

VCFAO9 - VMware Cloud Foundation: Automate and Operate [V9.0]



Days: 5

Prerequisites: Students should complete VMware vSphere: Install, Configure, Manage and VMware NSX: Install, Configure, Manage or possess equivalent knowledge and experience.

Audience: System architects and system administrators who automate, deliver, monitor, and operate services in a VMware Cloud Foundation private cloud.

Description: This five-day instructor-led course develops the skills to automate and operate a VCF 9.0 private cloud using VMware Cloud Foundation Automation and VMware Cloud Foundation Operations. Students manage provider and organization infrastructure, networking, identity, content, blueprints, catalogs, IaaS services, metrics, dashboards, alerts, diagnostics, logs, storage, networks, policies, and centralized monitoring.

Course Objectives: Upon completion of this course, students will:

- Describe VCF Automation components and architecture.
- Manage infrastructure, identity, regions, organizations, and networking as a cloud provider.
- Manage content libraries, blueprints, catalogs, access, and orchestrated workflows.
- Deploy virtual-machine and Kubernetes-based IaaS workloads.
- Create VCF Operations views, reports, dashboards, alerts, and policies.
- Use health, diagnostics, logs, storage, networking, service discovery, and application monitoring capabilities.

OUTLINE:

MODULE 1: VCF AUTOMATION ARCHITECTURE

- Features, benefits, and purposes
- Automation architecture

MODULE 2: PROVIDER INFRASTRUCTURE AND IDENTITY

- Provider portals, tasks, and events
- Infrastructure discovery and IP spaces
- SSO, Identity Broker, roles, users, groups, and service accounts

MODULE 3: REGIONS AND ORGANIZATIONS

- Region planning and creation
- Organization models, multitenancy, and quick setup
- VM Apps and All Apps organizations

MODULE 4: PROVIDER NETWORKING

- Provider networks, edge clusters, and gateways
- IP spaces and regional networking
- Resource mapping across Automation, NSX, and vCenter

MODULE 5: ORGANIZATION NETWORKING

- Virtual Private Cloud architecture
- Access modes, subnets, routing, and NAT
- Connectivity profiles and transit-gateway configuration

MODULE 6: CONTENT AND ORGANIZATION MANAGEMENT

- Provider content libraries
- Projects, chargeback, users, groups, and policies
- Catalog content, custom forms, YAML, and orchestration

MODULE 7: IAAS PLATFORM AND MODERN APPLICATIONS

- Supervisor architecture and deployment
- IaaS console and self-service consumption
- VM service specifications and VCF CLI

MODULE 8: VCF OPERATIONS OVERVIEW

- Architecture, console, use cases, and cluster roles

MODULE 9: METRICS, VIEWS, REPORTS, AND DASHBOARDS

- Custom views and reports
- Predefined and custom dashboards
- Widgets, sharing, and management

MODULE 10: SYMPTOMS, ALERTS, AND DIAGNOSTICS

- Symptoms and alert definitions
- Triggered alerts
- Health and Diagnostics
- Troubleshooting Workbench and Log Assist

MODULE 11: LOGS, STORAGE, AND NETWORK OPERATIONS

- VCF Operations for Logs
- Storage performance and health
- Network performance and health

MODULE 12: POLICIES AND CENTRALIZED MONITORING

- Operational policies
- Infrastructure and application monitoring
- Service discovery and application metrics