

VMware vSphere 4.0 Ultimate BootCamp

Length: 5 Days

Course Description: Ultimate Bootcamps® give the student in-depth skills training through hands-on experience with state-of-the-art equipment. The focus of the CVE 4.0® training is to instill the knowledge required for the student to do their job efficiently and effectively first. To accomplish this, the Bootcamp provides a comprehensive, A-Z training experience, starting from the installation of the licensed product to real world troubleshooting scenarios. The course's focus is not limited only to learning and harnessing the power of VMware®, but the entire concept of virtualization, 3rd party tools, and technologies that will enhance VMware® capabilities and increase the student's virtualization expertise.

After completing this course, students will be able to:

- Install, configure, and support ESX Server 4 and vCenter 4
- Configure Virtual Machines, templates, and clones
- Configure Virtual Networking including vNetwork Distributed Switches & vShield Zones & how to support VMotion & iSCSI Multipathing.
- P2V, V2V, V2P, and P2P methods and techniques
- Server Consolidation procedures and reasoning
- Support a virtual infrastructure -VMware®, PlateSpin®, Vizioncore™, Veeam, and more
- VMotion™, Storage VMotion, Distributed Power Mgt (DPM), Update Manager, Power Mgmt, Guided Consolidation, Fault Tolerance, Clustering – DRS/HA, etc.
- Best Practices within a Virtual Enterprise
- Perform backups in the ESX environment – Service Console and Virtual Machines – VCB and Data Recovery
- Use the Command Line Interface for supporting ESX & ESXi Servers - ESX commands
- Configure and optimize storage - FC, iSCSI, NFS, Multipathing, and Thin Provisioning

Outline

Chapter 1: Course Intro & Methodology

Chapter 2: Virtualization Overview

Chapter 3: Planning & Installing ESX 4

- Planning ESX 4 Server Deployment
- Deployment Guidelines
- ESX 4 Installation *HOL
- ESX 4 Management
- Configuring Hostname Resolution and NTP *HOL
- Troubleshooting ESX 4 Server

Chapter 4: Using Tools to Administer a VMware Environment

- Overview of 3rd Party Tools *HOL
- Windows Commands vs. Linux Commands
- ESX 4 Configuration Commands

Chapter 5: Configuring Networking

- Create & Modify Virtual Networks *HOL
- Create & Modify Virtual Networks using CLI *HOL

Chapter 6: Configuring Storage

- Storage Concepts
- iSCSI Storage (GUI & Cmd Line) *HOL
- Fibre Channel Storage (GUI & Cmd Line)
- VMFS Datastores (GUI & Cmd Line) *HOL
- NAS Storage and NFS Datastores (GUI & Cmd Line) *HOL
- Raw Device Mapping (RDM) *HOL

Chapter 7: VirtualCenter and License Server

- Licensing
- vCenter Server 4 Installation *HOL
- vCenter Server 4 Inventory *HOL

Overview

- Managing vCenter Server 4
- Planning vCenter Server 4
- Deployment
- Troubleshooting vCenter
- Server 4 Deployment
- Troubleshooting the vSphere
- Client *HOL

Chapter 8: VM Creation and Configuration & Snapshots

- Create a VM *HOL
- Create Multiple VMs, Templates & Clones *HOL
- Virtual Appliances *HOL
- VMware vCenter Converter 4 (P2V, V2V) *HOL
- Manage VMs *HOL
- Virtual Machine Startup / Shutdown
- Virtual Machine Snapshots *HOL
- Web Access *HOL
- Troubleshooting Virtual Machines

Chapter 9: Security and Permissions

- Security Overview *HOL
- User Access *HOL
- ESX AD Integration *HOL
- Managing Firewalls *HOL
- Advanced Security: SSH & SUDO *HOL

Chapter 10: Advanced ESX and VirtualCenter Management

- Configuring Resource Pools *HOL
- Configuring VMotion *HOL
- Storage VMotion *HOL
- Distributed Resource Scheduler (DRS) *HOL
- Resource Pools in DRS Clusters *HOL
- Host Profiles *HOL
- vNetwork Distributed Virtual Switch *HOL
- Cisco Nexus 1000v Virtual Switch

Chapter 11: Patching and Upgrading ESX

- Patching ESX Server 4 *HOL
- Upgrades and Migrations *HOL
- Update Manager *HOL
- Upgrading from ESX 3.x to ESX 4.x *HOL



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Chapter 12: Disaster Recovery and Backup

- Site Recovery Manager (SRM)
- High Availability (HA) *HOL
- VMware Fault Tolerance
- Microsoft Clustering
- Backup Strategies
- Using VCB Command Line Utilities *HOL
- VMware Data Recovery *HOL
- Third Party Backups *HOL

Chapter 13: Server and VM Monitoring

- Tools for Optimization
- Monitor VM Performance *HOL
- Configuring Alarms *HOL
- Collecting Log Files *HOL

Chapter 14: Installing and Configuring ESXi

- ESXi 4 Server Install *HOL
- Managing ESXi 4 with VIC
- Managing ESXi 4 through VirtualCenter