VMWA-49 - VMWARE CLOUD FOUNDATION: SOLUTION ARCHITECTURE AND DESIGN [9.1]

Categoria: **VMware**

INFORMAZIONI SUL CORSO

Durata:	Categoria:	Qualifica Istruttore:	Dedicato a:	Produttore:
5 Giorni	VMware	VMware Certified Instructor	Professionista IT	VMware

OBIETTIVI

By the end of the course, you should be able to meet the following objectives:

-Understand and select the right design blueprints and models based on stated requirements.
-Design instance, management domain, workload domains, cluster layouts, and host specifications.
-Design the three management domain recovery tiers, from component restore to fleet disaster recovery.
-Design for both traditional shared storage (NFS and Fiber Channel) and vSAN storage as part of a VCF solution.
-Design the appropriate network architecture given physical network constraints and stated requirements.
-Design a VCF Automation tenancy model, including Supervisor and VKS-related services.
-Understand the design considerations relating to a Private AI Foundation / Services solution.
-Appreciate physical datacenter design considerations that affect a VCF solution design.
-Apply AMPRS design qualities to all aspects of the VMware Cloud Foundation solution design.

PREREQUISITI

This course has the following prerequisites:

-Working knowledge of vSphere, vCenter, ESX, vSAN and NSX networking.
-Experience with enterprise datacenter operations and solution design.
-Attendance of VMware Cloud Foundation: Build, Manage, Secure and VMware Cloud Foundation: Automate and Operate courses or equivalent experience.

CONTENUTI

Module 1. Introduction

-Explain the value of VCF as an operational cost argument, not a feature list.
-Describe what VCF 9.1 consolidates, and what is still yours to design.
-Differentiate the personas a private cloud serves and the decisions each one drives.
-Describe the five AMPRS qualities and the trade-offs they create.
-Sequence a design decision as requirement, decision, justification and implication.

Module 2. Fleet Designs and Blueprints

-Describe how the Fleet, Instance, Domain, Cluster and Host constructs nest.

-Choose a fleet deployment model and a fleet sizing model from stated requirements.
-Design a fleet from a published blueprint, substituting Design Library models.
-Choose an edge design pattern for a given site count, WAN budget and autonomy requirements.
-Differentiate the three recovery tiers and identify which one answers a failure.

Module 3. Fleet Components

-Size a VCF Operations analytics cluster from an object count and an availability model.
-Choose a License Server model and defend the choice against a named requirement.
-Describe what runs on the VCF Management Services runtime and what stays a separate appliance.
-Differentiate the Simple and High Availability VCFMS models by their failure behavior.
-Design Log Management retention, partitioning and archiving to a stated requirement.
-Place the Identity Broker as a per-Instance service and pick its deployment model.

Module 4. Instance, Domain and Cluster Designs

-Describe the Instance, Domain and Cluster constructs and the related design decisions.
-Design a Management Domain: sizing, storage, networking and the reserves it must hold.
-Place every management component correctly in a first and an additional Instance.
-Choose how many Workload Domains an estate needs and defend each one by what it isolates.
-Choose a cluster model and a vSAN cluster type, then size the host count that follows.
-Explain how a storage policy sets usable capacity and the minimum host count.

Module 5. Consumption

-Identify every path a consumer can take to reach the platform.
-Design a VCF Automation tenancy model from Organizations down to quota.
-Choose between the All Apps and VM Apps Organization models.
-Explain Supervisor activation and associated design decisions.
-Design the substrate a VKS cluster and its related services need.
-Place VCF Operations Orchestrator, Harbor, DSM and Private AI within a solution design.

Module 6. Physical Datacenter Architecture

-Explain the five physical layers comprising a VCF-ready datacenter.
-Size rack power and cooling for mixed VM, container and accelerated AI hosts.
-Design a leaf-spine fabric that meets VCF bandwidth, latency and MTU needs.
-Choose a single-site, multi-site or multi-region fabric based on stated requirements.
-Identify the CPU, memory, NVMe drives and uplinks a ReadyNode must carry.
-Explain how NUMA and the 9.1 Topology Aware Scheduler affect placement.

Module 7. Networking

-Design the VLAN and MTU plan a VCF solution requires, end to end.
-Choose a distributed switch model from the physical adapters you can justify.
-Differentiate centralized and distributed connectivity and size what each need.
-Place a workload on the network and choose where its traffic is inspected.
-Choose between the NSX load balancer, Avi Load Balancer and an incumbent ADC.

Module 8. Storage Design

-Choose a principal and a supplemental storage model based on stated requirements.
-Explain the vSAN ESA architecture and the data services it delivers by default.
-Design storage policies and size raw capacity from the resulting space factor.
-Design the vSAN network, encryption and operational model.

-Integrate Kubernetes persistent storage with vSAN through storage policies.
-Design NFS and Fiber Channel storage where an array estate already exists.

Module 9. Management Domain Backup and Restore

-Design a backup solution that covers every VCF management component.
-Size an SFTP target from backup size, retention and instance count.
-Sequence a full instance restore in the documented dependency order.
-Outline the instance recovery toolkit, its prerequisites and its cmdlets.
-Design fleet disaster recovery across two instances in two regions.
-Explain the recovery point and recovery time each tier can support

INFO

Esame: 2V0-13.25 - VMware Cloud Foundation 9.0 Architect --- VMware Certified Professional - VMware Cloud Foundation Architect (VCP-VCF Architect)
Materiale didattico: Materiale didattico ufficiale VMware in formato digitale
Costo materiale didattico: incluso nel prezzo del corso a Calendario
Natura del corso: Teorico Metodologico