

## VMware vSphere: Design [V8]

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### Course Summary

#### Description

This three-day course equips you with the knowledge, skills, and abilities to design a VMware vSphere 8 virtual infrastructure. You follow a proven approach to design a virtualization solution that ensures availability, manageability, performance, recoverability, and security. The approach presented follows VMware best practices. This course discusses the benefits and risks of available design alternatives and provides information to support making sound design decisions.

#### Objectives

At the end of this course, students will be able to:

- Create a vSphere design given a case study
- Identify and assess the business objectives of the vSphere environment
- Identify business requirements, constraints, assumptions, and risks, for all layers in the vSphere environment
- Apply a framework to a design
- Analyze design choices for vCenter, ESXi, storage, networking, vSphere clusters, and virtual machines
- Identify design decisions to ensure manageability, which include scalability, capacity planning and lifecycle management
- Identify design decisions to ensure that the vSphere environment is highly available
- Identify design decisions to ensure that the vSphere environment performs well
- Identify design decisions to ensure that the vSphere environment is secure
- Identify design decisions to ensure that the vSphere environment can recover from data loss or disaster

#### Topics

- Course Introduction
- Infrastructure Assessment
- Designing for Manageability: Capacity Planning
- Designing for Manageability: Scalability
- Designing for Manageability: Lifecycle Management
- Designing for Availability
- Designing for Performance
- Designing for Security
- Designing for Recoverability

#### Audience

This course is designed for system integrators, consultants, and solution architects.

#### Prerequisites

This course requires completion of the one of the following:

- VMware vSphere: Install, Configure, Manage
- VMware vSphere: Operate, Scale, and Secure

#### Duration

Three days

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### Course Outline

#### *I. Course Introduction*

- A. Introductions and course logistics
- B. Course objectives

#### *II. Infrastructure Assessment*

- A. Describe various design framework principles
- B. Follow a proven process to design a virtualization solution
- C. Define customer business objectives and requirements
- D. Use a systematic method to evaluate and document a conceptual model
- E. Create a logical design from a conceptual model
- F. Recognize key information contained in the physical design

#### *III. Designing for Manageability: Capacity Planning*

- A. Make capacity planning design decisions that adhere to business requirements
- B. Design capacity planning strategies that meet the needs of the vSphere environment and follow VMware best practices
- C. Calculate compute and storage requirements for the VMs in the vSphere environment

#### *IV. Designing for Manageability: Scalability*

- A. Make scalability design decisions that adhere to business requirements
- B. Design scalability strategies that meet the needs of the vSphere environment and follow VMware best practices

#### *V. Designing for Manageability: Lifecycle Management*

- A. Make lifecycle management design decisions that adhere to business requirements
- B. Design lifecycle management strategies that meet the needs of the vSphere environment and follow VMware best practices

#### *VI. Designing for Availability*

- A. Make availability design decisions that adhere to business requirements
- B. Design availability strategies that meet the needs of the vSphere environment and follow VMware best practices

#### *VII. Designing for Performance*

- A. Make performance design decisions that adhere to business requirements
- B. Design performance strategies that meet the needs of the vSphere environment and follow VMware best practices

#### *VIII. Designing for Security*

- A. Make security design decisions that adhere to business requirements
- B. Design security strategies that meet the needs of the vSphere environment and follow VMware best practices

#### *IX. Designing for Recoverability*

- A. Make recoverability design decisions that adhere to business requirements
- B. Design recoverability strategies that meet the needs of the vSphere environment and follow VMware best practices