

VMware vSphere: Advanced Administration [V8]

Course Duration: 40 Hours

Course Code: VM-VSP-ADVADM-V8

1. Course Overview

The **VMware vSphere: Advanced Administration [V8]** course is designed for experienced VMware professionals who want to deepen their knowledge and enhance their ability to administer and troubleshoot complex vSphere environments. This advanced-level training provides in-depth coverage of vSphere features, performance optimization, advanced storage, networking configurations, security, and automation techniques. Through a mix of lectures, real-world use cases, and hands-on labs, participants will gain the expertise to handle critical enterprise workloads with confidence.

2. What You'll Learn?

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

- Configure and manage advanced vSphere features for performance and scalability.
- Implement advanced networking and storage concepts in vSphere.
- Optimize vSphere resources for enterprise workloads.
- Enhance security through advanced policies and role-based access control.
- Automate vSphere administrative tasks using PowerCLI and vSphere CLI.
- Troubleshoot complex issues in compute, storage, and networking layers.

- Apply best practices for managing large and distributed vSphere infrastructures.

3. Target Audience

This course is ideal for:

- System Administrators
- Virtualization Engineers
- Data Center Administrators
- Cloud Administrators
- IT Professionals managing advanced VMware vSphere environments

4. Pre-Requisites

Participants should have:

- Completion of **VMware vSphere: Install, Configure, Manage [V8]** or equivalent knowledge.
- Strong understanding of virtualization concepts and vSphere fundamentals.
- Hands-on experience with VMware vSphere administration.

5. Course Content

Module 1: Advanced vSphere Administration Overview

- vSphere architecture and advanced management concepts
- Key differences between standard and advanced administration

Module 2: Advanced Networking in vSphere

- vSphere Distributed Switch configuration and management

- Network I/O control and traffic shaping
- Advanced load balancing and failover

Module 3: Advanced Storage Management

- Storage multipathing and advanced configuration
- VMFS and NFS performance tuning
- Storage policy-based management (SPBM)

Module 4: Resource Management and Performance Tuning

- CPU and memory resource optimization
- Distributed Resource Scheduler (DRS) advanced settings
- Performance monitoring and troubleshooting

Module 5: Advanced Security and Compliance

- Role-based access control and advanced permissions
- Secure vSphere infrastructure best practices
- Auditing and compliance with VMware tools

Module 6: Automation and Scripting

- Automating administration tasks with vSphere CLI and PowerCLI
- Using vSphere APIs for automation
- Integrating vSphere automation with enterprise systems

Module 7: Monitoring and Troubleshooting

- Advanced troubleshooting tools and techniques
- Troubleshooting vSphere compute, storage, and network issues
- Log analysis and health checks

Module 8: Best Practices and Use Cases

- Scaling vSphere for enterprise environments
- Advanced availability and disaster recovery strategies

- Real-world case studies and scenarios

