



Course Outline

VMware VI4.0 Ultimate Bootcamp & Official Certified Virtualization Expert® (CVE®)

Five Days – (Classroom)

Introduction

The VMware® vSphere 4.0 Ultimate Bootcamp® is taught by top virtualization experts and offers hands-on labs designed to expose the student to advanced virtualization concepts and the VMware® vSphere 4.0 product suite. This comprehensive class prepares the student to become a certified professional virtualization expert with the Certified Virtualization Expert 4.0® (CVE 4.0®) certification to attest to their knowledge of the material and technology.

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.

Course Summary

- Five (5) 10 hour days of intense instruction with no outside distractions
- Personal access to the top virtualization experts in the industry
- Each student is provided their own dedicated server to practice on.
- 50 + labs to hone skills and give a 360° perspective on how to build and maintain virtual environments.
- Install, configure, deploy, secure, analyze, consolidate and design virtual networks from A-Z
- **Breakfast, Lunch, and snacks provided on each day of class.**
- Learn to apply third party solutions to simplify processes and make the job easier.
- Post mentoring from the best virtualization instructors in the industry.
- The Certified Virtualization Expert® certification establishes credentials with employers.

Course Objectives

- About all of the new and exciting features of VMware® vSphere 4.0
- Foundational terms and concepts concerning virtualization
- How to install, configure, and support ESX Server 4 and vCenter 4
- How to configure Virtual Machines, templates, and clones
- How to 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
- Tools to 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
- How to perform backups in the ESX environment – Service Console and Virtual Machines – VCB and Data Recovery
- How to use the Command Line Interface for supporting ESX & ESXi Servers - ESX commands
- Configure and optimize storage - FC, iSCSI, NFS, Multipathing, and Thin Provisioning.



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Essential Third Party Tools

Any job is easy when you have the right tools. In the Ultimate Bootcamp® the student will be introduced to and learn how to apply third party tools that when utilized in conjunction with VMware, will not only enhance students' skills, but also simplify processes, optimize efficiency, and make their jobs that much easier.

Quality "Resourceware" and Follow-up Continuing Education

With more than 750 pages and a 250 page lab book, this Ultimate Bootcamp® courseware is intuitively designed to help the student easily move through the chapters regardless of their level of experience and will serve as a reference source even after the class. This unique feature of all Ultimate Bootcamps® is what attracts so many students looking for a great training experience.

Course Outline

Chapter 1

Course Introduction and Methodology (HOL)

Chapter 2

Virtualization Overview

Chapter 3

Planning and Installing ESX 4

1. Planning ESX 4 Server Deployment
2. Deployment Guidelines
3. ESX 4 Installation (HOL)
4. ESX 4 Management
5. Configuring Hostname Resolution and NTP (HOL)
6. Troubleshooting ESX 4 Server

Chapter 4

Using Tools to Administer a VMware Environment

1. Overview of 3rd Party Tools (HOL)
2. Windows Commands vs. Linux Commands
3. ESX 4 Configuration Commands
4. Summary of Remote CLI Commands

Chapter 5

Configuring Networking

1. Create & Modify Virtual Networks (HOL)
2. Create & Modify Virtual Networks using CLI (HOL)



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Chapter 6

Configuring Storage

1. Storage Concepts
2. iSCSI Storage (GUI & Command Line) (HOL)
3. Fibre Channel Storage (GUI & Command Line)
4. VMFS Datastores (GUI & Command Line) (HOL)
5. NAS Storage and NFS Datastores (GUI & Command Line) (HOL)
6. Raw Device Mapping (RDM) (HOL)

Chapter 7

VirtualCenter and License Server

1. Licensing
2. vCenter Server 4 Installation (HOL)
3. vCenter Server 4 Inventory (HOL)
4. Managing vCenter Server 4
5. Planning vCenter Server 4 Deployment
6. Troubleshooting vCenter Server 4 Deployment
7. Troubleshooting the vSphere Client (HOL)

Chapter 8

VM Creation and Configuration & Snapshots

1. Create a VM (HOL)
2. Create Multiple VMs, Templates & Clones(HOL)
3. Virtual Appliances (HOL)
4. VMware vCenter Converter 4 (P2V, V2V) (HOL)
5. Manage VMs (HOL)
6. Virtual Machine Startup/Shutdown
7. Virtual Machine Snapshots (HOL)
8. Web Access (HOL)
9. Troubleshooting Virtual Machines

Chapter 9

Security and Permissions

1. Security Overview (HOL)
2. User Access (HOL)
3. ESX AD Integration (HOL)
4. Managing Firewalls (HOL)
5. Advance Security: SSH & SUDO (HOL)



Chapter 10

Advanced ESX and VirtualCenter Management

1. Configuring Resource Pools (HOL)
2. Configuring VMotion (HOL)
3. Storage VMotion (HOL)
4. Distributed Resource Scheduler (DRS) (HOL)
5. Resource Pools in DRS Clusters (HOL)
6. Host Profiles (HOL)
7. vNetwork Distributed Virtual Switch (HOL)
8. Cisco Nexus 1000v Virtual Switch

Chapter 11

Patching and Upgrading ESX

1. Patching ESX Server 4 (HOL)
2. Upgrades and Migrations (HOL)
3. Update Manager (HOL)
4. Upgrading from ESX 3.x to ESX 4.x (HOL)

Chapter 12

Disaster Recovery and Backup

1. Site Recovery Manager (SRM)
2. High Availability (HA) (HOL)
3. VMware Fault Tolerance
4. Microsoft Clustering
5. Backup Strategies
6. Using VCB Command Line Utilities (HOL)
7. VMware Data Recovery (HOL)
8. Third Party Backups (HOL)

Chapter 13

Server and VM Monitoring

1. Tools for Optimization
2. Monitor VM Performance (HOL)
3. Configuring Alarms (HOL)
4. Collecting Log Files (HOL)

Chapter 14

Installing and Configuring ESXi

1. ESXi 4 Server Install (HOL)



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2. Managing ESXi 4 with the VIC
3. Managing ESXi 4 through VirtualCenter