

## Monitoring and Operating a Private Cloud with System Center 2012

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 10751A: Configuring and Deploying a Private Cloud with System Center 2012.

### Détails

- **Code :** MOPCSC12
  - **Durée :** 5 jours ( 35 heures )
- Public**
- datacenter administrators
  - solution architects
- Pré-requis**
- Storage Area Network (SAN) Knowledge

### Objectifs

- Describe the private cloud infrastructure
- Configure and optimize business unit clouds
- Deploy cloud services
- Monitor private cloud services
- Configure application performance monitoring

### Programme

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

- Lessons
  - Overview of the Cloud Computing Model
  - Requirements for the Private Cloud
  - Operating a Private Cloud Infrastructure with System Center
  - Maintaining the Health of the Private Cloud
  - Integrating System Center Components
  - Verifying the Compliance of the Private Cloud Infrastructure
- Lab : Verifying the Private Cloud Infrastructure
  - Verifying the Infrastructure
  - Verifying System Center Components
- Lab : Verifying the Compliance of the Private Cloud Infrastructure
  - Exercise: Checking Compliance
- After completing this module, students will be able to:
  - Describe the features of a cloud computing model.
  - Describe the requirements for the private cloud.
  - Describe how you can use System Center to monitor and manage the private cloud.
  - Describe how to maintain the health of the private cloud infrastructure.
  - Describe how to integrate System Center components.
  - Verify the compliance of the private cloud infrastructure.

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

- Lessons
  - Overview of System Center Virtual Machine Manager
  - Managing a Virtual Environment with Virtual

- Machine Manager
  - Creating Business Unit Clouds
- Lab : Configuring and Optimizing Business Unit Clouds
  - Configuring Network Resources
  - Creating the Business Unit Cloud
  - Configuring Security
- After completing this module, students will be able to:
  - Describe the core components, key features, architecture, and security features of Virtual Machine Manager, and the role it plays
  - Use Virtual Machine Manager to manage private cloud infrastructure.
  - Describe how to build and configure resources and security for a business unit cloud.

#### Module 3: Deploying Cloud Services

- Lessons
  - Overview of Service Templates
  - VMM Profiles
  - Web Deploy Packages
  - Overview of Server App-V
  - Data-Tier Application Packages
- Lab : Importing and Deploying the Stock Trader Application
  - Deploying a Single Tier Service
  - Configuring Prerequisites
  - Preparing the Stock Trader Service Template
  - Deploying the Service Template
- After completing this module, students will be able to:
  - Create service templates in VMM by using the Service Template Designer.
  - Describe the process of creating VMM profiles.
  - Describe the process of creating Web Deploy packages.
  - Describe the process of sequencing by using Server App-V.

- Describe the process of creating data-tier application packages.

#### Module 4: Monitoring Private Cloud Services

- Lessons
  - Overview of System Center Operations Manager
  - Agent Deployment in Operations Manager
  - Configuring Custom Monitoring
  - Monitoring the Network Infrastructure
  - Monitoring Distributed Applications
- Lab : Monitoring Private Cloud Services
  - Deploying an Agent
  - Configuring Custom Monitoring
  - Creating a Distributed Application Model
  - Detecting and Recovering from a Failure
- After completing this module, students will be able to:
  - Describe the key features of Operations Manager.
  - Describe the architecture of Operations Manager, including databases, management servers, management server pools, consoles,
  - Describe how to secure access to Operations Manager by using User Roles.

#### Module 5: Configuring Application Performance Monitoring

- Lessons
  - Application Performance Monitoring
  - Advanced Monitoring in Application Performance Monitoring
  - Viewing Application Performance in Operations Manager
- Lab : Configuring Application Performance Monitoring
  - Configuring Basic Monitoring in Application Performance Monitoring
  - Customizing the Performance Thresholds
  - Validating Monitoring
  - Creating a Distributed Application Model for the DinnerNow Application
- After completing this module, students will be able to:
  - Describe the core components in APM and the best practices when implementing them.
  - Describe how to implement advanced monitoring features that are available in APM.
  - Describe how to view application performance in Operations Manager.

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

- Lessons
  - Overview of Service Manager
  - Configuring Security and User Roles
  - Configuring Work Items
  - Configuring Incident Queues
  - Configuring Service Offerings
- Lab : Operating and Extending Service Management in the Cloud
  - Configuring Security Roles
  - Configuring Notifications
  - Publishing an Incident Service Offering

- Raising an Incident
- Creating an Approving a Change Request
- Creating an Assigning a Release Record

- After completing this module, students will be able to:
  - Describe Service Manager.
  - Describe configuring security and user roles.
  - Describe configuring work items.
  - Describe configuring incident queues.
  - Describe configuring service offerings.

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

- Lessons
  - Overview of System Center Orchestrator 2012
  - Integrating Orchestrator with Operations Manager and Service Manager
- Lab : Automating Incident Creation, Remediation, and Change Requests
  - Configuring the Incident Template
  - Configuring Incidents That Affect the StockTrader Service
  - Automating Incident Remediation and Change Requests
- After completing this module, students will be able to:
  - Describe the Orchestrator components and the available Integration Packs.
  - Integrate Orchestrator with Operations Manager and Service Manager.

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

- Lessons
  - Overview of Problem Management
  - Creating Custom Rules
- Lab : Automating Problem Management in the Private Cloud
  - Manually Creating a Problem Record
  - Creating a Custom Event Rule in Operations Manager
  - Configuring Automated Problem Record Creation
- After completing this module, students will be able to:
  - Describe problem management.
  - Create custom rules.

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

- Lessons
  - Installing and Configuring the System Center Cloud Services Process Pack
  - Cloud Services Configuration Items
  - Cloud Services Request Items
- Lab : Automating Self-Service Provisioning
  - Completing the Prerequisites for the System Center Cloud Services Process Pack
  - Installing the System Center Cloud Services Process Pack
  - Configuring the System Center Cloud Services Process Pack
  - Deploying a Virtual Machine for StockTrader by using the Cloud Services Process Pack
- After completing this module, students will be able to:

- Describe how to install and configure the System Center Cloud Services Process Pack.
- Describe the various Cloud Services configuration items that make up the System Center Cloud Service Process Pack.
- Describe the various Cloud Services request items that are included in the System Center Cloud Services Process Pack.

## Module 10: Private Cloud Protection and Recovery

- Lessons
  - Protecting Data in the Private Cloud
  - Recovering Data in the Private Cloud
- Lab : Private Cloud Protection and Recovery
  - Configuring Manual Protection and Recovery of Key Service Data
  - Configuring Automatic Protection and Recovery of Key Service Data
  - Monitoring Protection Status
- After completing this module, students will be able to:
  - Configure data protection in the private cloud.
  - Configure data recovery in the private cloud.

## Module 11: Configuring Compliance in the Private Cloud

- Lessons
  - Overview of the Process Pack for IT GRC
  - Installing and Configuring the Process Pack for IT GRC
  - Implementing an IT GRC Control Management Program
  - Maintaining Compliance through VMM Security Baselines and System Center Advisor
- Lab : Configuring Compliance in the Private Cloud
  - Creating an IT GRC Control Management Program
  - Adding Test Results to a Manual Control Activity and View Compliance Reports

- Assigning a Baseline
- After completing this module, students will be able to:
  - Describe the System Center 2012 Process Pack for IT GRC.
  - Describe installing and configuring the Process Pack for IT GRC.
  - Describe implementing an IT GRC Control Management Program.
  - Describe maintaining compliance by using VMM Security Baselines and System Center Advisor.

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

- Lessons
  - Service Level Tracking
  - Configuring and Deploying Widgets and Dashboards
  - Publishing Real-Time State with Microsoft Visio Snap-in
  - System Center Analytics
  - Using Excel and SSRS to View Data
  - Overview of PerformancePoint
- Lab : Configuring SLAs, Dashboards, and Widgets
  - Configuring Service Level Tracking
  - Configuring Service Level Management
  - Configuring Microsoft Excel Analytics
  - Configuring PerformancePoint Analytics
- After completing this module, students will be able to:
  - Describe Service Level Tracking in Microsoft System Center 2012 Operations Manager.
  - Configure and deploy widgets and dashboards.
  - Describe publishing in real time state with Microsoft Visio.
  - Describe using System Center analytics.
  - View data with Microsoft Office Excel and Microsoft SQL Server Reporting Services.
  - Describe using Microsoft PerformancePoint.

## Modalités

- **Type d'action** :Acquisition des connaissances
- **Moyens de la formation** :Formation présentielle – 1 poste par stagiaire – 1 vidéo projecteur – Support de cours fourni à chaque stagiaire
- **Modalités pédagogiques** :Exposés – Cas pratiques – Synthèse
- **Validation** :Exercices de validation – Attestation de stages