VMware Cloud Foundation: Solution Architecture and Design [9.0]

Duration: 5 Days

Overview

This course explores the architecture and design considerations for an initial deployment of VMware® Cloud Foundation™ (VCF). The course explains the architecture framework and language, as well as design considerations for building, operationalizing, and consuming a VCF deployment. The scope of the course is centered on the core design considerations applicable to a VMware Cloud Foundation deployment in a single site.

Audience

This course is ideal for technical and solution architects and consultants who design enterprise-grade private cloud environments.

Objectives

After completing this course, you should be able to:

- Describe and apply an appropriate design framework
- Apply a design process for gathering requirements, constraints, assumptions and risks
- Understand VMware VCF constructs such as site, fleet and instance
- Understand data center fabric needs to support VCF
- Understand VCF storage and network design options
- Design a single site single fleet deployment of VCF with recommended design options
- Design management and workload domains with appropriate compute and storage resources
- Design a consumption layer leveraging VCF Automation and supervisor
- Understand the day-2 operating model, operations metrics, and reporting needs of VCF
- Understand future opportunities to extend the VCF platform with advanced services

Certifications and related exams

This is the recommended course for the VMware Certified Professional - VMware Cloud Foundation Architect (VCP-VCF Architect) certification

Module 1: Course Introduction
. Introduction and course logistics
. Course objectives

Module 2: Architecture Frameworks and Models
. Architecture frameworks
. Business objectives
. Design models

Module 3: VMware Cloud Foundation Overview
. VCF design blueprints and use cases
. Upgrade overview
. License management overview

Module 4: VCF Fleet and Instance Design
. Sites, Fleets, and instances
. Management and workload domains
. Designing conceptual and logical designs
. VCF Operations platform design

Module 5: Building the Physical Fabric and VCF Networking Design
. Networking fabric design
. VCF networking design

Module 6: Storage and vSAN Essentials
. VCF Storage overview
. Storage design considerations

Module 7: Management Domain
. Management domain design overview
. Management domain design sizing considerations
. Management domain design decisions
. Storage requirements for management workloads
. Networking requirements for management workloads
. Platform-based protection mechanisms

Module 8: Workload Domains

. Workload domain design overview
. Cluster design overview
. Storage requirement for workload domains
. Networking requirements for workload domains
. Security design considerations

Module 9: VCF AMPRS Considerations Summary

. Designing for availability
. Designing for manageability
. Designing for performance
. Designing for recoverability
. Designing for security

Module 10: VCF Consumption Design with VCF Automation and Supervisor

. VCF Automation overview
. VCF Automation tenancy models
. VCF Automation and supervisor components
. VCF Automation and supervisor design considerations

Module 11: Day 2 Operations with VCF

. Day 2 operations overview
. VCF Operations overview and metric/dashboard design
. VCF Operations key metrics for compute, storage, and networks
. VCF Operations for networks overview and design

Module 12: VCF Upgrade Considerations

. VCF upgrade overview
. VCF upgrade key considerations

Module 13: VCF Advanced Services

. Introduction to private AI
. Introduction to VMware live recovery
. Introduction to advanced security