

## Course 10965B:

# IT Service Management with System Center Service Manager

### Course Details

### Course Outline

#### Module 1: Service Management Overview

Effective IT Service Management includes process-driven methodologies that cover a broad spectrum of IT functions. This can include change management, incident and problem management and release management. Although no organization typically adopts any single IT Service Management methodology most organizations, depending on their size and nature of business will adopt a combination of processes and functions from many different IT Service Management frameworks such as ITIL (IT Infrastructure Library) or MOF (Microsoft Operations Framework).

In this module you will learn many of the ITIL and MOF best practices and procedures in delivering effective IT Service Management and how System Center 2012 R2 Service Manager can be used to implement them in your organization.

#### Lessons

- Business Drivers Behind IT Service Management
- Introduction to Microsoft System Center 2012 R2
- System Center 2012 R2 Service Manager Overview and Key Features
- Adopting ITIL/MOF Best Practices with Service Manager

#### Lab : IT Service Management and ITIL/MOF

- IT Processes found in ITIL and MOF

After completing this module, students will be able to:

- Describe the business drivers behind IT Service Management
- Describe, at a high-level, System Center 2012 R2
- Describe, at a high level, System Center 2012 R2 Service Manager
- Describe how Service Manager adopts best practices found in ITIL and MOF

#### Module 2: Installing System Center 2012 R2 Service Manager

Before installing System Center 2012 R2 Service Manager in any environment there are many factors that you need to consider. Firstly, you need to understand your current IT environment. This includes how many users and computers are in the environment, how many Incidents and Change Requests are raised on a weekly/monthly basis and how many Analysts will be using the Service Manager Console. This information is critical in planning a successful deployment of Service Manager as it will be used to determine the hardware required for the various Service Manager components. Service Manager relies on Microsoft SQL Server to store its operational and data warehouse databases so careful consideration should also be given to the configuration of SQL Server when deploying Service Manager. This includes the disk subsystem, memory and database collation. In this module you will learn the key component and architecture of Service Manager including the hardware and software requirements. You will also learn the security requirements and considerations that should be taken into account before, during and after deploying Service Manager. You will learn how to install the various components of Service Manager including where components can and cannot be shared on the same computer. Finally you will learn how to upgrade an existing System Center Service Manager 2010 environment to System Center 2012 Service Manager.

### **Lessons**

- System Center 2012 R2 Service Manager Architecture and Core Components
- Hardware, Software and Security Requirements
- Planning and Sizing a System Center 2012 R2 Service Manager Deployment
- Installing System Center 2012 R2 Service Manager
- Installing and Configuring the Service Manager Self-Service Portal
- Overview of the Service Manager Console
- Upgrading to System Center 2012 Service Manager

### **Lab : Installing System Center 2012 R2 Service Manager**

- Install the Service Manager Management Group
- Install the Data Warehouse Management Group and Register the Service Manager Management Group with the Data Warehouse Management Group
- Install and configure the Service Manager Self-Service Portal and confirm a successful installation

### **Lab : Upgrading to System Center 2012 Service Manager**

- Backup the Service Manager 2010 Environment
- Upgrade Service Manager 2010 to System Center 2012 Service Manager

After completing this module, students will be able to:

- Describe the System Center 2012 R2 Service Manager Architecture and Core Components.
- Describe the Hardware, Software and Security requirements of System Center 2012 R2 Service Manager.

- Plan and Size a System Center 2012 R2 deployment.
- Install System Center 2012 R2 Service Manager.
- Install and configure the Service Manager Self-Service Portal.
- Use the Service Manager Console to confirm a successful deployment.
- Upgrade Service Manager 2010 to System Center 2012 Service Manager.

### **Module 3: Key Concepts and Features**

Before you start to configure Service Manager to meet your requirements it is important that you understand some of the key concepts and features found in the Service Manager Console. This includes Management Packs that are used to store Service Manager Items such as queues, views and groups. You should understand the concept of work items and configuration items including how they can be created and modified in Service Manager. In this lesson you will learn many of the key features and concepts that will help you understand how to configure important functions in Service Manager.

#### **Lessons**

- Overview of Management Packs
- Overview of the Service Manager CMDB
- Managing Activities
- Managing Workflows
- Managing Templates
- Security and User Roles

#### **Lab : Configuring Service Manager for StockTrader and DinnerNow**

- Create a StockTrader and DinnerNow Management Pack
- Create the DinnerNow Configuration Items

After completing this module, students will be able to:

- Describe Management Packs.
- Describe the Service Manager CMDB.
- Manage Activities.
- Manage Workflows.
- Manage Templates.
- Manage Security and User Roles in Service Manager.

### **Module 4: Configuring Service Manager For Your Environment**

After installing Service Manager in your environment there will be number of initial configuration

tasks that should be performed in order to customize it to your environment and your needs. For example, you can edit the Incident settings and configure the Priority Calculation that should be applied to Incidents when they are created in Service Manager based on the Urgency and Impact applied to an Incident. This provides a method of measuring Service Level Agreements with Incidents. In this module you will learn some of the key configuration tasks that should be performed in Service Manager in order to customize it for your environment.

#### **Lessons**

- System Center 2012 R2 Service Manager Initial Configuration
- Configuring Business Services
- Configuring Access for your Support Teams
- Configuring Notifications

#### **Lab : Configuring Service Manager for Your Environment**

- Configuring Service Manager Settings
- Importing a Distributed Application Diagram from Operations Manager
- Provisioning access for the DinnerNow and StockTrader Support Teams
- Configuring Notifications

After completing this module, students will be able to:

- Perform initial configuration tasks in Service Manager.
- Configure Business Services.
- Configure Access for your support teams.
- Configure Notifications.

#### **Module 5: Integrating Service Manager with the Hybrid Cloud**

Connectors in Service Manager provide a key function in populating the Service Manager CMDB. For example, the Operations Manager CI Connector imports discovered objects such as web sites and databases into Service Manager so that they can be added to work items such as Incidents and Change Requests. In addition to the Active Directory and System Center Connectors and Exchange Connector can also be installed in Service Manager to provide integration with Microsoft Exchange Server and allow features such as creating an Incident from an email to be performed. It is important that you understand how to configure these Connectors so that important information relating to your IT environment can be represented in Service Manager appropriately.

#### **Lessons**

- Integrating Service Manager with Active Directory and other System Center Components
- Integrating Service Manager with Exchange

#### **Lab : Configuring Connectors in Service Manager**

- Configure Active Directory and System Center Connectors
- Configure the Exchange Connector

After completing this module, students will be able to:

- Configure the Active Directory and System Center Connectors in Service Manager.
- Install and configure the Exchange Connector in Service Manager.

## **Module 6: Managing Incidents and Problems**

Incident and Problem management are two key functions that form part of any Service Management solution. Not only should you understand how Incidents and Problems are configured and managed you also need to understand what constitutes an Incident or a Problem. In this module you will learn how to differentiate an issue that occurs in the IT environment between an Incident and a Problem. You will also learn how to configure Incidents and Problems which includes creating Templates that can be used to auto-populate Incident forms. Finally you will learn how Service Manager Queues and Views can be created to filter Incidents and Problems. These can then be used when configuring User Roles to restrict what Incidents and Problems analysts can view and work on in the Service Manager Console.

### **Lessons**

- The Definition of an Incident and a Problem
- Managing Incidents
- Managing Problems
- Using Queues and Views with Incidents and Problems

### **Lab : Configuring Incident and Problem Management**

- Create an Incident using the Service Manager Console
- Create an Incident Template
- Using Incident Templates
- Configuring an Incident Event Workflow to automatically update an Incident
- Group Incidents and create a Problem Record
- Create Queues and Views to filter Incidents

After completing this module, students will be able to:

- Describe the definition of an Incident and a Problem
- Manage Incidents
- Manage Problems
- Use Queues and Views with Incidents and Problems

## **Module 7: Managing Changes and Releases**

When changes need to occur in the IT environment it is important that they are managed appropriately. The goal of Change Management as described by ITIL is to “ensure that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of change-related incidents upon service quality, and consequently to improve the day-to-day operations of the organization”. In this module you will learn how Service Manager manages changes in the IT environment by using Change Requests. This includes creating and managing Activities such as Review Activities that are used to approve or reject changes. You will also learn how Release Records are used to group, schedule and develop approved changes.

### **Lessons**

- Managing Change Requests
- Managing Release Records

### **Lab : Configuring Change and Release Management**

- Create a Change Request with Review Activities
- Approve the Change Request
- Create a Release Record to control a software update deployment for the StockTrader and DinnerNow application servers
- Link Manual Activities within the Release Record to Dependent Activities in the Change Request
- Configure Release Record Workflow Rules for Notifications

After completing this module, students will be able to:

- Manage Change Requests in Service Manager
- Manage Release Records in Service Manager

### **Module 8: Configuring and Managing the Service Catalog**

Service Request fulfillment is a key function in the Service Management framework. By providing Service Request fulfillment you can align your IT and business strategy and ensure that you deliver business value with IT services. Service Manager provides Service Request fulfillment by using best practice methodologies from both Microsoft Operations Framework (MOF) 4.0 and Information Technology Infrastructure Library (ITIL) V3.

In this module you will learn all aspects of Service Request fulfillment within Service Manager with the exception of Service Level Management which is covered in Module 10.

### **Lessons**

- The Service Catalog, Request Offerings and Service Offerings
- Managing Service Requests and Catalog Groups
- The Self-Service Portal

### **Lab : Configuring Service Requests**

- Create the Contoso Request Offering
- Test the Contoso Request Offering
- Create the StockTrader Request Offerings
- Test the StockTrader Request Offerings

After completing this module, students will be able to:

- Describe the Service Catalog, Request Offerings and Service Offerings.
- Manage Service Requests and Catalog Groups.
- Use the Self-Service Portal.

## **Module 9: Automating Business Processes with Orchestrator**

When Service Manager and Orchestrator have been integrated the ability to automate business processes in Service Manager is made available. Orchestrator can be used to create, update and manage items in Service Manager and Service Manager can be used to initiate Orchestrator Runbooks. A typical example of automating a business process with Orchestrator would be using it to automatically create a Problem Record in Service Manager when a number of related Incidents have been created. Orchestrator would monitor the Incidents in Service Manager and when a defined number of related Incidents have been created it would create a Problem Record and automatically associate the related Incidents to it. In this module you will learn how Orchestrator and Service Manager can be used to automate business processes.

### **Lessons**

- Configuring Integration between Orchestrator and Service Manager
- Configuring Runbooks in Orchestrator
- Configuring Runbook Automation Activity Templates in Service Manager
- Creating a Request Offering in Service Manager to Initiate a Runbook in Orchestrator

### **Lab : Automating the Contoso and StockTrader Service Offerings**

- Automating the Request Offering for Contoso
- Automating the Request Offerings for StockTrader

### **Lab : Automating Business Processes with Orchestrator**

- Creating a Change Request to approve the restart of the application server
- Configure a Runbook Automation Activity
- Approving the Change Request and confirming the application server is restarted

After completing this module, students will be able to:

- Configure integration between Orchestrator and Service Manager.
- Configure a Runbook in Orchestrator to monitor a Change Request in Service Manager.

- Configure Runbook Automation Activity templates in Service Manager.
- Create a Request Offering in Service Manager that initiates a Runbook in Service Manager.

## **Module 10: Configuring Service Level Management**

As defined by ITIL the mission statement for Service Level Management is “Plan, coordinate, negotiate, report and manage the quality of IT services at acceptable cost”. To provide effective Service Level Management a number of key activities must be undertaken. In addition to this, an ongoing activity to improve IT services is maintained. This not only helps ensure that service levels are being met but also ensures the business or businesses are satisfied with the level of service they are receiving.

In this module you will learn how Service Level Management is implemented in Service Manager.

### **Lessons**

- Configuring Service Level Management
- Viewing SLA information in Service Manager

### **Lab : Configuring Service Level Management**

- Create a Service Level Objective for an Incident SLA
- Create a Service Level Objective for a Service Request SLA
- Configure SLA Notifications

After completing this module, students will be able to:

- Configure Service Level Management.
- View SLA information in Service Manager.

## **Module 11: Using Reports and Analyzing Data in Service Manager**

Reporting in any IT Service Management solution is a key function that provides a wealth of information. From analyzing Incident trends to reporting on Software Update compliance, data stored in the reporting data warehouse provides a historical view of how your business environment has performed. Service Manager provides a number of standard reports that become available once data from the Service Manager database has been extracted and prepared in the Service Manager Data Warehouse. To facilitate this, a number of Data Warehouse Jobs are used to extract, transform and load the data into the Data Warehouse so that it can be used in reports. It is important you understand how these data warehouse jobs operate including how to troubleshoot jobs that have failed. Similarly, there are a number of OLAP Cubes that can be used to perform advanced analytics on data that has been collected in the data warehouse. It is important you understand how these cubes are processed including how to analyze cube data in Microsoft Excel and Microsoft SharePoint. In this module you will learn how to run reports in Service Manager including how to manage and maintain the data warehouse jobs and cubes on which reports rely on. Additionally you will learn how to perform advanced analytics on cube data by using Excel and SharePoint.

### **Lessons**



- Running Reports in System Center 2012 R2 Service Manager
- Configuring and Running Data Warehouse Jobs
- Troubleshooting failed Data Warehouse Jobs
- Data Warehouse Cubes

#### **Lab : Configuring Reports and Analyzing Service Manager Data**

- Configuring, Running and Exporting Reports
- Configuring Data Warehouse Job Schedules
- Viewing the Status of Data Warehouse Jobs
- Managing the Analysis Library
- Analyzing Cube Data

After completing this module, students will be able to:

- Run reports in Service Manager.
- Configure and run Data Warehouse Jobs.
- Troubleshoot Data Warehouse Jobs.
- Describe the Data Warehouse Cubes in Service Manager.

#### **Module 12: Advanced Troubleshooting and Disaster Recovery**

Over time there may be the need to troubleshoot your Service Manager environment and perform disaster recovery tasks such as restoring the Service Manager databases or recovering from a failed Management Server. In these scenarios it is important that you understand what tools are available to troubleshoot Service Manager and what actions you should take to recover from a disaster. As an example consider the following scenario. Change Managers have reported that when they attempt to approve a Change Request the Approval Activity status does not change to Completed state. Instead the status stays in an In Progress state. In this scenario you should review the status of the Workflows in Service Manager and review the log files for the relevant activity. In this module you will learn some of the advanced troubleshooting techniques that are used to resolve problems in Service Manager. You will also learn how to perform disaster recovery for failed Service Manager components such as the Service Manager databases.

#### **Lessons**

- Performing advanced troubleshooting in Service Manager
- Performing Disaster Recovery in Service Manager

#### **Lab : Performing Disaster Recovery in Service Manager**

- Recovering from a failed Service Manager Management Server
- Recovering from a failed Service Manager Data Warehouse Management Server

- Recovering from a failed Service Manager database

After completing this module, students will be able to:

- Perform advanced troubleshooting in Service Manager
- Perform disaster recovery in Service Manager

### **Module 13: Creating Custom Forms and Items in Service Manager**

In most cases the out-of-box forms that are included with Service Manager will be sufficient for your day-to-day IT Service Management requirements. However, in some cases you may find the need to create a custom form that is used to collect information that is not currently possible with the existing forms. As an example of this you may have an in-house line of business application that you want to manage with Service Manager. There may be a number of components in the application that you want to represent in a form when creating an Incident. In this scenario you can use the Service Manager Authoring Console to create a custom form based on the default Incident form and then customize it with controls such as a label or text box. You can then save this customized form in a new Management Pack for use in Service Manager. In this final module you will learn how to use the Service Manager Authoring Console to create customized forms in Service Manager.

#### **Lessons**

- Key Concepts in creating customized forms
- Creating a Customized form using the Authoring Console

#### **Lab : Creating Customized forms using the Authoring Console**

- Creating a Customized Incident Form
- Creating a new Configuration Item and Form to record laptop computer information

After completing this module, students will be able to:

- Describe the key concepts in creating customized forms in Service Manager.
  - Create a customized form using the Authoring Console.
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