

VMware vSphere 8.x Advanced Design

Exam Details (Last Updated: 6/20/2023)

The VMware vSphere 8.x Advanced Design exam (3V0-21.23) which leads to VMware Certified Advanced Professional - Data Center Virtualization Design 2023 (VCAP-DCV Design 2023) certification is a 60-item exam, with a passing score of 300 using a scaled method. Candidates are given an appointment time of 145 minutes, which includes adequate time to complete the exam for non-native English speakers. This exam contains scenario-based single-selection and multiple-selection multiple-choice items. Additional item types may be used but will appear less frequently than those previously mentioned.

Exam Delivery

This is a proctored exam delivered through Pearson VUE. For more information, visit the [Pearson VUE website](#).

Certification Information

For details and a complete list of requirements and recommendations for attainment, please reference the [VMware Learning Services – Certification website](#).

Minimally Qualified Candidate

The candidate can design and deploy a vSphere 8.x environment but may occasionally require assistance with carrying out the more complex tasks. The candidate can apply most design principles to develop a vSphere 8.x conceptual model given a set of customer requirements, determine most of the business and technical (formerly non-functional and functional) requirements needed to create a logical design, and architect a physical design using these elements; but may occasionally need to research these topics. The candidate has a fundamental understanding of compute, storage, networking and security, design principles, capacity planning, disaster recovery, scalability, interoperability, and compatibility. The candidate possesses most of the knowledge captured in the exam sections (blueprint).

Exam Sections

VMware exam blueprint sections are now standardized to the five sections below, some of which may NOT be included in the final exam blueprint depending on the exam objectives.

Section 1 – IT Architectures, Technologies, Standards

Section 2 – VMware Solution

Section 3 – Plan and Design the VMware Solution

Section 4 – Install, Configure, Administrate the VMware Solution

Section 5 – Troubleshoot and Optimize the VMware Solution

If a section does not have testable objectives in this version of the exam, it will be noted below, accordingly. The objective numbering may be referenced in your score report at the end of your testing event for further preparation should a retake of the exam be necessary.

Sections Included in this Exam

Section 1 – IT Architectures, Technologies, Standards

Objective 1.1 – Differentiate between business and technical requirements (formerly non-functional and functional).

Objective 1.2 – Differentiate conceptual, logical, and physical design.

Objective 1.3 – Differentiate between Availability, Manageability, Performance, Recoverability and Security (AMPRS).

Section 2 – VMware Products and Solutions

Objective 2.1 – Describe VMware Cloud Foundation architecture.

Objective 2.1.1 – Describe the components of a VMware Cloud Foundation architecture.

Objective 2.1.2 – Describe VMware Cloud Foundation benefits.

Objective 2.1.3 – Identify VMware Cloud Foundations use cases.

Objective 2.2 – Describe VMware Validated Solutions architecture.

Objective 2.2.1 – Describe VMware Validated Solutions benefits.

Objective 2.2.2 – Identify VMware Validated Solutions use cases.

Section 3 – Plan and Design the VMware Solution

Objective 3.1 – Gather and analyze business objectives and requirements.

Objective 3.1.1 – Identify business factors that affect designs.

Objective 3.1.2 – Define customer business objectives.

Objective 3.1.3 – Gather and analyze business, application, and operational requirements.

Objective 3.1.4 – Define business requirements, constraints, assumptions, risks, risks mitigation, and SLOs (Service Level Objectives).

Objective 3.1.5 – Gather and analyze business and technical (formerly non-functional and functional) requirements.

Objective 3.2 – Create a conceptual model.

Objective 3.2.1 – Use a systematic method to evaluate and document the conceptual model.

Objective 3.2.2 – Create a conceptual model from a set of business objectives.

Objective 3.3 – Create a logical design.

- Objective 3.3.1 – Recognize key information required for logical design decisions.
- Objective 3.3.2 – Identify design decision options.
- Objective 3.3.3 – Based on a given scenario, identify the design decision(s) to support within a vSphere logical design.
- Objective 3.3.4 – Define design impacts, risks, and risk mitigation options.
- Objective 3.3.5 – Create a logical design from a conceptual design.
- Objective 3.4 – Create a physical design.
 - Objective 3.4.1 – Recognize key information required in physical design decisions.
 - Objective 3.4.2 – Create a physical design from a logical design.
- Objective 3.5 – Design for manageability: capacity planning
 - Objective 3.5.1 – Make design decisions for capacity planning.
 - Objective 3.5.1.1 – Make capacity planning design decisions for vSphere that meets the business requirements.
 - Objective 3.5.1.2 – Define a capacity planning strategy that meets the business requirements.
- Objective 3.6 – Design for manageability: scalability
 - Objective 3.6.1 – Make scalability design decisions that meets the business requirements.
 - Objective 3.6.2 – Make design decisions to scale storage types.
- Objective 3.7 – Design for manageability: lifecycle management
 - Objective 3.7.1 – Make lifecycle management design decisions that meets the business requirements.
- Objective 3.8 – Design for availability
 - Objective 3.8.1 – Make design decisions to meet SLO availability requirements.
 - Objective 3.8.1.1 – Make design decisions for compute.
 - Objective 3.8.1.2 – Make design decisions for storage.
 - Objective 3.8.1.3 – Make design decisions for networking.
 - Objective 3.8.1.4 – Make design decisions to choose a high availability option for vCenter Server.
- Objective 3.9 – Design for performance
 - Objective 3.9.1 – Make design decisions to meet SLO performance requirements.
 - Objective 3.9.1.1 – Identify design decision options for increasing storage performance.
 - Objective 3.9.1.2 – Identify design decision options for increasing network performance.
 - Objective 3.9.1.3 – Identify design decision options for increasing virtual machine performance.
- Objective 3.10 – Design for security
 - Objective 3.10.1 – Make security design decisions that meet business requirements.
- Objective 3.11 – Design for recoverability
 - Objective 3.11.1 – Make recoverability design decisions that meet the SLO recoverability requirements.

Section 4 – Install, Configure, Administrate the VMware Solution

Not Applicable

Section 5 – Troubleshoot and Optimize the VMware Solution

Not Applicable

Courses used to develop this exam and strongly recommended to you for exam preparation:

[VMware vSphere: Design \[V8\]](#)

Certification Requirements

[VCAP-DCV Design 2023](#)

References

In addition to the recommended course, item writers used the following resources for information when writing exam questions. It is recommended that you study the reference content as you prepare to take the exam, in addition to the recommended training.

Name	Topics
https://docs.vmware.com/	VMware vSphere Product Documentation; VMware Cloud Foundation Product Documentation; VMware Tools Product Documentation
http://kb.vmware.com/	Migrating VMFS 5 datastore to VMFS 6 datastore (2147824); Installing and upgrading the latest version of VMware Tools on existing hosts (2129825); VMware Multipathing policies in ESXi/ESX (1011340); SSH Daemon Sandboxing VOB in vSphere 8.0 release (87386);
http://core.vmware.com/	Frequently Asked Questions (FAQ) - VMware Validated Solutions; VMware vSphere 8 Virtual Machine Security Parameters; What's New in vSphere 8?
https://www.vmware.com/techpapers.html	Performance Best Practices for VMware vSphere 8.0; VMware vSphere 8.0 Virtual Topology
*vSphere content in this exam is based on version 8.0. Review all 8.0 release notes and material for features and function.	

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