

# **VMware Advanced Operations & Disaster Recovery**

**Duration: 48 Hours**

## **Course Table of Contents**

### **Module 1: Course Introduction**

- Introductions and course logistics
- Course objectives

### **Module 2: Virtual Machine Operations**

- Recognize the role of a VMware Tools Repository
- Configure a VMware Tools Repository
- Recognize the backup and restore solution for VMs
- Identify the components in the vSphere Replication architecture
- Deploy and configure vSphere Replication
- Recover replicated VMs

### **Module 3: vSphere Cluster Operations**

- Create and manage resource pools in a cluster
- Describe how scalable shares work
- Describe the function of the vCLS
- Recognize operations that might disrupt the healthy functioning of vCLS VMs

### **Module 4: Network Operations**

- Configure and manage vSphere Distributed Switches
- Describe how VMware vSphere Network I/O Control enhances performance
- Explain distributed switch features such as port mirroring and NetFlow
- Define vSphere Distributed Services Engine
- Describe the use cases and benefits of vSphere Distributed Services Engine

### **Module 5: Storage Operations**

- Discuss vSphere support for NVMe and iSER technologies
- Describe the architecture and requirements of vSAN configuration
- Describe storage policy-based management
- Recognize components in the vSphere Virtual Volumes architecture
- Configure Storage I/O Control

### **Module 6: vCenter and ESXi Operations**

- Create a vCenter backup schedule
- Recognize the importance of vCenter High Availability

- Explain how vCenter High Availability works
- Use host profiles to manage ESXi configuration compliance
- Use the vSphere Client to manage vSphere certificates

## **Module 7: vSphere Monitoring**

- Monitor the key factors that can affect a VM's performance
- Describe the factors that influence vCenter performance
- Use vCenter tools to monitor resource use
- Create custom alarms in vCenter
- Describe the benefits and capabilities of VMware Skyline
- Recognize uses for Skyline Advisor Pro

## **Module 8: vSphere Security and Access Control**

- Recognize strategies for securing vSphere components (vCenter, ESXi hosts, and VMs)
- Describe vSphere support for security standards and protocols
- Describe identity federation and recognize its use cases
- Configure identity federation to allow vCenter to use an external identity provider

## **Module 9: vSphere Trusted Environments and VM Encryption**

- Configure ESXi Host Access and Authentication
- Describe VM security features
- Describe the components of a VM encryption architecture
- Create, manage, and migrate encrypted VMs
- List VM encryption events and alarms
- Describe the benefits and use cases of vSphere Trust Authority
- Configure vSphere Trust Authority

## **Module 10: vSphere Replication (Detailed)**

- Introduction to vSphere Replication
- Architecture, Components, and Use Cases
- Deploying and Configuring vSphere Replication
- Replication Management and Failover Testing

## **Module 11: VMware Site Recovery Manager (SRM) – Install & Configure**

- SRM Architecture and Concepts
- Deploying SRM and Pairing Sites
- Configuring Inventory and Protection Groups
- Recovery Plans and Plan Execution

## **Module 12: SRM Operations and Best Practices**

- Planned Migration vs Disaster Recovery
- Testing Recovery Plans
- Reprotect and Failback
- SRM Troubleshooting and Maintenance

## **Module 13: HCX Overview and Use Cases**

- HCX Architecture and Components
- Workload Mobility Scenarios
- HCX Network Extension

## **Module 14: Deploying and Configuring HCX**

- Installing HCX Manager
- Site Pairing and Service Configuration
- Network Profiles and Service Mesh Setup

## **Module 15: HCX Migration Operations**

- Bulk Migration, vMotion, and Cold Migration
- Disaster Recovery with HCX
- HCX Best Practices and Troubleshooting

## **Module 16: vRealize Suite Lifecycle Manager (vRSLCM) Overview**

- Introduction and Architecture
- vRealize Suite Components (vROps, vRA, vRLI, vRB) Overview
- Role of vRSLCM in the VMware Ecosystem

## **Module 17: Deploying and Configuring vRSLCM**

- Installation and Initial Setup
- Environment and Product Deployment
- Certificate and User Management

## **Module 18: vRSLCM Operations, Upgrade, and Troubleshooting**

- Content Management and Configuration Drift
- Product Patching and Upgrades
- Backup and Restore of vRSLCM
- Monitoring and Troubleshooting

## **Module 19: Final Lab and Review**

- Review of Best Practices Across All Products
- Q&A and Wrap-up

