Configuring and Deploying a Private Cloud with System Center 2012

Duration: 5 Days  Course Code: M10751

Overview:
This course teaches students how to design, install and configure a private cloud, including how to configure and deploy the application infrastructure as well as the key components of System Center 2012 that are necessary for delivering services on the private cloud infrastructure.

This course provides direction on producing a high-level design that accounts for requirements for the private cloud environment. Students will learn how to configure and deploy the application infrastructure, how to configure a preboot execution environment (PXE) server, an update server, and a software update baseline. Students will learn how to sequence and deploy an application virtually, and how to build the core components that are necessary for delivering services in the infrastructure. They will also allocate resources and grant access to the private cloud.

Additionally, students will learn how to monitor the private cloud, and setup, configure, and integrate the core System Center 2012 - Service Manager components into the private cloud infrastructure. Students will learn how to configure a service catalog and publish this catalog to the self-service portal. They will also gain the knowledge required to deploy and configure System Center 2012 - Data Protection Manager (DPM) and Orchestrator in a private cloud, and integrate these products with other System Center 2012 components.

Target Audience:
This course is intended for data center administrators who will be responsible for designing, installing, and configuring a private cloud infrastructure. The secondary audience for this course are data center administrators who will be responsible for monitoring and protecting the private cloud infrastructure.

Objectives:
- After completing this course, students will be able to:
- Monitor the private cloud infrastructure.
- Plan for the private cloud.
- Extend and customize monitoring of the private cloud infrastructure.
- Configure and deploy the private cloud infrastructure.
- Implement service management for the private cloud.
- Extend and maintain the private cloud infrastructure.
- Configure a private cloud service catalog.
- Create virtual application delivery.
- Protect the private cloud infrastructure.
- Automate and standardize the private cloud.
- Create the private cloud building blocks.
- Deploy and access the first business unit private cloud.

Prerequisites:
Before attending this course, students must already have the following technical knowledge:
- Windows Server 2008 R2 operating system.
- Active Directory Domain Services (AD DS).
- Networking experience.
- Working knowledge of previous versions of System Center products.
- Microsoft SharePoint configuration.
- Windows Server 2008 Hyper-V.
- Familiarity with data center management processes.
- Storage area networks (SANs).
Module 1: Planning for the Private Cloud

This module describes the core components of a private cloud and the prerequisites for deploying a private cloud.

Lessons
- Understanding the Private Cloud
- Requirements for Deploying a Private Cloud
- Designing the Private Cloud Components
- Deploying a Private Cloud Infrastructure with System Center 2012
- Deploying Hyper-V Clustering with Virtual Machine Manager (VMM)
- Virtual Machine Manager Architecture and Components Overview
- Installing and Upgrading Virtual Machine Manager
- Configuring VMM Security and Roles
- Understanding Host Groups
- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Remediating an Update Baseline
- Dynamic Application Deployment Overview
- Web Deployment Packages
- Server Application Virtualization Overview
- Configuring Server App-V Components
- Sequencing and Deploying Virtual Applications
- Configuring Guest Operating System Profiles
- Configuring Hardware Profiles
- Deploying SQL Server Using SQL Server Profiles
- Configuring Application Profiles for a Deployment
- Configuring Virtual Machine Templates
- Configuring Self-Service Portal Users
- Understanding Private Clouds
- Installing and Configuring Application Controller
- Creating and Managing Services and Service Templates
- Operations Manager Architecture and Security
- Upgrading Operations Manager
- Configuring Notifications
- Configuring Management Packs
- Configuring Integration with System Center 2012
- Configuring a SharePoint Portal
- Using the Monitoring Templates
- Understanding Distributed Application Monitoring
- System Center Service Manager Architecture Overview
- Upgrading Service Manager
- Understanding Service Manager Work Items

Module 5: Creating the Private Cloud Building Blocks

This module explains how to prepare and deploy the underlying infrastructure components that are used as building blocks for delivering private cloud services.

Lessons
- Understanding the Private Cloud
- Requirements for Deploying a Private Cloud
- Designing the Private Cloud Components
- Deploying a Private Cloud Infrastructure with System Center 2012
- Deploying Hyper-V Clustering with Virtual Machine Manager (VMM)
- Virtual Machine Manager Architecture and Components Overview
- Installing and Upgrading Virtual Machine Manager
- Configuring VMM Security and Roles
- Understanding Host Groups
- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Remediating an Update Baseline
- Dynamic Application Deployment Overview
- Web Deployment Packages
- Server Application Virtualization Overview
- Configuring Server App-V Components
- Sequencing and Deploying Virtual Applications
- Configuring Guest Operating System Profiles
- Configuring Hardware Profiles
- Deploying SQL Server Using SQL Server Profiles
- Configuring Application Profiles for a Deployment
- Configuring Virtual Machine Templates
- Configuring Self-Service Portal Users
- Understanding Private Clouds
- Installing and Configuring Application Controller
- Creating and Managing Services and Service Templates
- Operations Manager Architecture and Security
- Upgrading Operations Manager
- Configuring Notifications
- Configuring Management Packs
- Configuring Integration with System Center 2012
- Configuring a SharePoint Portal
- Using the Monitoring Templates

Module 9: Implementing Service Management for the Private Cloud

This module explains how to setup, configure, and integrate the core components of System Center 2012 - Service Manager into the private cloud infrastructure.

Lessons
- Understanding the Private Cloud
- Requirements for Deploying a Private Cloud
- Designing the Private Cloud Components
- Deploying a Private Cloud Infrastructure with System Center 2012
- Deploying Hyper-V Clustering with Virtual Machine Manager (VMM)
- Virtual Machine Manager Architecture and Components Overview
- Installing and Upgrading Virtual Machine Manager
- Configuring VMM Security and Roles
- Understanding Host Groups
- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Remediating an Update Baseline
- Dynamic Application Deployment Overview
- Web Deployment Packages
- Server Application Virtualization Overview
- Configuring Server App-V Components
- Sequencing and Deploying Virtual Applications
- Configuring Guest Operating System Profiles
- Configuring Hardware Profiles
- Deploying SQL Server Using SQL Server Profiles
- Configuring Application Profiles for a Deployment
- Configuring Virtual Machine Templates
- Configuring Self-Service Portal Users
- Understanding Private Clouds
- Installing and Configuring Application Controller
- Creating and Managing Services and Service Templates
- Operations Manager Architecture and Security
- Upgrading Operations Manager
- Configuring Notifications
- Configuring Management Packs
- Configuring Integration with System Center 2012
- Configuring a SharePoint Portal
- Using the Monitoring Templates
- Understanding Distributed Application Monitoring
### Module 2: Configuring and Deploying the Private Cloud Infrastructure

This module describes how to configure infrastructure components by using System Center 2012 - Virtual Machine Manager.

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- Designing the Private Cloud Components
- Deploying a Private Cloud Infrastructure with System Center 2012
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- Virtual Machine Manager Architecture and Components Overview
- Installing and Upgrading Virtual Machine Manager
- Configuring VMM Security and Roles
- Understanding Host Groups
- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Remediating an Update Baseline
- Dynamic Application Deployment Overview
- Web Deployment Packages
- Server Application Virtualization Overview
- Configuring Server App-V Components
- Sequencing and Deploying Virtual Applications
- Configuring Guest Operating System Profiles
- Configuring Hardware Profiles
- Deploying SQL Server Using SQL Server

### Module 6: Deploying and Accessing the First Business Unit Private Cloud

This module explains private clouds, System Center 2012 - App Controller, and private cloud services.

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- Requirements for Deploying a Private Cloud
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- Virtual Machine Manager Architecture and Components Overview
- Installing and Upgrading Virtual Machine Manager
- Configuring VMM Security and Roles
- Understanding Host Groups
- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Remediating an Update Baseline
- Dynamic Application Deployment Overview
- Understanding Distributed Application Monitoring
- System Center Service Manager Architecture Overview
- Upgrading Service Manager
- Understanding Service Manager Work Items
- Configuring System Center Service Manager Connectors
- Configuring Notifications
- Understanding Incident and Problem Management
- What Is a Service Catalog?
- Cloud Service Process Management Pack Overview
- Configuring Service Request Fulfillment
- Configuring Service Offerings
- Service Level Management
- Data Protection Manager Architecture and Security
- Upgrading Data Protection Manager
- Configuring Data Protection Manager for Protection of the Private Cloud
- Configuring Application Protection for the Private Cloud
- Restoring Applications to the Private Cloud
- System Center Orchestrator Overview
- Deploying and Configuring Core Components
- Configuring Integration Packs
- Creating Runbooks
- Executing a Runbook from Service Manager

### Module 10: Configuring a Private Cloud Service Catalog

This module explains how to configure a service catalog and publish the service catalog to the self-service portal.

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- Virtual Machine Manager Architecture and Components Overview
- Installing and Upgrading Virtual Machine Manager
- Configuring VMM Security and Roles
- Understanding Host Groups
- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Remediating an Update Baseline
- Dynamic Application Deployment Overview
Module 3: Extending and Maintaining the Private Cloud Infrastructure

This module describes how to integrate features provided by Windows Deployment Services (WDS) and Windows Server Update Services (WSUS) to help extend and manage the VMM private cloud infrastructure resources.

Lessons
- Understanding the Private Cloud
- Requirements for Deploying a Private Cloud
Module 4: Configuring Virtual Application Pack Overview

This module explains how to use the Microsoft Web Deployment Tool and Microsoft Server Application Virtualization (Server App-V) to dynamically deploy applications in the private cloud.

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- Configuring Server App-V Components
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- Configuring Hardware Profiles
- Deploying SQL Server Using SQL Server Profiles
- Configuring Application Profiles for a Deployment
- Configuring Virtual Machine Templates
- Configuring Self-Service Portal Users
- Understanding Private Clouds
- Installing and Configuring Application Controller
- Creating and Managing Services and Service Templates
- Operations Manager Architecture and Security

Module 8: Extending and Customizing System Center 2012 Components

This module explains how to use Operations Manager templates to monitor various applications and implement distributed application monitoring.

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- Configuring a SharePoint Portal
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- Configuring Notifications
- Understanding Incident and Problem Management
- What Is a Service Catalog?
Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278
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