Hands-On
I and M Microsoft Server Virtualization
Implementing and Managing

BTS
Real-World Experience

Course Description

In this extensive Hands-On course, you will gain the knowledge and skills to deploy and manage a server virtualization environment using Microsoft technologies.

You will learn to deploy and manage Hyper-V and Remote Desktop Services on Windows Server 2008 R2. You will learn how to manage a server virtualization environment by using System Center products, such as System Center Virtual Machine Manager (VMM) 2008, VMM 2008 R2, System Center Operations Manager 2007 R2, System Center Data Protection Manager 2007 R2, and System Center Configuration Manager 2007 R2.

While you do not need server virtualization experience to participate in this course, you should have significant experience managing Windows Server 2008 or Windows Server 2008 R2.

Students Will Learn

- **Virtualization As It Relates To Server, Desktop, And Application Environments**
- **Install The Hyper-V Server Role And Configure Host And Virtual Network Settings**
- **Plan For And Deploy Virtual Hard Disk(S) And Virtual Machines**
- **VMM 2008 R2 And How It Integrates With The Hyper-V Environment**
- **Manage Hosts And Host Groups In VMM**
- **Create And Deploy Virtual Machines On A Host**
- **Perform Physical-To-Virtual Machine (PV2) And Virtual-To-Virtual (V2V) Conversions, Virtual Machine Migrations, And Cloning**
- **And More...**

Target Audience

Microsoft Windows Server 2008 system administrators who will manage and implement server virtualization technologies within their networks and who are responsible for virtualizing their current servers or have been requested or directed by IT management to research and/or implement server virtualization

Prerequisites

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Attendees should have significant experience managing Windows Server 2008 or Windows Server 2008 R2.

Course Outline

1. Evaluating and Planning for Virtualization

- Microsoft Virtualization
- Virtualization Management
- Evaluating the Current Environment for Virtualization

2. Installing and Configuring the Hyper-V Server Role
- Installing the Hyper-V Server Role
- Configuring Hyper-V Settings and Virtual Networks

3. Creating and Configuring Virtual Hard Disks and Virtual Machines
- Creating and Configuring Virtual Hard Disks
- Creating and Configuring Virtual Machines
- Managing Virtual Machines Snapshots
- Working with the Virtual Machine Connection Application

4. Integrating System Center Virtual Machine Manager with Microsoft Hyper-V Server 2008 R2
- Planning for Integration of System Center Virtual Machine Manager
- Installing the VMM Server and Administrator Console
- Managing Hosts and Host Groups

5. Creating and Deploying Virtual Machines Using Microsoft System Center Virtual Machine Manager 2008 R2
- Creating a New Virtual Machine Using VMM 2008 R2
- Converting a Physical Server to a Virtual Machine
- Converting and Migrating Virtual Machines

6. Managing Virtual Machines Using Virtual Machine Manager 2008
- VMM Management Tasks
- Creating and Managing Checkpoints

7. Configuring and Managing the VMM Library
- Overview of the VMM Library
- Managing Profiles and Templates
- Designing Fault Tolerance for the VMM Library Highly Available

8. Configuring User Roles and the Virtual Machine Manger Self-Service Portal
- Configuring User Roles
- Installing and Configuring the VMM Self-Service Portal

9. Implementing High Availability for Server Virtualization
- Failover Clustering
- Implementing Failover Clustering with Hyper-V
- Implementing High Availability with VMM 2008 R2

10. Maintaining Software Updates Using the Offline Virtual Machine Servicing Tool
- Offline Virtual Machine Servicing Tool
- Configuring WSUS and the Offline Virtual Machine Servicing Tool

11. Monitoring and Reporting Virtualization

- Monitoring Jobs in VMM R2
- Integrating Center Operations Manager 2007 with VMM 2008 R2
- Configuring Performance and Resource Optimization

12. Backup and Restore Strategies for Virtual Machines
    - Backup and Restore Options for Virtual Machines and the VMM Database
    - Implementing Data Protection Manager for Backing Up the VMM Infrastructure

13. Desktop Virtualization Using Remote Desktop Services
    - Remote Desktop Services
    - Implementing the Remote Desktop Session Host
    - Implementing Remote Desktop Connection Broker
    - Implementing the Remote Desktop Connection Virtualization Host

14. Extending Remote Desktop Services Outside the Organization
    - Configuring the Remote Desktop Gateway
    - Configuring Remote Desktop Web Access

Delivery Method

Instructor-Led with numerous Hands-On labs and exercises.

Equipment Requirements
(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

5 Days