To register or for more information call our office **(208) 898-9036** or email **register@leapfoxlearning.com**

10751A Configuring and Deploying a Private Cloud with System Center 2012

Duration: Five Days

Course Outline

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 Infrastructure
- Overview of System Center 2012 Components
- Deploying Hyper-V Clustering with VMM

Lab : Planning for the Private Cloud

- Deploying the Virtual Machine Manager Agent
- Creating a Hyper-V Host Cluster Using VMM

After completing this module, students will be able to:

- Describe the private cloud.
- Describe the requirements for deploying a private cloud.
- Design a private cloud infrastructure.
- Describe the System Center 2012 components.
- Deploy Hyper-V clustering with VMM.

Module 2: Configuring and Deploying the Private Cloud with System Center 2012 -Virtual Machine Manager

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

Lessons

- Overview of VMM Architecture and Components
- Installing and Upgrading VMM
- Configuring VMM Security and Roles
- Understanding Host Groups

Lab : Configuring and Deploying the Private Cloud Infrastructure

- Reviewing and Configuring Hosts
- Configuring Host Groups
- Configuring User Roles and Run As Accounts
- Configuring the Library
- Preparing the Private Cloud Infrastructure
- Deploying a New Virtual Machine

After completing this module, students will be able to:

- Describe VMM architecture and components.
- Install and upgrade VMM.
- Configure VMM security and roles.
- Understand host groups.

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

- Overview of the PXE and Update Server Roles
- Deploying Bare-Metal Hyper-V Host Servers
- Configuring the Update Server Role
- Creating and Using an Update Baseline

Lab : Maintaining the Private Cloud Infrastructure

- Configuring a PXE Server in VMM
- Configuring a Host Profile
- Configuring an Update Server Role in VMM
- Configuring a Software Update Baseline in VMM

After completing this module, students will be able to:

- Describe how VMM integrates with WDS and WSUS to provide PXE and Update server roles.
- Describe how to deploy bare-metal Hyper-V host servers.
- Describe how to maintain updates within the VMM infrastructure.
- Configure the Update server role.
- Create and use a software update compliance baseline.

Module 4: Configuring Application Delivery

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

Lessons

- Dynamic Application Deployment Overview
- Web Deployment Packages
- Server Application Virtualization Overview
- Configuring Server App-V Components
- Sequencing and Deploying Virtual Applications

Lab : Configuring Virtual Application Delivery

- Configuring the Server App-V Sequencer
- Configuring the Server App-V Agent
- Sequencing an Application
- Testing the Server App-V Package Deployment

After completing this module, students will be able to:

- Describe dynamic application deployment.
- Create web deployment packages by using the Web Deployment Tool.
- Describe server application virtualization.
- Configure the Server App-V agent and sequencer.
- Sequence and then test a Server App-V virtualized application.

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

- Configuring Guest Operating System Profiles
- Configuring Hardware Profiles
- Configuring SQL Server Using SQL Server Profiles
- Configuring Application Profiles
- Configuring Virtual Machine Templates
- Configuring the Self-Service User Role

Lab : Creating the Private Cloud Building Blocks

- Configuring Profiles
- Configuring Virtual Machine Templates
- Configuring a Service Template
- Configuring a User Role
- Deploying the StockTrader Application Service

After completing this module, students will be able to:

- Configure guest operating system profiles.
- Configure hardware profiles.

- Deploy SQL Server using SQL Server profiles.
- Configure application profiles for a deployment.
- Configure virtual machine templates.
- Configure the self-service user role.

Module 6: Deploying and Accessing a Private Cloud

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

Lessons

- Understanding Private Cloud Computing
- Installing and Configuring App Controller
- Creating and Managing Services and Service Templates

Lab : Deploying and Accessing a Private Cloud

- Creating and Configuring a Private Cloud
- Configuring App Controller
- Creating, Deploying and Managing Services

After completing this module, students will be able to:

- Describe private cloud computing.
- Install and configure App Controller.
- Create and manage services and service templates.

Module 7: Monitoring the Private Cloud Infrastructure

This module explains how to monitor the private cloud infrastructure by using System Center 2012 - Operations Manager.

Lessons

- Operations Manager Architecture and Security
- Upgrading Operations Manager 2007 R2
- Configuring Notifications
- Configuring Management Packs
- Configuring Integration with System Center 2012

Lab : Monitoring the Private Cloud Infrastructure

- Deploying Agents
- Deploying and Configuring Monitoring Management Packs
- Configuring Notifications
- Configuring VMM Integration
- Configuring DPM Integration

After completing this module, students will be able to:

- Describe Operations Manager architecture and security considerations.

- Upgrade from Operations Manager 2007 R2 to System Center 2012 – Operations Manager.
- Describe the notification options available in Operations Manager.
- Install, configure, and upgrade management packs.
- Install and configure Operations Manager integration with VMM and DPM.

Module 8: Extending and Customizing Monitoring of the Private Cloud Infrastructure

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

Lessons

- Configuring the SharePoint Server Portal
- Monitoring Templates
- Distributed Application Monitoring

Lab : Extending and Customizing Monitoring

- Creating Custom Monitoring
- Creating a Distributed Application
- Configuring Service Level Management
- Creating Views for Private Cloud Infrastructure
- Configuring SharePoint Integration

After completing this module, students will be able to:

- Integrate Operations Manager data into a SharePoint portal.
- Describe how to use monitoring templates.
- Implement distributed application monitoring.

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

- Service Manager Architecture Overview
- Upgrading to System Center 2012 - Service Manager
- Understanding Service Manager Work Items
- Configuring Service Manager Connectors
- Configuring Service Manager Notifications

Lab : Implementing Service Management for the Private Cloud

- Configuring Service Manager Basic Settings
- Configuring Service Manager Connectors
- Configuring the Self-Service Portal
- Configuring Notifications

After completing this module, students will be able to:

- Setup and configure the core components of Service Manager.
- Plan an upgrade from Service Manager 2010 R2 to System Center 2012 - Service Manager.
- Describe the various work items and their relationships with each other.
- Configure the Service Manager connectors.
- Configure notifications.

Module 10: Protecting the Private Cloud Infrastructure

This module describes how to deploy and configure Data Protection Manager in a private cloud.

Lessons

- Planning DPM Deployment
- DPM Architecture and Components
- Upgrading DPM
- Configuring DPM for the Private Cloud
- Configuring Application Protection for the Private Cloud
- Restoring Applications to the Private Cloud

Lab : Protecting the Private Cloud Infrastructure

- Configuring the Storage Pool
- Deploying DPM Protection Agents
- Creating and Configuring Protection Groups
- Configuring SQL Server Self-Service Recovery
- Restoring Data from a SQL Server Protection Group
- Performing Self-Service Recovery to Recover SQL Server Data

After completing this module, students will be able to:

- Describe Data Protection Manager architecture and security considerations.
- Plan an upgrade from Data Protection Manager 2010 R2 to System Center 2012 - Data Protection Manager.
- Configure the components required to provide protection for the private cloud infrastructure.
- Configure protection of key applications within the private cloud infrastructure.
- Restore key applications within the private cloud infrastructure.

Module 11: Automating and Standardizing the Private Cloud

This module explains how to deploy and configure System Center Orchestrator in a private cloud and integrate it with other System Center 2012 components.

Lessons

- Orchestrator Architecture and Components Overview
- Deploying and Configuring Core Components
- Managing Runbooks
- Configuring Integration Packs

Lab : Automating the Private Cloud

- Creating a Runbook Server and Configuring Integration Packs
- Configuring a Template to Deploy Agents on a New Virtual Machine
- Creating a Runbook to Protect All Resources on a Virtual Machine

After completing this module, students will be able to:

- Describe key components of System Center Orchestrator.
- Describe how to deploy and configure key Orchestrator components in a private cloud.
- Configure the System Center integration packs in Orchestrator.
- Create runbooks.
- Configure Service Manager to execute runbooks.

Module 12: Configuring the Cloud Services Process Pack

This modules describes how to implement the Cloud Services Process Pack and use service level management.

Lessons

- Implementing the Cloud Services Process Pack
- Service Level Management

Lab : Configuring the Cloud Service Process Pack

- Installing the Cloud Service Process Pack
- Configuring User Roles and Settings
- Configuring Service Offerings
- Creating an Incident Request
- Configuring Service Level Management

After completing this module, students will be able to:

- Describe the service catalog and how to implement it in Service Manager.
- Implement a Cloud Services Process Pack.
- Configure service request fulfillment.
- Configure service offerings.
- Use service level management.