

Configuring and Deploying a Private Cloud with System Center 2012

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This course describes private cloud configuration and deployment with Microsoft System Center 2012.

Détails

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| • Code : CDPCS-C12 | Public | Pré-requis |
| • Durée : 4 jours (28 heures) | • Data center administrators | • Previous work with Microsoft Operations Framework (MOF) |

Objectifs

- Produce a high-level design that accounts for requirements for the private cloud environment.
- Configure and deploy the application fabric.
- Configure a PXE server, an update server, and a software update baseline
- Configure Microsoft Server Application Virtualization (App-V) so that it can be used to sequence and deploy an application virtually.
- Build the core components necessary for delivering services on the fabric.

Programme

Module 1: Planning for the Private Cloud

- Lessons
 - Understanding the Private Cloud
 - Requirements for Deploying a Private Cloud
 - Designing the Private Cloud Infrastructure
 - Overview of System Center 2012 Components
 - Deploying Hyper-V Clustering with VMM
- Lab: Planning for the Private Cloud
 - Deploying the Virtual Machine Manager Agent
 - Creating a Hyper-V Host Cluster Using VMM
- After completing this module, students will be able to:
 - Describe the private cloud
 - Describe the requirements for deploying a private cloud
 - Design a private cloud infrastructure
 - Describe the System Center 2012 components
 - Deploy Hyper-V clustering with VMM

Module 2: Configuring and Deploying the Private Cloud with System Center 2012 -Virtual Machine Manager

- Lessons
 - Overview of VMM Architecture and Components
 - Installing and Upgrading VMM
 - Configuring VMM Security and Roles
 - Understanding Host Groups
- Lab: Configuring and Deploying the Private Cloud Infrastructure
 - Reviewing and Configuring Hosts
 - Configuring Host Groups
 - Configuring User Roles and Run As Accounts
 - Configuring the Library
 - Preparing the Private Cloud Infrastructure
 - Deploying a New Virtual Machine
- After completing this module, students will be able to:

- Describe VMM architecture and components.
- Install and upgrade VMM.
- Configure VMM security and roles.
- Understand host groups.

Module 3: Extending and Maintaining the Private Cloud Infrastructure

- Lessons
 - Overview of the PXE and Update Server Roles
 - Deploying Bare-Metal Hyper-V Host Servers
 - Configuring the Update Server Role
 - Creating and Using an Update Baseline
- Lab: Maintaining the Private Cloud Infrastructure
 - Configuring a PXE Server in VMM
 - Configuring a Host Profile
 - Configuring an Update Server Role in VMM
 - Configuring a Software Update Baseline in VMM
- After completing this module, students will be able to:
 - Describe how VMM integrates with WDS and WSUS to provide PXE and Update server roles
 - Describe how to deploy bare-metal Hyper-V host servers
 - Describe how to maintain updates within the VMM infrastructure
 - Configure the Update server role
 - Create and use a software update compliance baseline

Module 4: Configuring Application Delivery

- Lessons
 - Dynamic Application Deployment Overview
 - Web Deployment Packages
 - Server Application Virtualization Overview
 - Configuring Server App-V Components

- Sequencing and Deploying Virtual Applications
- Lab: Configuring Virtual Application Delivery
 - Configuring the Server App-V Sequencer
 - Configuring the Server App-V Agent
 - Sequencing an Application
 - Testing the Server App-V Package Deployment
- After completing this module, students will be able to:
 - Describe dynamic application deployment
 - Create web deployment packages by using the Web Deployment Tool
 - Describe server application virtualization
 - Configure the Server App-V agent and sequencer
 - Sequence and then test a Server App-V virtualized application

Module 5: Creating the Private Cloud Building Blocks

- Lessons
 - Configuring Guest Operating System Profiles
 - Configuring Hardware Profiles
 - Configuring SQL Server Using SQL Server Profiles
 - Configuring Application Profiles
 - Configuring Virtual Machine Templates
 - Configuring the Self-Service User Role
- Lab: Creating the Private Cloud Building Blocks
 - Configuring Profiles
 - Configuring Virtual Machine Templates
 - Configuring a Service Template
 - Configuring a User Role
 - Deploying the StockTrader Application Service
- After completing this module, students will be able to:
 - Configure guest operating system profiles
 - Configure hardware profiles
 - Deploy SQL Server using SQL Server profiles
 - Configure application profiles for a deployment
 - Configure virtual machine templates
 - Configure the self-service user role

Module 6: Deploying and Accessing a Private Cloud

- Lessons
 - Understanding Private Cloud Computing
 - Installing and Configuring App Controller
 - Creating and Managing Services and Service Templates
- Lab: Deploying and Accessing a Private Cloud
 - Creating and Configuring a Private Cloud
 - Configuring App Controller
 - Creating, Deploying and Managing Services
- After completing this module, students will be able to:
 - Describe private cloud computing
 - Install and configure App Controller
 - Create and manage services and service templates

Module 7: Monitoring the Private Cloud Infrastructure

- Lessons
 - Operations Manager Architecture and Security
 - Upgrading Operations Manager 2007 R2
 - Configuring Notifications
 - Configuring Management Packs
 - Configuring Integration with System Center 2012

- Lab: Monitoring the Private Cloud Infrastructure
 - Deploying Agents
 - Deploying and Configuring Monitoring Management Packs
 - Configuring Notifications
 - Configuring VMM Integration
 - Configuring DPM Integration
- After completing this module, students will be able to:
 - Describe Operations Manager architecture and security considerations
 - Upgrade from Operations Manager 2007 R2 to System Center 2012 – Operations Manager
 - Describe the notification options available in Operations Manager
 - Install, configure, and upgrade management packs
 - Install and configure Operations Manager integration with VMM and DPM

Module 8: Extending and Customizing Monitoring of the Private Cloud Infrastructure

- Lessons
 - Configuring the SharePoint Server Portal
 - Monitoring Templates
 - Distributed Application Monitoring
- Lab: Extending and Customizing Monitoring
 - Creating Custom Monitoring
 - Creating a Distributed Application
 - Configuring Service Level Management
 - Creating Views for Private Cloud Infrastructure
 - Configuring SharePoint Integration
- After completing this module, students will be able to:
 - Integrate Operations Manager data into a SharePoint portal
 - Describe how to use monitoring templates
 - Implement distributed application monitoring

Module 9: Implementing Service Management for the Private Cloud

- Lessons
 - Service Manager Architecture Overview
 - Upgrading to System Center 2012 – Service Manager
 - Understanding Service Manager Work Items
 - Configuring Service Manager Connectors
 - Configuring Service Manager Notifications
- Lab: Implementing Service Management for the Private Cloud
 - Configuring Service Manager Basic Settings
 - Configuring Service Manager Connectors
 - Configuring the Self-Service Portal
 - Configuring Notifications
- After completing this module, students will be able to:
 - Setup and configure the core components of Service Manager
 - Plan an upgrade from Service Manager 2010 R2 to System Center 2012 – Service Manager
 - Describe the various work items and their relationships with each other
 - Configure the Service Manager connectors.

- Configure notifications

Module 10: Protecting the Private Cloud Infrastructure

- Lessons
 - Planning DPM Deployment
 - DPM Architecture and Components
 - Upgrading DPM
 - Configuring DPM for the Private Cloud
 - Configuring Application Protection for the Private Cloud
 - Restoring Applications to the Private Cloud
- Lab: Protecting the Private Cloud Infrastructure
 - Configuring the Storage Pool
 - Deploying DPM Protection Agents
 - Creating and Configuring Protection Groups
 - Configuring SQL Server Self-Service Recovery
 - Restoring Data from a SQL Server Protection Group
 - Performing Self-Service Recovery to Recover SQL Server Data
- After completing this module, students will be able to:
 - Describe Data Protection Manager architecture and security considerations.
 - Plan an upgrade from Data Protection Manager 2010 R2 to System Center 2012 – Data Protection Manager.
 - Configure the components required to provide protection for the private cloud infrastructure.
 - Configure protection of key applications within the private cloud infrastructure.
 - Restore key applications within the private cloud infrastructure.

Module 11: Automating and Standardizing the Private Cloud

- Lessons
 - Orchestrator Architecture and Components Overview

- Deploying and Configuring Core Components
- Managing Runbooks
- Configuring Integration Packs

- Lab: Automating the Private Cloud
 - Creating a Runbook Server and Configuring Integration Packs
 - Configuring a Template to Deploy Agents on a New Virtual Machine
 - Creating a Runbook to Protect All Resources on a Virtual Machine
- After completing this module, students will be able to:
 - Describe key components of System Center Orchestrator.
 - Describe how to deploy and configure key Orchestrator components in a private cloud.
 - Configure the System Center integration packs in Orchestrator.
 - Create runbooks.
 - Configure Service Manager to execute runbooks.

Module 12: Configuring the Cloud Services Process Pack

- Lessons
 - Implementing the Cloud Services Process Pack
 - Service Level Management
- Lab: Configuring the Cloud Service Process Pack
 - Installing the Cloud Service Process Pack
 - Configuring User Roles and Settings
 - Configuring Service Offerings
 - Creating an Incident Request
 - Configuring Service Level Management
- After completing this module, students will be able to:
 - Describe the service catalog and how to implement it in Service Manager.
 - Implement a Cloud Services Process Pack.
 - Configure service request fulfillment.
 - Configure service offerings.
 - Use service level management.

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