

# Monitoring and Operating a Private Cloud

## Exam 70-246

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### Course Description:

This course describes how to monitor and operate a private cloud with Microsoft System Center 2012. This course focuses on how to manage and administer the private cloud, and it describes how you can monitor key infrastructure elements and applications that run within the private cloud. It does not discuss planning and implementation, which is covered in 20: Configuring and Deploying a Private Cloud with System Center 2012.

### Target Student:

The primary audience for this course is administrators who create service requests. The secondary audience includes datacenter administrators - who are responsible for providing provisioning for applications including configuring and deploying those applications - application/service business owners, and administrators who implement service requests.

### Prerequisites:

To ensure your success, we recommend:

- Windows Server 2008 R2 experience
- Active Directory Domain Services (AD DS) knowledge
- Networking experience
- Working knowledge of previous versions of System Center products
- Knowledge of configuration of Microsoft SharePoint
- Hyper-V knowledge
- Knowledge of data center management processes
- Storage Area Network (SAN) Knowledge

### 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:

- Describe the private cloud infrastructure.
- Configure and optimize business unit clouds.
- Deploy cloud services.
- Monitor private cloud services.
- Configure application performance monitoring.
- Operate and extend service management in the private cloud.
- Automate incident creation, remediation, and change requests.
- Implement problem management in the private cloud.
- Automate Self-Service provisioning.
- Protect the resources in the private cloud by using Data Protection Manager.
- Configure compliance in the private cloud.
- Configure SLAs, dashboards, and widgets.

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### Course Content

#### **Module 1: Introduction to the Private Cloud**

- Topic 1A: Overview of the Cloud Computing Model
- Topic 1B: Requirements for the Private Cloud
- Topic 1C: Operating a Private Cloud Infrastructure with System Center
- Topic 1D: Maintaining the Health of the Private Cloud
- Topic 1E: Integrating System Center Components
- Topic 1F: Verifying the Compliance of the Private Cloud Infrastructure
- Lab: Verifying the Private Cloud Infrastructure
- Lab: Verifying the Compliance of the Private Cloud Infrastructure

#### **Module 2: Configuring and Optimizing Business Unit Clouds**

- Topic 2A: Overview of System Center Virtual Machine Manager
- Topic 2B: Managing a Virtual Environment with Virtual Machine Manager
- Topic 2C: Creating Business Unit Clouds
- Lab: Configuring and Optimizing Business Unit Clouds

#### **Module 3: Deploying Cloud Services**

- Topic 3A: Overview of Service Templates
- Topic 3B: VMM Profiles
- Topic 3C: Web Deploy Packages
- Topic 3D: Overview of Server App-V
- Topic 3E: Data-Tier Application Packages
- Lab: Importing and Deploying the Stock Trader Application

#### **Module 4: Monitoring Private Cloud Services**

- Topic 4A: Overview of System Center Operations Manager
- Topic 4B: Agent Deployment in Operations Manager
- Topic 4C: Configuring Custom Monitoring
- Topic 4D: Monitoring the Network Infrastructure
- Topic 4E: Monitoring Distributed Applications
- Lab: Monitoring Private Cloud Services

#### **Module 5: Configuring Application Performance Monitoring**

- Topic 5A: Application Performance Monitoring
- Topic 5B: Advanced Monitoring in Application Performance Monitoring
- Topic 5C: Viewing Application Performance in Operations Manager
- Lab: Configuring Application Performance Monitoring

#### **Module 6: Operating and Extending Service Management in the Private Cloud**

- Topic 6A: Overview of Service Manager
- Topic 6B: Configuring Security and User Roles
- Topic 6C: Configuring Work Items
- Topic 6D: Configuring Incident Queues
- Topic 6E: Configuring Service Offerings
- Lab: Operating and Extending Service Management in the Cloud

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### **Module 7: Automatic Incident Creation, Remediation, and Change Requests**

Topic 7A: Overview of System Center Orchestrator 2012

Topic 7B: Integrating Orchestrator with Operations Manager and Service Manager

Lab: Automating Incident Creation, Remediation, and Change Requests

### **Module 8: Problem Management in the Private Cloud**

Topic 8A: Overview of Problem Management

Topic 8B: Creating Custom Rules

Lab: Automating Problem Management in the Private Cloud

### **Module 9: Automating Self-Service Provisioning**

Topic 9A: Installing and Configuring the System Center Cloud Services Process Pack

Topic 9B: Cloud Services Configuration Items

Topic 9C: Cloud Services Request Items

Lab: Automating Self-Service Provisioning

### **Module 10: Private Cloud Protection and Recovery**

Topic 10A: Protecting Data in the Private Cloud

Topic 10B: Recovering Data in the Private Cloud

Lab: Private Cloud Protection and Recovery

### **Module 11: Configuring Compliance in the Private Cloud**

Topic 11A: Overview of the Process Pack for IT GRC

Topic 11B: Installing and Configuring the Process Pack for IT GRC

Topic 11C: Implementing an IT GRC Control Management Program

Topic 11D: Maintaining Compliance through VMM Security Baselines and System Center Advisor

Lab: Configuring Compliance in the Private Cloud

### **Module 12: Configuring SLAs, Dashboards, and Widgets**

Topic 12A: Service Level Tracking

Topic 12B: Configuring and Deploying Widgets and Dashboards

Topic 12C: Publishing Real-Time State with Microsoft Visio Snap-in

Topic 12D: Using Excel and SSRS to View Data

Topic 12E: Overview of PerformancePoint

Lab: Configuring SLAs, Dashboards, and Widgets