

5 Days

VMware vSphere: Optimize and Scale plus Troubleshooting Fast Track [V6.5]

As the name itself suggests, this Fast Track five-day course is a perfect mix of VMware vSphere: Optimize and Scale and VMware vSphere: Troubleshooting workshop courses. It envelopes the best of these courses and equips the VMware administrators to optimize and troubleshoot VMware vSphere at the expert level.

Course Objective:

Upon completion of this course, the participant would be able to

- Configure and manage vSphere network and storage.
- Use VMware vSphere® Auto Deploy™ to provision ESXi hosts
- Manage and secure the vSphere environment
- Detect and rectify the vSphere related problems by using VMware vSphere web client, the log files, and the command-line interface.
- Able to troubleshoot network, storage, ESXi host, vSphere cluster, virtual machine problems, and, etc.

Course Details

Course Outline

1. Course Introduction

- Introduction, course logistics, and course objectives

2. Introduction to Troubleshooting

- Identify system problem effects
- Principles of troubleshooting
- Structured and logical troubleshooting procedure
- Illustrations on troubleshooting

3. Troubleshooting Tools

- Use of command-line tools
- Use of VMware vSphere® Management Assistant
- Log files
- Use of VMware vRealize® Log Insight™ for log aggregation, search, and analysis

4. vSphere Security

- Configuration and authorization of ESXi host
- Secure ESXi, vCenter Server, and virtual machines
- Configure vSphere certificate management
- Encrypt virtual machines, vSphere vMotion migrations, and core dumps

5. Network Scalability

- Configure and manage vSphere distributed switches
- Port mirroring, QoS tagging, LACP, and NetFlow

6. Network Optimization

- Network adapters; vSphere networking
- Use of esxtop

7. Networking Troubleshooting

- Identify the Network-related problems
- Analysis and resolution of standard and distributed problems
- Virtual machine analysis and problem fixation
- Network connectivity problems and its restorage
- Prevention of potential problems

8. Storage Scalability

- VMware vSphere® Storage APIs
- Virtual machine storage policies
- Configuration of VMware vSphere® Storage DRS™
- VMware vSphere® Storage I/O Control

9. Storage Optimization

- Storage queue types
- Monitor key storage performance metrics

10. Storage Troubleshooting

- Troubleshoot storage
- Analyze storage-related logs
- Analyze hardware malfunction and software misconfiguration scenarios
- Identify multipathing-related problems
- Recover faulty conditions and restore storage visibility

11. CPU Optimization

- CPU scheduler operation, NUMA support
- Monitor key CPU performance metrics

12. Memory Optimization

- Ballooning, Memory compression, Host-swapping techniques
- Use of ESX top for monitoring

13. Analyzing vSphere

- Proactive DRS and virtual machine availability
- Use of vRealize Log Insight

14. vSphere Clusters

- VMware vSphere® High Availability, problems, and recovery
- vSphere vMotion problems: Analysis and Troubleshooting
- VMware vSphere® Distributed Resource Scheduler™ problems
- Balanced usage of resource
- vSphere cluster failure scenarios and its solutions

15. Virtual Machines

- Virtual machine snapshot problems
- Causes and troubleshooting
- VMware Tools™ installations problems and resolutions
- Failure scenarios and solutions

16. Host and Management Scalability

- Uses of VMware vCenter® Converter™
- Use of VMware vSphere® ESXi™ Image Builder CLI
- Use of content libraries, host profiles

17. vCenter Server and ESXi

- vCenter Server and VMware Platform Services Controller™ architecture
- Authentication problems: Identification and solution
- VMware CA and certificate problems: Troubleshooting
- vCenter Server services, vCenter Server database problems and its solutions
- VMware vCenter Server® High Availability problems and solutions

Who Should Attend

- System administrators
- System engineers
- System integrators

Pre Requisite

- VMware vSphere: ICM 6.5 course concepts
- Equivalent skills and experience with ESXi and vCenter Server

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