

### 5 Days

# 20246D Monitoring and Operating a Private Cloud

The Microsoft Course 20246D Monitoring and Operating a Private Cloud is a five-day training course that focuses on developing skills to manage and administer to a cloud environment on Windows System Center 2012 R2 infrastructure. This course is intended for cloud engineers and administrators who are responsible for managing and protecting cloud infrastructures in their workplaces.

This course describes the cloud model, and various techniques to configure, deploy, and manage private cloud services.

# **Course Details**

## **Course Outline**

#### Module 1: Introduction to the Cloud Model

This module describes the essential business and technical requirements behind choosing a cloud model and the elements it contains.

#### Lessons

- Overview of the Cloud Computing Model
- Requirements for a Private, Public or Cloud
- Operating a Hybrid Cloud Infrastructure with System Center
- Integrating System Center Components
- Maintaining the Health of a Cloud

#### Module 2: Configuring a Private Cloud Environment

This module explains how Microsoft System Center 2012 R2 - Virtual Machine Manager (VMM) plays a pivotal role in the private cloud.

#### Lessons

- Creating Clouds
- System Center 2012 R2 Virtual Machine Manager Overview
- Managing the Virtual Environment with Virtual Machine Manager

#### Module 3: Deploying Cloud Services

This module reviews the key elements that form a service in VMM and how the service is deployed to the private cloud.

#### Lessons

- VMM Profiles
- Overview of Service Templates
- Overview of Server App-V
- Web Deploy Packages
- Deploying Services through App Controller
- Data-Tier Application Packages

#### Module 4: Monitoring Cloud-Based Applications

This module plays an important role in describing how to maintain the underlying infrastructure that the private cloud relies on.

#### Lessons

- System Center 2012 R2 Operations Manager Overview
- Agent Deployment in Operations Manager
- Configuring Custom Monitoring
- Network Infrastructure Monitoring
- Distributed Applications Monitoring

#### Module 5: Configuring Application Performance Monitoring

The module offers the skills to configure APM to monitor the performance and availability of a .NET application.

#### Lessons

- Advanced Monitoring in APM
- Application Performance Monitoring
- Viewing Application Performance Data in Operations Manager

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

This module describes the core features of Service Manager and the security model that supports it.

#### Lessons

- Overview of Service Manager
- Configuring Incident Queues
- Configuring Work Items
- Configuring Service Offerings for a Cloud
- Configuring Security and User Roles

#### Module 7: Automating Incident Creation, Remediation, and Change Requests

This module introduces Orchestrator and also explains the processes to follow when configuring automation between Service and Operations Manager.

#### Lessons

Overview of System Center 2012 R2 Orchestrator

• Integration of Orchestrator with Operations Manager and Service Manager

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

This module describes how a defined set of processes can help reduce the time to resolve problems.

#### Lessons

- Creating Custom Rules
- Overview of Problem Management

#### Module 9: Operating a Self Service, Multi-Tenant Cloud with Windows Azure Pack

This module will cover how to uses the Windows Azure Pack to provide a self-service portal for tenants and administrators.

#### Lessons

- Windows Azure Pack Key Concepts
- Windows Azure Pack Providers
- Administer Windows Azure Pack

#### Module 10: High Availability, Protection, and Recovery for the Cloud

This module covers the skills to manage a highly available cloud Infrastructure using SQL Server 2012 Always-On, Hyper-V Replica and Azure Site Recovery.

#### Lessons

- · High Availability for a Cloud
- Protecting Data in the Private Cloud
- Recovering Data in the Private Cloud

#### Module 11: Optimizing Your Cloud Infrastructure

This module explains how Configuration Manager can be used to provide update management for Virtual Machines hosted in a cloud infrastructure.

#### Lessons

- Use of Virtual Machine Manager to Keep the Cloud Infrastructure Up-to-Date
- Use of Configuration Manager to keep Virtual Machines up-to-date
- Use of System Center Advisor to Optimize Cloud infrastructure
- Use of Pro-Tips to Optimize Cloud infrastructure

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

This module describes the various methodologies within System Center to collect, measure, and scorecard the performance and the private cloud infrastructure availability.

#### Lessons

- System Center Analytics
- Service Level Tracking
- Publishing Real-Time State with Microsoft Visio Snap-in
- Configuring and Deploying Widgets and Dashboards

- Using Excel and SSRS to View Data
- Configuring Service Reporting

### Who Should Attend

This Microsoft Private Cloud training course is intended for cloud administrators who are responsible for designing, installing and configuring a cloud infrastructure.

### Pre Requisite

The cloud administrators should have the prerequisite knowledge in the following areas:

- Microsoft Azure
- Windows Server 2012 experience
- Networking experience.
- Hyper-V knowledge.
- Storage Area Network (SAN) Knowledge
- Knowledge of Active Directory Domain Services (AD DS)
- Knowledge of configuration of Microsoft SharePoint.
- Understanding of cloud and data center management processes.
- Working knowledge of previous versions of System Center products.

### Exams

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