

Module 8: Access Control

VMware Infrastructure User Access

- Security Model Overview
- Defining Users and Groups
- Permissions
- VirtualCenter Security Model
- ESX Server Security Model
- Default Permissions for ESX Server

Accessing VMs Using Web Access

- Web Access
- Web Access Tasks

Module 9: Resource Management

Using Resource Pools

- VM CPU Resource Settings
- VM Memory Resource Settings
- How VMs Compete for Resources
- Configuring a Pool's Resources
- Viewing Resource Pool Information
- Expandable Reservation
- Admission Control for CPU and Memory Reservations

Migrate VMs with VMotion

- Move VM Between ESX Servers: VMotion Migration
- How VMotion Works
- Requirements for VMotion
- CPU Constraints on VMotion
- Checking VMotion Errors

Storage VMotion

- Introduction to Storage VMotion
- How Storage VMotion Works
- Storage VMotion - Best Practices
- Requirements and Limitations

VMware Distributed Resource Scheduler (DRS)

- DRS Clusters
- DRS Cluster Settings
- Add Hosts to Cluster
- Best Practices for DRS

Module 9 (continued)

Resource Pools in a DRS Cluster

- Resource Pools in a DRS Cluster Delegated Administration
- Monitor Cluster Usage
- Adding Host to DRS Cluster

Building and Monitoring DRS Clusters

- Guidelines for Initial VM CPU Resources
- Guidelines for Initial VM Memory Resources
- Guidelines for Resource Allocation
- Monitoring the DRS Cluster
- DRS Cluster Memory Resources
- Guidelines for DRS Clusters

Module 10: Resource Monitoring

Tools for Resource Optimization

- Virtual CPUs
- Hyper-Threading
- VMkernel CPU Load Balancing
- Transparent Memory Page Sharing
- vmmemctl: The Balloon-Driver Mechanism
- VMkernel Swap

Monitor VM Performance

- Performance Tuning Methodology
- Monitoring VM Resource Use with Performance Graphs
- Tools for Improving VM CPU and Memory Performance

Monitoring Using Performance-Based Alarms

- Creating a VM-Based Alarm
- Creating a Host-Based Alarm
- Actions to Take When an Alarm is Triggered
- Using Alarms to Monitor CPU and Memory Usage
- Configure VirtualCenter Notifications

VMware Infrastructure 3 Fast Track

Module 11: Business Continuity and Data Protection

Virtual Machine High Availability

Clustering Options

Shared Storage Summary

HBA Configuration for MSCS Clusters

Configuring VMware HA

- What is VMware HA
- VMware HA in Action
- Guidelines for Restart Priority Setting
- Guidelines for Isolation Response Setting
- Customize VMware HA Cluster Behavior
- Customize VM Behavior in an HA Cluster
- Impact of DRS Affinity Rules on HA Clusters
- VMware HA Best Practices
- Troubleshooting VMware HA

Backup Strategies

- General Guideline for VM Backups
- Strategies for VM Backups
- Strategies for Service Console Backups

How VCB works

- VMware Consolidated Backup (VCB)
- Virtual Machine Snapshots
- Files that Make Up the Snapshot
- VCB File-Level Backup
- VCB Full Virtual Machine Backup
- Full Virtual Machine Backup: How it Works
- Multipath Software on the VCB Proxy Server
- VCB Log Files

Module 11 (continued)

Using VCB Command Line Utilities

- Using VCB Command-Line Utilities
- Identify a Virtual Machine(s) Backup or Snapshot
- Perform a Full Virtual Machine Backup
- Back Up Individual Virtual Disks
- Restore from VCB Backups
- Image Level Restoration
- File Level Restoration
- Restoration Using VMware Converter

Module 12: Operational Maintenance

VMware Update Manager

- VMware Update Manager Overview
- Installing VMware Update Manager
- Installing Client Plug-In
- Configuring VMware Update Manager Settings
- Scheduling Downloads
- Installing the Guest Agent
- Baseline Creation
- Updates Needed
- Report on a Non-Compliant VM
- Remediate: Baseline and Updates
- Responding to Guest Remediation Failure
- Scanning ESX Hosts
- DRS-enabled Remediation
- Troubleshooting - Update Manager

VMware Infrastructure 3 Fast Track

Module 13: Modify Logging Behavior

Configure Logging for vpxd and vpxa

- Windows Environment Variables
- VirtualCenter Installation Logs
- The VirtualCenter Server Configuration File
- VirtualCenter Server - vpxd Logs
- Adjusting Log Detail With VI Client
- Log Options for vpxd & vpxa
- VI Client Log File Locations - VI Client Logs
- Miscellaneous VirtualCenter Log File Locations
- Virtual Machine Logging

Consolidating Service Console Log Files

- Configure Logging on the Service Console
- How to Configure /etc/syslog.conf
- ESX Specific syslog.conf Entries
- Using the logger Command

Rotating Service Console Log Files

- Rotating Service Console Log Files
- Third-Party Logs

Module 14: Service Console Security

Configure SSH

- Direct ESX Server Login Authentication Process
- Controlling Remote Service Console Access
- Enable an Illegal Access Warning
- Tracking User Access

Configure sudo

- Using the Switch User Command
- Limiting Access to the su Command
- Configuring sudo
- Preventing Shell Escapes
- ESX Command Summary
- Service Console OS Command Summary

Configure TCP Wrappers

- Controlling Host Access
- Advantages of TCP Wrappers
- TCP Wrapper Flow

Module 15: Rapid Provisioning of ESX Servers

Scripted ESX Server Installations/Overview of Scripted

- Create an Installation Script
- Installation Script Content
- Common Deployment Scenarios