed for Appliance or Installable

- Upgrade vCenter Server Appliance (vCSA)
- Given a scenario, determine the upgrade compatibility of an environment
- Determine correct order of steps to upgrade a vSphere implementation

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Upgrade Guide](#)
- [VMware vCenter Server™ 6.0 Deployment Guide](#)
- [Command-Line Installation and Upgrade of VMware vCenter Server Appliance 6.0](#)
- [Command-Line Installation and Upgrade of VMware vCenter Server 6.0 for Windows](#)
- vSphere Client / vSphere Web Client

Section 5 – Administer and Manage vSphere 6.x Resources

Objective 5.1 – Configure Advanced/Multilevel Resource Pools

Knowledge

- Understand/Apply
- Determine the effect of the Expandable Reservation parameter on resource allocation
- Create a resource pool hierarchical structure
- Configure custom resource pool attributes
- Determine how resource pools apply to vApps
- Describe vFlash architecture
- Create/Remove a Resource Pool
- Add/Remove virtual machines from a Resource Pool
- Create/Delete vFlash Resource Pool
- Assign vFlash resources to VMDKs
- Given a scenario, determine appropriate shares, reservations and limits for hierarchical Resource Pools

Tools

- [vSphere Resource Management Guide](#)
- [vSphere Virtual Machine Administration Guide](#)
- [What's New in VMware vSphere® Flash Read Cache®](#)
- vSphere Client / vSphere Web Client

Section 6 – Backup and Recover a vSphere Deployment

Objective 6.1 – Configure and Administer a vSphere Backups/Restore/Replication Solution

Knowledge

- Compare and contrast vSphere Replication compression methods
- Differentiate VMware Data Protection capabilities
- Configure recovery point objective (RPO) for a protected virtual machine
- Explain VMware Data Protection sizing guidelines
- Create/Delete/Consolidate virtual machine snapshots
- Install and Configure VMware Data Protection
- Create a backup job with VMware Data Protection
- Backup/Restore a virtual machine with VMware Data Protection
- Install/Configure/Upgrade vSphere Replication
- Configure VMware Certificate Authority (VMCA) integration with vSphere Replication
- Configure vSphere Replication for Single/Multiple VMs
- Recover a VM using vSphere Replication
- Perform a failback operation using vSphere Replication
- Deploy a pair of vSphere Replication virtual appliances

Tools

- [VMware vSphere® Data Protection™ 6.0](#)
- [vSphere Data Protection Administration Guide](#)
- [VMware vSphere® Data Protection™ Evaluation Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [VMware vSphere Replication Administration](#)
- VDR Data Migration Tool
- VDP Configure Utility
- vSphere Client / vSphere Web Client

Section 7 – Troubleshoot a vSphere Deployment

Objective 7.1 – Troubleshoot vCenter Server, ESXi Hosts, and Virtual Machines

Knowledge

- Monitor status of the vCenter Server service
- Perform basic maintenance of a vCenter Server database
- Monitor status of ESXi management agents
- Determine ESXi Host stability issues and gather diagnostics information
- Monitor ESXi system health
- Locate and analyze vCenter Server and ESXi logs

- Determine the appropriate Command Line Interface (CLI) command for a given troubleshooting task
- Troubleshoot common issues, including:
 - vCenter Server service
 - SSO
 - vCenter Server connectivity
 - Virtual machine resource contention, configuration and operation
 - Platform Services Controller (PSC)
 - Problems with installation
 - VMware Tools installation
 - Fault Tolerant network latency

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Troubleshooting Guide](#)
- [vSphere Virtual Machine Administration Guide](#)
- [vSphere Server and Host Management Guide](#)
- [vSphere Monitoring and Performance Guide](#)
- [vSphere Security Guide](#)
- vSphere Client / vSphere Web Client

Objective 7.2 – Troubleshoot vSphere Storage and Network Issues

Knowledge

- Identify and isolate network and storage resource contention and latency issues
- Monitor networking and storage resources using vROps alerts and all badges
- Verify network and storage configuration
- Verify a given virtual machine is configured with the correct network resources
- Monitor/Troubleshoot Storage Distributed Resource Scheduler (SDRS) issues
- Recognize the impact of network and storage I/O control configurations
- Recognize a connectivity issue caused by a VLAN/PVLAN
- Troubleshoot common issues with:
 - Storage and network
 - Virtual switch and port group configuration
 - Physical network adapter configuration
 - VMFS metadata consistency

Tools

- [vSphere Networking Guide](#)
- [vSphere Storage Guide](#)

- [vSphere Troubleshooting Guide](#)
- [vSphere Server and Host Management Guide](#)
- vSphere Client / vSphere Web Client

Objective 7.3 – Troubleshoot vSphere Upgrades

Knowledge

- Collect upgrade diagnostic information
- Recognize common upgrade issues with vCenter Server and vCenter Server Appliance
- Create/Locate/Analyze VMware log bundles
- Determine alternative methods to upgrade ESXi Hosts in event of failure
- Configure vCenter Server logging options

Tools

- [vSphere Upgrade Guide](#)
- [vSphere Troubleshooting Guide](#)
- vSphere Update Manager Utility
- vSphere Client / vSphere Web Client
- Update Manager Web Client

Objective 7.4 – Troubleshoot and Monitor vSphere Performance

Knowledge

- Monitor CPU and memory usage (including vRealize OM badges and alerts)
- Identify and isolate CPU and memory contention issues
- Recognize impact of using CPU/memory limits, reservations and shares
- Describe and differentiate critical performance metrics
- Describe and differentiate common metrics, including:
 - Memory
 - CPU
 - Network
 - Storage
- Monitor performance through esxtop
- Troubleshoot Enhanced vMotion Compatibility (EVC) issues
- Troubleshoot virtual machine performance with vRealize Operations
- Compare and contrast Overview and Advanced Charts

Tools

- [vSphere Resource Management Guide](#)

- [vSphere Troubleshooting Guide](#)
- [vSphere Monitoring and Performance Guide](#)
- [vCenter Operations Manager Getting Started Guide \(vSphere UI\)](#)
- vSphere Client / vSphere Web Client

Objective 7.5 – Troubleshoot HA and DRS Configurations and Fault Tolerance

Knowledge

- Troubleshoot issues with:
 - DRS workload balancing
 - HA failover/redundancy, capacity and network configuration
 - HA/DRS cluster configuration
 - vMotion/Storage vMotion configuration and/or migration
 - Fault Tolerance configuration and failover issues
- Explain the DRS Resource Distribution Graph and Target/Current Host Load Deviation
- Explain vMotion Resource Maps

Tools

- [vSphere Resource Management Guide](#)
- [vSphere Monitoring and Performance Guide](#)
- [vSphere Installation and Setup Guide](#)
- [vSphere Troubleshooting Guide](#)
- [vSphere Availability Guide](#)
- vSphere Client / vSphere Web Client

Section 8 – Deploy and Consolidate vSphere Data Center

Objective 8.1 – Deploy ESXi Hosts Using Auto deploy

Knowledge

- Describe the components and architecture of an Auto Deploy environment
- Use Auto Deploy Image Builder and PowerCLI scripts
- Implement Host Profiles with an Auto Deploy of an ESXi Host
- Install and configure Auto Deploy
- Understand PowerCLI cmdlets for Auto Deploy
- Deploy multiple ESXi Hosts using Auto Deploy
- Given a scenario, explain the Auto Deploy deployment model needed to meet a business requirement

Tools

- [vSphere Installation and Setup Guide](#)
- vSphere Client / vSphere Web Client
- Direct Console User Interface (DCUI)

Objective 8.2 – Customize Host Profile Settings

Knowledge

- Edit answer file to customize ESXi Host settings
- Modify and apply a storage path selection plugin (PSP) to a device using host profiles
- Modify and apply switch configurations across multiple hosts using a Host Profile
- Create/Edit/Remove a Host Profile from an ESXi Host
- Import/Export a Host Profile
- Attach and apply a Host Profile to ESXi Hosts in a cluster
- Perform compliance scanning and remediation of an ESXi Hosts and clusters using Host Profiles
- Enable or disable Host Profile components

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Host Profiles Guide](#)
- vSphere Client / vSphere Web Client

Objective 8.3 – Consolidate Physical Workloads using VMware Converter

Knowledge

- Install vCenter Converter standalone instance
- Convert physical workloads using vCenter Converter
- Modify server resources during conversion
- Interpret and correct errors during conversion
- Deploy a physical host as a virtual machine using vCenter Converter
- Collect diagnostic information during conversion operation
- Resize partitions during the conversion process
- Given a scenario, determine which virtual disk format to use

Tools

- [vSphere Installation and Setup Guide](#)
- [VMware vCenter Converter Standalone Guide](#)
- vSphere Client / vSphere Web Client
- VMware vCenter Converter Standalone Client

Section 9 – Configure and Administer vSphere Availability Solutions

Objective 9.1 – Configure Advanced vSphere HA Features

Knowledge

- Modify vSphere HA advanced cluster settings
- Configure a network for use with HA heartbeats
- Apply an admission control policy for HA
- Enable/disable advanced vSphere HA settings
- Configure different heartbeat datastores for an HA cluster
- Apply virtual machine monitoring for a cluster
- Configure Virtual Machine Component Protection (VMCP) settings
- Implement vSphere HA on a Virtual SAN cluster
- Explain how vSphere HA communicates with Distributed Resource Scheduler and Distributed Power Management

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Availability Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [vSphere Administration with the vSphere Client Guide](#)
- vSphere Client / vSphere Web Client

Objective 9.2 – Configure Advanced vSphere DRS Features

Knowledge

- Configure VM-Host affinity/anti-affinity rules
- Configure VM-VM affinity/anti-affinity rules
- Add/remove Host DRS Group
- Add/remove virtual machine DRS Group
- Enable/disable Distributed Resource Scheduler (DRS) affinity rules
- Configure the proper Distributed Resource Scheduler (DRS) automation level based on a set of business requirements
- Explain how DRS affinity rules effect virtual machine placement

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Administration with the vSphere Client Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [vSphere Resource Management](#)
- vSphere Client / vSphere Web Client

Section 10 – Administer and Manage vSphere Virtual Machines

Objective 10.1 – Configure Advanced vSphere Virtual Machine Settings

Knowledge

- Determine how using a shared USB device impacts the environment
- Configure virtual machines for vGPUs, DirectPath I/O and SR-IOV
- Configure virtual machines for multicore vCPUs
- Differentiate virtual machine configuration settings
- Interpret virtual machine configuration files (.vmx) settings
- Enable/disable advanced virtual machine settings

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Administration with the vSphere Client Guide](#)
- [vSphere Virtual Machine Administration Guide](#)
- vSphere Client / vSphere Web Client

Objective 10.2 – Create and Manage a Multi-site Content Library

Knowledge

- Publish a content catalog
- Subscribe to a published catalog
- Determine which privileges are required to globally manage a content catalog
- Compare the functionality of Automatic sync and On-Demand sync
- Configure Content Library to work across sites
- Configure Content Library authentication
- Set/configure Content Library roles
- Add/remove Content Libraries

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Administration with the vSphere Client Guide](#)
- [What's New in the VMware vSphere® 6.0 Platform](#)
- [vSphere Virtual Machine Administration Guide](#)
- vSphere Client / vSphere Web Client

Objective 10.3 – Configure and Maintain a vCloud Air Connection

Knowledge

- Create a VPN connection between vCloud Air and an on-premise site
- Deploy a virtual machine using vCloud Air
- Migrate a virtual machine to vCloud Air
- Verify VPN connection configuration to vCloud Air
- Configure vCenter Server connection to vCloud Air
- Configure replicated objects in vCloud Air Disaster Recovery service
- Given a scenario, determine the required settings for virtual machines deployed in vCloud Air

Tools

- [vSphere Installation and Setup Guide](#)
- [vSphere Administration with the vSphere Client Guide](#)
- [vSphere Networking Guide](#)
- [VMware vCloud Air – Disaster Recovery User’s Guide](#)
- vSphere Client / vSphere Web Client

3. Additional Resources

3.1 Practice Exam

VMware provides a Practice exam for the VCP6-DCV Exam. The Practice exam contains sample questions, along with explanation for incorrect responses. The Practice exam presents 25 questions, drawn from a larger pool. The Practice exam pass score is set to 100%, and a candidate can retake the Practice exam as many times as desired until the 100% score is achieved. Please be advised that the pass score for the Practice exam is unrelated to the pass score for the actual exam.

The Practice exam is located at: TBD

3.2 VCP Community

VMware provides an online community for VCP candidates. This community contains valuable information from other candidates and senior VCPs, and is moderated by VMware certification staff. The community is located at: <http://communities.vmware.com/community/vmtn/certedu/certification/vcp>

3.3 Test Driving a VMware vSphere environment

VMware provides Hands-On Labs for VMware vSphere technologies. These labs provide an environment where you can work with the products covered in this exam. The labs can be accessed here: <https://my.vmware.com/web/vmware/evalcenter?p=vsphere-hol>.

Version	Date	Change Notes
1.0	2015-03-24	Initial creation of Exam Preparation Guide
1.1	2015-04-06	Removed Objective 9.3 as AppHA is EOA effective with the vSphere 6 release
1.2	2015-04-16	Added Test Drive HOL section 3.3
1.3	2015-04-27	Remove Objective 2.3 (subsumed in Objective 2.1)
1.4	2015-07-21	Added links for vCloud Air/Connector to Objective 10.3
1.5	2015-08-05	Final Live Reivew