

# Advanced VMware Training Course



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## Advanced VMware Training Course

### Introduction

Welcome to the Advanced VMware Training Course. This program is designed to provide you with an in-depth understanding of VMware so powerful virtualization technology. Over 5 days of intensive training, you will explore advanced concepts, gain hands-on experience, and develop the necessary skills to manage VMware virtual infrastructures, optimize performance, and ensure a highly available, secure, and scalable environment.

## Course Objectives

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

- Develop an advanced understanding of VMware virtualization technology.
- · Gain proficiency in configuring and managing VMware virtual infrastructure.
- Learn how to optimize performance, allocate resources, and ensure scalability in VMware environments.
- Acquire the skills necessary to design, deploy, and maintain VMware solutions effectively.
- Understand best practices for securing VMware environments and implementing disaster recovery strategies.

### **Course Outlines**

#### Day 1: Introduction to Advanced VMware Virtualization

- Virtualization Concepts
- Benefits and challenges of virtualization.
- The role of VMware in modern IT infrastructures.
- · Overview of VMware Products and Solutions.
- Introduction to VMware ESXi, vSphere, and vCenter.
- Key components for managing virtualized environments.
- Installing and Configuring VMware ESXi.
- Networking and storage configuration for ESXi.
- Host profiles and system settings.
- Overview of VMware vCenter Server.
- Managing ESXi hosts and VMs via vCenter.
- vCenter Server architecture and components.

### Day 2: Advanced VMware Configuration and Resource Management

- Virtual Machine Creation and Management.
- Creating, cloning, and customizing virtual machines.
- VM hardware configuration and snapshots.
- Resource Allocation and Performance Optimization.
- · Configuring CPU and memory resource pools.
- Optimizing storage with VMFS, NFS, and iSCSI.
- Performance tuning strategies.
- Virtual Network and Storage Configuration.





- Configuring vSphere Distributed Switch vDS.
- · vSAN and datastore configurations.
- Network I/O control.

### Day 3: VMware High Availability HA and Fault Tolerance FT

- Implementing VMware High Availability HA.
- Configuring HA for VM failover and fault tolerance.
- Admission control and resource allocation policies in HA clusters.
- HA troubleshooting and monitoring.
- VMware Fault Tolerance FT for mission-critical applications.
- Understanding FT principles and configuring FT for critical VMs.
- FT logging, failover procedures, and recovery strategies.
- Cluster Management and Distributed Resource Scheduler DRS.
- Setting up and configuring VMware clusters.
- Implementing DRS for automated load balancing.
- Managing cluster resources for optimal performance.

### Day 4: VMware Security, Compliance, and Disaster Recovery

- Securing VMware Environments.
- Hardening ESXi hosts and securing vCenter Server.
- Role-based access control RBAC and user management.
- Network security best practices: firewalls, VLANs, and encryption.
- Compliance and Auditing in VMware.
- Implementing security and compliance policies.
- Auditing VMware environments for compliance with industry standards.
- Using vSphere logs for troubleshooting and security audits.
- Disaster Recovery Planning with VMware.
- Implementing VMware Site Recovery Manager SRM.
- Backup and restore strategies for VMware environments.
- Business continuity planning and testing disaster recovery plans.

#### Day 5: Advanced VMware Administration, Monitoring, and Automation

- Advanced vCenter Server Administration.
- vCenter Server deployment and advanced configuration.
- Managing multiple vCenter Servers and linked mode.
- High availability for vCenter Server.
- VMware Monitoring and Troubleshooting.
- Using vRealize Operations for performance monitoring.
- Log management and integration with third-party monitoring tools.
- Troubleshooting common VMware issues storage, network, vMotion failures.
- · Automation with VMware PowerCLI.
- Introduction to VMware PowerCLI for automating tasks.
- Using PowerCLI for VM provisioning, configuration, and management.
- · Automating common administrative tasks and reporting.
- Hands-On Lab and Final Review.
- Review of key concepts and advanced configurations.
- Hands-on lab: Configuring VMware HA, FT, DRS, and performance optimization.
- · Q&A session and troubleshooting scenarios.





## Why Attend This Course: Wins & Losses!

- Gain an advanced understanding of VMwareIs virtualization technologies.
- Learn how to optimize performance, allocate resources, and ensure scalability in VMware environments.
- Acquire the skills needed to design, deploy, and maintain VMware solutions effectively.
- Learn best practices for securing VMware environments and implementing disaster recovery strategies.
- Acquire hands-on experience in troubleshooting and managing VMware virtual infrastructures.

### Conclusion

By attending this Advanced VMware Training Course, you will gain the advanced skills and knowledge needed to become an expert in managing VMware virtual infrastructures and ensuring optimal performance in VMware environments. Whether you're aiming to improve your automation skills or ensure your virtual environments are secure, this course provides you with the tools necessary for success in this field.





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