



## VMware Certified Professional - Data Center Virtualization VCP-DCV





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From IPRULERS improve your credibility and increase value to your organization by becoming VCP-DCV 2024 certified. During this course you will learn advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you configure and optimize the VMware vSphere8.x features that build a foundation for a truly scalable infrastructure, and this course from IPRulers to discuss when and where these features have the greatest effect. Attend this course to deepen your understanding of vSphere and learn how its advanced features and controls can benefit your organization. You will also get intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere8, which includes VMware ESXi and VMware vCenter Server 8. During this course you will be prepared to administer a vSphere infrastructure for an organization of any size. This course is the foundation for most of the other VMware technologies in the software-defined data center.

This industry-recognized VMware Professional vSphere 8.0 certification validates that an individual can implement, manage, and troubleshoot a vSphere V8.0 infrastructure, using best practices to provide a powerful, flexible, and secure foundation for business agility that can accelerate the transformation to cloud computing. IPRulers is the new face of data center virtualization Certification and Training in Dubai, UAE, which provides both online and classroom-based training in the latest cutting-edge technologies in the IT infrastructure security and networking portfolio. With grouped as well as one-to-one classes and online tutorials that could be scheduled for weekdays or weekends in accordance to the students' choice, IP Rulers is fast becoming a leading name in Dubai for VMware VCP-DCV Certification and other IT certifications.

Required Exam: **VMware Certified Professional 8 — Data Center Virtualization (2v0-21.23)**

The VCP-DCV 2024 certification validates your skills to implement, manage, and troubleshoot a vSphere V8.0 infrastructure. Using best practices, to provide a powerful, flexible, and secure foundation for business agility – that can accelerate the transformation to cloud computing.



# VMware Certified Professional- Data Center Virtualization

## Benefits

- Potentially step into more senior technical roles like Data center virtualization Architect.
- Gain hands-on experience implementing DC virtualization technologies and learn best practices using VMware solutions
- Qualify for professional and expert-level security job roles
- You get credited with a high value certification from VMware
- You can qualify for the professional Virtualization certifications of VMware
- You get the authority to link the VMware Digital Badge to all your social media profiles
- Gain leading-edge skills for high-demand responsibilities focused on virtualization

## Target Audience:

- IT professionals who work their IT infrastructure services on VMware
- Also intended for people who work with virtualization solutions and services.
- Candidates who are looking to validate their knowledge level in Virtualization Administration
- System administrators
- System engineer
- IT Consultant

## Prerequisite:

### This course has the following prerequisites:

System administration experience on Microsoft Windows or Linux operating systems



# Course Outline

01

## Architectures and Technologies

- 1.1** Identify the pre-requisites and components for a vSphere implementation
- 1.2** Describe vCenter Server topology
- 1.3** Identify and differentiate storage access protocols for vSphere (NFS, iSCSI, SAN, etc.)
  - 1.3.1 – Describe storage datastore types for vSphere
  - 1.3.2 – Explain the importance of advanced storage configuration (vSphere Storage APIs for Storage Awareness (VASA), vSphere Storage APIs Array Integration (VAAI), etc.)
  - 1.3.3 – Describe storage policies
  - 1.3.4 – Describe basic storage concepts in K8s, vSAN and vSphere Virtual Volumes (vVols)
- 1.4** Differentiate between vSphere Network I/O Control (NIOC) and vSphere Storage I/O Control (SIOC)
- 1.5** Describe instant clone architecture and use cases
- 1.6** Describe ESXi cluster concepts
  - 1.6.1 – Describe Distributed Resource Scheduler (DRS)
  - 1.6.2 – Describe vSphere Enhanced vMotion Compatibility (EVC)
  - 1.6.3 – Describe how Distributed Resource Scheduler (DRS) scores virtual machines
  - 1.6.4 – Describe vSphere High Availability
  - 1.6.5 – Describe datastore clusters
- 1.7** Identify vSphere distributed switch and vSphere standard switch capabilities
  - 1.7.1 – Describe VMkernel networking
  - 1.7.2 – Manage networking on multiple hosts with vSphere distributed switch
  - 1.7.3 – Describe networking policies
  - 1.7.4 – Manage Network I/O Control (NIOC) on a vSphere distributed switch
- 1.8** Describe vSphere Lifecycle Manager concepts (baselines, cluster images, etc.)
- 1.9** Describe the basics of vSAN as primary storage
  - 1.9.1 – Identify basic vSAN requirements (networking, disk count + type)
- 1.10** Describe the vSphere Trust Authority architecture
- 1.11** Explain Software Guard Extensions (SGX)





02

## VMware Products and Solutions

- 2.1 Describe the role of vSphere in the software-defined data center (SDDC)
- 2.2 Identify use cases for vCloud Foundation
- 2.3 Identify migration options
- 2.4 Identify DR use cases
- 2.5 Describe vSphere integration with VMware Skyline

03

## Planning and Designing –

There are no testable objectives for this section.

04

## Installing, Configuring, and Setup

- 4.1 Describe single sign-on (SSO) deployment topology
  - 4.1.1 – Configure a single sign-on (SSO) domain
  - 4.1.2 – Join an existing single sign-on (SSO) domain
- 4.2 Configure VSS advanced virtual networking options
- 4.3 Set up identity sources
  - 4.3.1 – Configure Identity Federation
  - 4.3.2 Configure Lightweight Directory Access Protocol (LDAP) integration
  - 4.3.3 – Configure Active Directory integration
- 4.4 Deploy and configure vCenter Server Appliance
- 4.5 Create and configure VMware High Availability and advanced options (Admission Control, Proactive High Availability, etc.)
- 4.6 Deploy and configure vCenter Server High Availability
- 4.7 Set up content library
- 4.8 Configure vCenter Server file-based backup
- 4.9 Analyze basic log output from vSphere products
- 4.10 Configure vSphere Trust Authority
- 4.11 Configure vSphere certificates
  - 4.11.1 – Describe Enterprise PKIs role for SSL certificates
- 4.12 Configure vSphere Lifecycle Manager/VMware Update Manager (VUM)
- 4.13 Securely Boot ESXi hosts
- 4.14 Configure different network stacks
- 4.15 Configure Host Profiles
- 4.16 Identify boot options
  - 4.16.1 – Configure Quick Boot



05

## Performance-tuning, Optimization, Upgrades

- 5.1** Identify resource pools use cases
  - 5.1.1 – Explain shares, limits and reservations (resource management)
- 5.2** Monitor resources of vCenter Server Appliance and vSphere environment
- 5.3** Identify and use tools for performance monitoring
- 5.4** Configure Network I/O Control (NIOC)
- 5.5** Configure Storage I/O Control (SIOC)
- 5.6** Explain the performance impact of maintaining virtual machine snapshots
- 5.7** Plan for upgrading various vSphere components

06

## Troubleshooting and Repairing

07

## Administrative and Operational Tasks

- 7.1** Create and manage virtual machine snapshots
- 7.2** Create virtual machines using different methods (Open Virtual Machine Format (OVF) templates, content library, etc.)
- 7.3** Manage virtual machines
- 7.4** Manage storage (datastores, storage policies, etc.)
  - 7.4.1 – Configure and modify datastores (expand/upgrade existing datastore, etc.)
  - 7.4.2 – Create virtual machine storage policies
  - 7.4.3 – Configure storage cluster options
- 7.5** Create Distributed Resource Scheduler (DRS) affinity and anti-affinity rules for common use cases
- 7.6** Configure and perform different types of migrations
- 7.7** Configure role-based user management
- 7.8** Configure and manage the options for securing a vSphere environment (certificates, virtual machine encryption, virtual Trusted Platform Module, lock-down mode, virtualization-based security, etc.)
- 7.9** Configure and manage host profiles
- 7.10** Utilize baselines to perform updates and upgrades
- 7.11** Utilize vSphere Lifecycle Manager
  - 7.11.1 – Describe Firmware upgrades for ESXi
  - 7.11.2 – Describe ESXi updates
  - 7.11.3 – Describe component and driver updates for ESXi
  - 7.11.4 – Describe hardware compatibility check
  - 7.11.5 – Describe ESXi cluster image export functionality
- 7.12** Configure alarms







## Mode of Training

### 01 Classroom



Go old-school. Make friends and have fun, just like elementary grades. Follow lectures, turn in assignments and appear for exams in campus-style!

### 02 Online



Sit in the comfort of your home as you move through the course. Instructors will guide you in predetermined sessions.

### 03 Corporate



Lectures and hands-on training for office employees in the comfort of their own office. Sponsored by employers to push up their employees above the market competence.

### 04 One-to-one



An instructor will train you in private – without any external intrusion. Ideal if you want to progress on your own. Schedule your classes according to your own timeline as you advance

### 05 Fast Track



Go fast track – speed through the course, whether it be alone, or online, in groups, on an accelerated timescale, to give the icing on the cake.

### 06 Private Group



You and your friends like to be together in a class, but without any outsiders? A way to combat shyness, with the comfort your friend-circle.





**THANK YOU**