

VMware Certified Advanced Professional 6.5-Data Center Virtualization Design Exam (3V0-624)

Exam Preparation Guide

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Minimally Qualified Candidate

The Minimally Qualified Candidate (MQC) is a conceptualization of the certification candidate that possesses the minimum knowledge, skills, experience, and competence to just meet our expectations of a credentialed individual.

A minimally qualified candidate (MQC) achieving the VMware Certified Advanced Professional in Data Center Virtualization Design certification is capable of developing a conceptual design given a set of customer requirements, determining the functional requirements needed to create a logical design, and architecting a physical design using these elements.

Candidates possess an advanced knowledge of end-user computing environments and components, enabling them to recommend and design VMware solutions to meet specific goals and requirements. The successful candidate will likely hold one or more industry-recognized general IT certifications or accreditation. The MQC must have a VMware Certified Professional certification and should have all the knowledge contained in the VCAP6.5-DCV Design exam blueprint listed below.

Exam Sections

Section 1. Create a vSphere 6.5 Conceptual Design.

- Objective 1.1 – Gather and analyze business requirements.
- Objective 1.2 – Gather and analyze application requirements.
- Objective 1.3 – Determine risks, requirements, constraints, and assumptions.

Section 2. Create a vSphere 6.x Logical Design from an Existing Conceptual Design.

- Objective 2.1 – Map business requirements to a vSphere 6.x logical design.
- Objective 2.2 – Map service dependencies.
- Objective 2.3 – Build availability requirements into a vSphere 6.x logical design.
- Objective 2.4 – Build manageability requirements into a vSphere 6.x logical design.
- Objective 2.5 – Build performance requirements into a vSphere 6.x logical design.
- Objective 2.6 – Build recoverability requirements into a vSphere 6.x logical design.
- Objective 2.7 – Build security requirements into a vSphere 6.x logical design.

Section 3. Create a vSphere 6.x Physical Design from an Existing Logical Design.

- Objective 3.1 – Transition from a logical design to a vSphere 6.x physical design.
- Objective 3.2 – Create a vSphere 6.x physical network design from an existing logical design.
- Objective 3.3 – Create a vSphere 6.x physical storage design from an existing logical design.
- Objective 3.4 – Determine appropriate computer resources for a vSphere 6.x physical design.
- Objective 3.5 – Determine virtual machine configuration for a vSphere 6.x physical design.
- Objective 3.6 – Determine data center management options for a vSphere 6.x physical design.

Recommended Course

vSphere: Design Workshop [V6.5]

Sample Questions

Sample Question 1

A company wants to virtualize the SAP (Business Application) for the first time. The company has to ensure high availability for its virtualized workloads, so it has explored several vSphere features and would like to review the findings.

Which two features improve SAP's availability and recoverability? (Choose two.)

- A. vSphere High Availability
- B. Single Root I/O Virtualization (SR-IOV)
- C. VMFS file system
- D. VMware vSphere vMotion

Sample Question 2

A latency-sensitive, legacy business-critical application must be migrated to a vSphere cluster.

- The application does NOT support application-level failovers.
- The application owner would like to leverage virtualization features like high availability and vMotion to increase availability during failures and maintenance operations.

Which two performance optimizations can be enabled in this scenario? (Choose two.)

- A. Enable the host and virtual machine for SR-IOV.
- B. Enable the host and virtual machine for appropriate network buffer sizes.
- C. Enable the host and virtual machine for Uniform Memory Access (UMA).
- D. Enable the host and virtual machine for SplitTx and SplitRx.

Sample Question 3

During a recent maintenance window, a customer experienced a hardware failure of an ESXi host. As a result of degraded capacity, vSphere HA was unable to restart a number of virtual machines (VMs).

Which sizing strategy will allow the cluster to maintain the ability for HA to restart VMs during maintenance windows while keeping hardware resources at a minimum?

- A. N-1
- B. N+1
- C. N+2
- D. N=3

Sample Question 4

A network administrator has specified that Link Layer Discovery Protocol (LLDP) must be supported in his company's vSphere network design.

Which type of virtual switch can be used?

- A. vSphere Standard Switch
- B. Open vSwitch
- C. vSphere Distributed Switch
- D. Cisco Nexus 1000v Switch

Sample Question 5

A solution architect has been tasked with designing a new environment that meets the needs of a growing company, and has obtained this information:

- Blade servers are the current required standard and are configured with 2x12 core CPUs, 384GB of memory, no HDD, and a single dual port 10Gb Converged Network Adapter.
- Based on the server's Mean Time Between Failure, the design must accommodate a single blade failure without affecting performance.
- The current delivery time for the servers is 90 days.
- The Dell storage is currently 100% configured, utilizing Raid5 volumes of which 40% of the array is currently free space.
- The current Data Domain backup solution has been determined to have enough space to accommodate the additional virtual machines that were sized according to the application team's requirements and the backup team's retention policies.

Based on this information, which two statements are risks for the new design? (Choose two.)

- A. The server delivery date may be more than 90 days.
- B. Blade servers will not perform as optimally as rackmount servers.
- C. The retention policy for backups meets company requirements.
- D. The failure if a second disk during a diskgroup rebuild will result in data loss.

Sample Question 6

A customer has four VLANs: Management, vMotion, iSCSI, and Application.

- The network team requires each type of traffic to be on its own VLAN.
- The security team requires Layer 3 connectivity to each network for monitoring.

Which two settings must be configured? (Choose two.)

- A. Multiple NICs
- B. Custom TCP/IP Stack
- C. vMotion TCP/IP Stack
- D. One VMkernel port per network

Sample Question 7

A customer requires Windows Server Failover Clustering between physical and virtual servers.

- The environment design of the storage must meet this requirement.
- The customer wants to use storage as efficiently as possible, including granularity, QoS, VAAI, etc.

Which type of storage for a physical RDM proxy file can be used?

- A. NFS
- B. VMFS
- C. vSAN
- D. VVol

Sample Question 8

A company is deploying a modern video news-streaming application.

- The application is capable of scaling (expanding and collapsing) its streaming nodes on demand.
- To host the application, the company decided to implement a new VMware cluster with vSphere 6.5.
- vMotion is not supported by the application.

Using VMware-recommended best practices, where should the company place the swap file?

- A. On replicated datastores
- B. On local solid state drives
- C. On thin-provisioned LUNs
- D. On hardware-encrypted drives

Sample Question 9

A solutions architect is building a new data center at a remote site for a company.

- All of the necessary virtual machine templates are already stored in a Content Library at the main office.
- The company also needs the ability to rapidly deploy virtual machines throughout the next year in this site.

Which vCenter Server deployment strategy will meet these requirements?

- A. The new vCenter Server should manually subscribe to the Content Library at the main site and download contents only when needed.
- B. The new vCenter Server should join the existing SSO domain, automatically subscribe to the published Content Library, and download all of the contents.
- C. The new vCenter Server should manually subscribe to the Content Library at the main site and download all the contents of the published library immediately.
- D. The new vCenter Server should join the existing SSO domain, automatically subscribe to the published Content Library, and download the contents only when needed.

Sample Question 10

A company is consolidating its IT operations efforts by moving the Finance, IT, and QA departments towards a self-service environment, following SDDC best practices.

- All departments have different priorities and expectations for uptime of the required infrastructure and applications.
- Project stakeholders are still discussing final approvals for the budget with the CFO.
- To drive down the operating cost of the environment, only blade servers will implement this project.
- To ensure business continuity, a colocation provider was chosen to fail over virtual machines.
- The implementation of the project will follow a public reference architecture provided by VMware.

Which is the risk in this scenario?

- A. The chosen architecture is sufficient.
- B. All departments demand different SLAs.
- C. Final budget approvals are being discussed.
- D. The environment will be shared by several departments.

Answer Key: 1-A and D; 2-B and D; 3-C; 4-C; 5-A and D; 6-B and D; 7-B; 8-B; 9-C; 10-C.

References

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[Best Practices for VMware vSphere Performance](#)

[VMware Sphere Availability](#)

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[VMware vSphere Storage](#)

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[Difference between Conceptual, Logical, and Physical Design](#)

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[VMware TCO Comparison Calculator](#)

[VMware End-User Computing Business Case Calculator](#)

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