

# Configuring and Deploying a Private Cloud

## Exam 70-247

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### Target Student:

Data center administrators responsible for designing, installing and configuring a private cloud infrastructure.

### Prerequisites:

To ensure your success, we recommend:

- Windows Server 2008 R2 experience
- Active Directory Domain Services (AD DS) knowledge
- Microsoft SharePoint
- Windows Server 2008 Hyper-V
- Networking and storage experience
- Familiarity with data center management processes
- Previous work with IT Infrastructure Library (ITIL)
- Previous work with Microsoft Operations Framework (MOF)

### Delivery Method:

Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

### Performance-Based Objectives:

Upon successful completion of this course, students will be able to:

- Produce a high-level design that accounts for requirements for the private cloud environment.
- Produce a high-level design that accounts for requirements for the private cloud environment.
- Configure and deploy the application fabric.
- Configure a PXE server, an update server, and a software update baseline.
- Configure Microsoft Server Application Virtualization (App-V) so that it can be used to sequence and deploy an application virtually.
- Build the core components necessary for delivering services on the fabric.
- Allocate resources to the private cloud and grant access to the private cloud.
- Understand how to monitor the private cloud using Operations Manager.
- Understand the tools necessary to extend and customize Operations Manager for a private cloud environment.
- Set up, configure, and integrate the core components of Service Manager into the private cloud fabric.
- Configure a service catalog, and then publish it to the Self-Service Portal.
- Gain the knowledge necessary to deploy and configure DPM in a private cloud.
- Deploy and configure Microsoft System Center 2012 - Orchestrator in a private cloud, and then integrate it with other System Center 2012 components.

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### Course Content

#### **Module 1: Planning for the Private Cloud**

- Topic 1A: Understanding the Private Cloud
- Topic 1B: Requirements for Deploying a Private Cloud
- Topic 1C: Designing the Private Cloud Infrastructure
- Topic 1D: Overview of System Center 2012 Components
- Topic 1E: Deploying Hyper-V Clustering with VMM
- Lab: Planning for the Private Cloud

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

- Topic 2A: Overview of VMM Architecture and Components
- Topic 2B: Installing and Upgrading VMM
- Topic 2C: Configuring VMM Security and Roles
- Topic 2D: Understanding Host Groups
- Lab: Configuring and Deploying the Private Cloud Infrastructure

#### **Module 3: Extending and Maintaining the Private Cloud Infrastructure**

- Topic 3A: Overview of the PXE and Update Server Roles
- Topic 3B: Deploying Bare-Metal Hyper-V Host Servers
- Topic 3C: Configuring the Update Server Role
- Topic 3D: Creating and Using an Update Baseline
- Lab: Maintaining the Private Cloud Infrastructure

#### **Module 4: Configuring Application Delivery**

- Topic 4A: Dynamic Application Deployment Overview
- Topic 4B: Web Deployment Packages
- Topic 4C: Server Application Virtualization Overview
- Topic 4D: Configuring Server App-V Components
- Topic 4E: Sequencing and Deploying Virtual Applications
- Lab: Configuring Virtual Application Delivery

#### **Module 5: Creating the Private Cloud Building Blocks**

- Topic 5A: Configuring Guest Operating System Profiles
- Topic 5B: Configuring Hardware Profiles
- Topic 5C: Configuring SQL Server Using SQL Server Profiles
- Topic 5D: Configuring Application Profiles
- Topic 5E: Configuring Virtual Machine Templates
- Topic 5F: Configuring the Self-Service User Role
- Lab: Creating the Private Cloud Building Blocks

#### **Module 6: Deploying and Accessing a Private Cloud**

- Topic 6A: Understanding Private Cloud Computing
- Topic 6B: Installing and Configuring App Controller
- Topic 6C: Creating and Managing Services and Service Templates
- Lab: Deploying and Accessing a Private Cloud

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### **Module 7: Monitoring the Private Cloud Infrastructure**

Topic 7A: Operations Manager Architecture and Security  
Topic 7B: Upgrading Operations Manager 2007 R2  
Topic 7C: Configuring Notifications  
Topic 7D: Configuring Management Packs  
Topic 7E: Configuring Integration with System Center 2012  
Lab: Monitoring the Private Cloud Infrastructure

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

Topic 8A: Configuring the SharePoint Server Portal  
Topic 8B: Monitoring Templates  
Topic 8C: Distributed Application Monitoring  
Lab: Extending and Customizing Monitoring

### **Module 9: Implementing Service Management for the Private Cloud**

Topic 9A: Service Manager Architecture Overview  
Topic 9B: Upgrading to System Center 2012 - Service Manager  
Topic 9C: Understanding Service Manager Work Items  
Topic 9D: Configuring Service Manager Connectors  
Topic 9E: Configuring Service Manager Notifications  
Lab: Implementing Service Management for the Private Cloud

### **Module 10: Protecting the Private Cloud Infrastructure**

Topic 10A: Planning DPM Deployment  
Topic 10B: DPM Architecture and Components  
Topic 10C: Upgrading DPM  
Topic 10D: Configuring DPM for the Private Cloud  
Topic 10E: Configuring Application Protection for the Private Cloud  
Topic 10F: Restoring Applications to the Private Cloud  
Lab: Protecting the Private Cloud Infrastructure

### **Module 11: Automating and Standardizing the Private Cloud**

Topic 11A: Orchestrator Architecture and Components Overview  
Topic 11B: Deploying and Configuring Core Components  
Topic 11C: Managing Runbooks  
Topic 11D: Configuring Integration Packs  
Lab: Automating the Private Cloud

### **Module 12: Configuring the Cloud Services Process Pack**

Topic 12A: Implementing the Cloud Services Process Pack  
Topic 12B: Service Level Management  
Lab: Configuring the Cloud Service Process Pack