

# VMware vSphere 6, Part 5 of 5: Availability and Backups

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**Meet the expert:** Jeff has held a broad spectrum of positions within the IT field for over 30 years. Jeff has owned and operated his own IT business and has installed and supported networks and data centers at almost every level of the IT world. Jeff has recently authored both courseware and exams for Microsoft. For over 15 years, Jeff has worked as a consultant and trainer with a focus on the design of Enterprise Architecture, as well as Windows and VMware networks.

**Prerequisites:** This course assumes that students are familiar with the basic use of Windows and common use of the mouse and keyboard. No prior experience with Office 365 is assumed.

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**Course description:** Welcome to VMware 6 Bootcamp. In this course we cover patching and upgrading hosts and environment and the methodologies to do this correctly. Also, disaster recovery, backups as well as high availability and fault tolerant VMs.

## Course outline:

### Patching ESXi and vCenter Environment

- Introduction
- ESXi Standalone Patch Installation
- vCSA Patch/Update Installation
- Shavlik Protect
- Update Manager Terms
- Install Update Manager 6.0
- Update Manager vSphere Client Plug-in
- Update Manager Baselines
- Update Manager Defaults and Config. Options
- Update Manager Events and Notifications
- Patch Repository
- Install Update Manager on a Separate Server
- Update Manager Sizing Estimator and Tab
- Update Manager in the Web Client
- Remediation
- Summary

### Upgrades and Migrations

- Introduction
- vCenter Upgrade Methodology: Older Versions to 5.X
- Upgrade vCenter 5.0 and 5.1/5.5 to 6.0
- Upgrade vCSA 5.1U3/5.5 to 6.0
- Services Migrated During Upgrade vCenter to 6.0
- Upgrade Multiple Products to Use vCenter 6.0
- Upgrade vCenter SSO 5.1/5.5 for External Deploy
- Move from Embedded to External SSO
- Upgrade vCenter 4.1 to 5.5
- Upgrade vCenter 5.0 to 6.0: All in One

- Upgrade vCSA 5.1U3/5.5 to 6.0
- Upgrade Update Manager 4.1 to 5.5
- Upgrade Update Manager 5.5 to 6.0
- Migrate SQL Express to Full SQL Server
- Upgrade Error: Incompatible MSSQL Version
- Upgrade Host to ESXi 6.0 Using Media
- ESXi Upgrade Using Update Manager
- ESXi Migration to New Hardware
- Upgrade Distributed Switch to 6.0
- Upgrade the Virtual Machines
- Use the Web Client to Upgrade VMware Tools
- Use vSphere Client to Upgrade VM Hardware v11
- Use Update Manager to Upgrade Virtual Machines
- Summary

### vSphere Replication and Site Recovery

- Introduction
- vSphere Replication 5.5
- What's new in vR v5.5
- What's New in vR v6.0
- vR v6.0 Deploy Appliance
- vR v6.0 Configure Replication
- vR v6.0 Recovery
- VMware Site Recovery Manager v5.5
- VMware SRM v5.5 and 6.0: Features
- VMware SRM v5.5: What's New
- SRM Architecture Overview
- Summary

### High Availability

- Introduction

- VMware High Availability
- New vSphere 5.0 HA Features
- New vSphere 5.0 HA Features (Cont.)
- New vSphere 5.1 HA Features
- New vSphere 5.5 HA Features
- New vSphere 6.0 HA Features
- vSphere 6.0 HA in Action
- Configure HA Cluster and Host Monitoring
- Host Isolation
- Guidelines for Isolation Response Setting
- VMware HA: Virtual Machine Overrides
- Configure HA Admission Control
- HA VM Monitoring
- Viewing Your HA Cluster
- Summary

### VM Fault Tolerance

- Introduction
- Fault Tolerance Overview
- Demo: Symmetrical Multiprocessing
- Demo: Fault Tolerance
- Fault Tolerance Requirements
- Fault Tolerance Differences
- Configure Fault Tolerance
- Summary

### Clustering Backup and Data Protection

- Introduction
- Virtualizing Microsoft Clusters
- vSphere 5.5 and 6.0 Updates for MSCS/WSFC

- Backup Strategies for VMs
- What's New in VDP 6
- vSphere Data Protection 5.8
- VDP Installation
- vSphere Data Protection 5.8: What's New
- vSphere Data Protection Advanced 5.8
- VDP 5.8: Configure Settings
- Using VDP to Backup a VM
- VDP 6.0: Create Application Backup Job
- Using VDP to Restore a VM
- File Level Restore
- Replication to and from Avamar
- Direct-to-Host Restore
- Summary

### Third Party Backups

- Introduction
- Unitrends Virtual Backup
- Dell/Quest vRanger
- Veeam Backup and Replication
- Veem Update
- Veeam Backup: Screenshots
- Veeam Zip and Veeam Backup Free Edition
- VeeamZip: Screenshots
- Symantec NetBackup v7.5 and 7.6
- Certification Exam
- Summary