70-246: Monitoring and Operating a Private Cloud with System Center 2012

Course Overview

This course teaches students about System Center 2012, basics of the Cloud, working with the Business Cloud, Cloud services, monitoring, automating responses, managing problems in the Private Cloud, service management in the Private Cloud, Cloud protection, recovery, and compliance, SLAs, dashboards, and widgets, and cleaning up System Center databases.

**Course Introduction**

Course Introduction

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**Module 01 - System Center 2012**

Lesson 1: What is System Center 2012?
Suite of Components
Operations Manager
Configuration Manager
Service Manager
Orchestrator
Data Protection Manager
Virtual Machine Manager
Putting it All Together
Module 01 Review

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**Module 02 - Introducing the Cloud**

Lesson 1: Discussion of Cloud Computing
How Cloud Computing Came About
Differences Between Private and Public Clouds Models
Implementing the Private Cloud
Using System Center 2012 with the Private Cloud
Lesson 2: Important Requirements
Requirements
Onboarding and Services
Administrative Functions
Lesson 3: Working with System Center and the Infrastructure
Using VMM for the Cloud Design
Cloud Management with the VMM
Orchestrator
Lesson 4: Maintaining the Cloud Health
How to Monitor Health and Performance
What Are the Key Indicators?
Lesson 5: How Components are Integrated
Why Integrate SC Components?
How to Make Sure All is Working
Lesson 6: Are You in Compliance?
Compliance
Remediation
Demo - Verifying the Private Cloud Infrastructure
Demo - Verifying System Center Components
Module 02 Review

**Module 03 - Working with the Business Cloud**
Lesson 1: Examining SC 2012 VMM
Introducing VMM
Features of VMM
Securing VMM
Lesson 2: Working with VMs with the VMM
Looking at the Fabric
VMs
Jobs
Working with Settings
Lesson 3: Creating Clouds for Business
The Business Unit
Resources
Capacity
Capabilities
Demo - Configuring and Optimizing Business Unit Clouds
Module 03 Review

**Module 04 - Cloud Services**
Lesson 1: Looking at Service Templates and VMM Profiles
What Constitutes the Service Template
Planning and Preparation of the Service Template
Guest OS Profiles
Hardware Profiles
Application Profiles
SQL Server Profile
Lesson 2: Web Deploy Packages
Describing Web Deploy
How to Install and Create a Package
Connecting Web Deploy to an App Profile
Lesson 3: Server App-V Introduction
Understanding the Server App-V
How to Sequence an Application
Lesson 4: The Data of the N-Tier Application
Describing Data-Tier Application Packages
Using DAC Packages with VMM
Lesson 5: What’s New with VMM R2
VMM R2 Networking
VMs and the Cloud
Fabric
Storage
Services
Module 05 - Monitoring
Lesson 1: Overview of Operations Manager
What is Operations Manager?
User Roles to Secure Operations Manager
Operations Manager Architecture
Deploying Agents Manually and Automatically
Active Directory’s Involvement with Deploying Agents
Lesson 2: Customize the Monitoring Operations
What is a Management Pack?
Monitoring Cloud Components
Lesson 3: Monitoring Application Performance
Types of Applications
Using the APM Template
How APM Monitors Performance and Reliability
Basic Configuration of APM
Lesson 4: Advanced Monitoring
Server Side Monitoring
Server Side Best Practices
Client Side Monitoring
How to Fine Tune APM’s Configuration
Lesson 5: Using Operations Manager for Applications
Applications Monitoring with Operations Manager
What is the Application Advisor?
Application Diagnostics
Lesson 6: Using Operations Manager for the Network
Operations Manager Support Network Devices and Extended Monitoring Capabilities
What Security Issues Should You Think of When Monitoring the Network Infrastructure?
How to Configure Network Device Monitoring
Lesson 7: Using Operations Manager for Distributed Applications
Understanding Distributed Applications
Monitoring Distributed Applications
Viewing Distributed Application Health
Lesson 8: What’s New in Operations Manager 2012 R2
Fabric Monitoring
Microsoft Monitoring Agent
Integrating OM with Development Processes (DevOps)
Support for IPv6
System Center Advisor
Demo - Installing Operations Manager
Demo - Deploying an Agent
Demo - Configuration for Custom Monitoring
Demo - Configuring Basic Monitoring and Application Performance
Module 05 Review
Module 06 - Automating Responses
Lesson 1: Looking at Orchestrator 2012
Orchestrator Components
Orchestrator Integration Packs
Lesson 2: Putting Orchestrator, Operations Manager, and Service Manager Together
Integration with Operations Manager
Integration with Service Manager
Activity Collections
Workflow Controls
Configuring Runbook
Lesson 3: What’s New with Orchestrator 2012 R2
Service Management Automation Web Service
Integration Packs
Demo - Operating and Extending Service Management
Demo - Prerequisites for Automating Self-Service Provisioning
Module 06 Review

Module 07 - Managing Problems in the Private Cloud
Lesson 1: What is Problem Management
Comparing Incidents to Problems
Describing Problem Management
Creating Problem Records with Service Manager
How to Link Problems to Incidents
Lesson 2: Using Custom Rules
Types of Rules
Targeting Rules and Monitors to Applications and Computers
Generating Alerts
Demo - Problem Management in the Private Cloud
Module 07 Review

Module 08 - Service Management in the Private Cloud
Lesson 1: Service Manager Introduction
Introduction to Service Manager
Architecture
Integration with Other SC Components
Operating Service Manager
Lesson 2: Security Settings
User Roles
Run As...
PowerShell Security
Lesson 3: Work Items
Incidents
Problems
Release Records
Lesson 4: Incident Queues and Service Offerings
What is an Incident Queue?
How to Make an Incident Queue
Self-Service Portal
Request Offerings
Lesson 5: What’s New with Service Manager 2012 R2
Demo - Configuring the Incident Template
Module 08 Review

**Module 09 - Cloud Protection, Recovery, and Compliance**

Lesson 1: Protecting and Recovering Data for the Private Cloud
- What is the DPM?
- Deploying Agents
- How to Make a Protection Group
- Verifying Protected Data

Lesson 2: Data Recovery
- Automating Data Recovery
- How to Recover Data Manually
- What Can a User Recover?

Lesson 3: Overview of the Process Pack for IT GRC
- Compliance Management Processes

Lesson 4: Installing the Process Pack for IT GRC
- Preparing and Configuring the Environment for the Process for IT GRC
- Installing and Configuring the Process Pack for IT GRC

Lesson 5: Implementing an IT GRC Control Management Program
- How to Administer the Control Management Program

Lesson 6: How to Maintain Compliance Through VMM Security Baselines with System Center Advisor
- VMM Support of the Software Update Compliance

Lesson 7: What’s New with DPM 2012 R2
- Windows Azure Backup
- Linux Virtual Machine Backup
- Demo - Configuring Manual Protection

Module 09 Review

**Module 10 - SLAs, Dashboards and Widgets**

Lesson 1: Configuring and Deploying Widgets and Dashboards
- Configuring Views
- Host to Configure and Publish a Dashboard

Lesson 2: Real-Time State Using Visio
- Visio Framework
- Visio Diagrams
- Putting Visio Diagrams on SharePoint

Lesson 3: System Center Analytics
- What is SC Analytics?
- Discussion of the SC SM Data Warehouse
- Introducing SC SM Manager Cubes
- Discussion of the SC OM Data Warehouse

Lesson 4: Service Level Tracking
- Describing the Process

SLT
SLT Reporting
Using SharePoint
Lesson 5: Viewing SSRS and Excel to View Data
Standard Reports
Using Excel
Service Manager Analysis Library
Lesson 6: PerformancePoint
Architecture
Dashboard Designer
Demo - Configuring Service Level Tracking
Module 10 Review

Module 11 - Cleaning Up System Center Databases
Lesson 1: Service Manager Groom Settings
Saving Data in the Service Manager Database
Working with the Service Manager Data Warehouse Groom Settings
Operations Manager Groom Settings
Lesson 2: View and Purge Orchestrator Runbook Logs
View Orchestrator Logs
Purging Orchestrator Logs
Demo - Creating an IT GRC Control Management Program
Module 11 Review
Course Closure

Total Duration: 10h 57m