HL981S VMware vCloud: Design Best Practices

Course Summary

Description
This course is designed to guide students through the decision points and policy choices available for designing and implementing a VMware vCloud® environment. Students will learn to appreciate the effects of design choices in VMware vSphere®, VMware vCloud® Director™, VMware® vCenter™ Chargeback™, and the VMware® vShield Edge™ capability that is included with vCloud Director. The course culminates in a comprehensive workshop on VMware cloud design. This course is 60 percent lecture and 40 case-study activities.

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

- Understand and apply the VMware® Architecture Framework to a design
- Design a storage solution to use vSphere in an enterprise
- Design a network to use vSphere in an enterprise
- Design compute resources for an enterprise
- Design virtual machines to run applications in a virtual infrastructure
- Design a virtual datacenter for an enterprise
- Incorporate management and monitoring features in the design
- Identify design goals, requirements, constraints, and risks
- Identify useful information for making design decisions
- Recognize and analyze best-practice recommendations
- Analyze alternative design choices

Topics
- Course Introduction
- Design Process Overview
- VMware vSphere Storage Design
- VMware vSphere Network Design
- Compute Resources Design
- Virtual Machine Design
- VMware vSphere Virtual Datacenter Design
- Management and Monitoring Design

Audience
VMware pre- and post-sales technical professionals responsible for designing vSphere architectures

Prerequisites
Knowledge of vSphere 5 installation, upgrade, configuration, and administration

Duration
Three days
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Course Outline

I. Course Introduction
   A. Identify the course goals
   B. Identify the course objectives
   C. View the course module outline

II. Design Process Overview
   A. Clarify key terminology
   B. Identify and discuss design guidelines, design approaches, design sessions, design decisions and implications, and create a design framework
   C. Define and describe the VMware Architecture Framework methodology
   D. Identify design tools, including the architecture quality matrix, Information Technology Infrastructure Library v3, and the vSphere technology stack

III. VMware vSphere Storage Design
   A. Identify useful information for making design decisions about virtual and physical storage
   B. Recognize and analyze best-practice recommendations
   C. Analyze alternative storage design choices
   D. Communicate choices and their benefits and risks to the customer
   E. Develop a storage design

IV. VMware vSphere Network Design
   A. Identify useful information for making design decisions about virtual and physical networks
   B. Recognize and analyze best-practice recommendations
   C. Analyze alternative network design choices
   D. Communicate choices and their benefits and risks to the customer
   E. Develop a network design

V. Compute Resources Design
   A. Identify useful information for making design decisions about host CPU and memory
   B. Recognize and analyze best-practice recommendations
   C. Analyze alternative host design choices
   D. Communicate choices and their benefits and risks to the customer
   E. Develop a host design

VI. Virtual Machine Design
   A. Identify useful information for making design decisions about virtual machines
   B. Recognize and analyze best-practice recommendations
   C. Analyze alternative virtual machine design choices
   D. Communicate choices and their benefits and risks to the customer
   E. Develop a virtual machine design

VII. VMware vSphere Virtual Datacenter Design
   A. Identify useful information for making design decisions about virtual datacenters regarding management server and cluster configuration
   B. Recognize and analyze best-practice recommendations
   C. Analyze alternative virtual datacenter design choices
   D. Communicate choices and their benefits and risks to the customer
   E. Develop a virtual datacenter design

VIII. Management and Monitoring Design
   A. Identify useful information for making design decisions about management and monitoring
   B. Recognize and analyze best-practice recommendations
   C. Analyze alternative management and monitoring design choices
   D. Communicate choices and their benefits and risks to the customer
   E. Develop a management and monitoring design