

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.

<u>Course Introduction</u>	3m
Course Introduction	
<u>Module 01 - System Center 2012</u>	31m
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	
<u>Module 02 - Introducing the Cloud</u>	1h 16m
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

47m

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

1h 13m

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

Infrastructure
Demo - Installing SQL Server
Demo - Importing and Deploying the Stock Trader Application
Module 04 Review

Module 05 - Monitoring

2h 1m

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

50m

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

30m

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

44m

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
Change Requests
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

Service Offerings

Lesson 5: What's New with Service Manager 2012 R2

What's New with Service Manager 2012 R2

Demo - Configuring the Incident Template

Module 08 Review

Module 09 - Cloud Protection, Recovery, and Compliance

1h 29m

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

Overview of the Process Pack for IT GRC

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

Creating the 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

System Center Advisor

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

1h 3m

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

30m

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