Course 20415B:

Implementing a Desktop Infrastructure

Course Details

Course Outline

Module 1: Assessing and Determining Desktop Deployment Options

This module describes the enterprise desktop lifecycle and explains how you can assess hardware and infrastructure readiness. The module then describes how to identify and select the most appropriate deployment option based upon organizational requirements.

Lessons

- Overview of the Enterprise Desktop Life Cycle

- Assessing Hardware and Infrastructure Readiness for a Desktop Deployment

- Using MAP to Assess Deployment Readiness

- Overview of Enterprise Desktop Deployment Methods

- Volume Activation Technologies for Enterprise Desktops

Lab : Assessing and Determining Desktop Deployment Options

- Planning a Desktop Deployment Strategy

- Collecting Infrastructure Data

- Implementing a Volume Activation Solution

After completing this module, students will be able to:
- Describe the enterprise desktop life cycle.

- Explain how to assess hardware and infrastructure readiness for a desktop deployment.

- Describe how to use MAP to assess deployment readiness.

- Describe the available methods for deploying enterprise desktops.

- Describe volume activation technologies for enterprise desktops.

Module 2: Planning An Image Management Strategy

This modules describes Windows image formats and helps you to define an efficient image management strategy based upon business requirements.

Lessons

- Overview of Windows Image Format

- Overview of Image Management

Lab : Planning an Image Management Strategy

- Assessing Business Requirements to Support an Image Management Strategy

After completing this module, students will be able to:
- Describe image formats used for Windows desktop deployments.

- Determine the type and content of images used in an image management strategy.

Module 3: Implementing Desktop Security

This module describes how to deploy and manage a secure desktop by implementing centralized policies, BitLocker settings, and Encrypted File System (EFS) settings.

Lessons

- Implementing a Centralized Desktop Security Solution

- Planning and Implementing BitLocker

- Planning and Implementing EFS

Lab : Configuring Desktop Security

- Configuring Desktop Security by Using Group Policy

- Configuring Drive Encryption by Using BitLocker and MBAM

Lab : Configuring File Encryption by Using EFS

- Implementing a Centrally Managed EFS Solution

- Verifying EFS Document Recovery

After completing this module, students will be able to:
- Implement a centralized secure desktop solution by using Group Policy settings.

- Plan and implement device encryption by using BitLocker.

- Plan and implement a centrally managed EFS solution to secure files and folders on enterprise desktops.

Module 4: Capturing and Managing a Desktop Operating System Image

This module describes how to use the Windows Assessment and Deployment Kit (ADK) and Windows Deployment Services (WDS) to create, capture, and manage a desktop operating system image.

Lessons

- Overview of Windows ADK

- Managing Windows PE

- Building a Reference Image by Using Windows SIM and Sysprep

- Capturing and Servicing a Reference Image

- Configuring and Managing Windows DS

Lab : Preparing the Imaging and the Windows PE Environment

- Installing Windows ADK

- Configuring a Custom Windows PE Environment

Lab : Building a Reference Image by Using Windows SIM and Sysprep

- Building a Custom Answer File Using Windows SIM

- Installing a Reference Computer by Using a Custom Answer File

- Generalizing a Reference Computer by Using Sysprep

Lab : Capturing and Servicing a Reference Image

- Capturing a Reference System Image

- Servicing a Reference System Image

Lab : Configuring and Managing Windows DS

- Planning the Windows Deployment Services Environment

- Installing and Configuring the Windows Deployment Services Server Role

- Capturing a Reference Image by Using Windows DS

- Deploying an Image by Using Windows DS

After completing this module, students will be able to:
- Identify the purpose and key features of the Windows ADK.

- Describe the Windows PE environment and how it can be customized to address specific image and deployment requirements.

- Describe the Windows Setup and preparation process and how it can be modified using answer files created with Windows SIM and the Sysprep utility.

- Use DISM to capture and service a reference image.

- Configure and manage Windows DS to help support an image capture and deployment solution.

Module 5: Planning and Implementing User State Migration

This modules describes how to use the User State Migration Tool (USMT) to migrate appropriate

user data and settings to a new desktop operating system.

Lessons

- Overview of User State Migration

- Planning User State Migration by Using USMT

- Migrating User State by Using USMT

Lab : Planning and Implementing User State Migration

- Planning for User State Migration

- Creating and Customizing the USMT XML Files

- Capturing and Restoring User State by Using USMT

Lab : Migrating User State by Using Hard-Link Migration

- Performing a Hard-Link Migration by Using USMT

After completing this module, students will be able to:

- Describe user state migration.

- Plan user state migration.

- Migrate user state by using the USMT.

Module 6: Planning and Deploying Desktops Using the Microsoft Deployment Toolkit

This module describes how to use the Microsoft Deployment Toolkit (MDT) 2012 to deploy Windows operating systems in lite touch installation scenarios.

Lessons

- Planning for the LTI Environment

- Implementing MDT 2012 for LTI

- Integrating Windows DS with MDT

Lab : Planning and Deploying Desktops by Using MDT

- Planning for the MDT LTI Environment

- Installing MDT 2012 and Prerequisites

- Creating and Configuring the MDT 2012 Deployment Share

- Deploying and Capturing a Reference Operating System Image

- Integrating Windows DS with MDT 2012 To Provide PXE-Boot Capabilities

After completing this module, students will be able to:

- Plan for the LTI environment.

- Implement MDT 2012 for LTI.

- Integrate Windows Deployment Services (DS) with the MDT 2012.

Module 7: Planning and Deploying Desktops by Using System Center 2012 Configuration Manager

This describes how to use System Center 2012 Configuration Manager to implement a zero touch installation for deploying enterprise desktops.

Lessons

- Planning the ZTI Environment

- Preparing the Site for Operating System Deployment

- Building a Reference Image by Using a Configuration Manager Task Sequence

- Deploying Client Images by Using MDT Task Sequences

Lab : Preparing the Environment for Operating System Deployment

- Planning the Operating System Deployment Infrastructure

- Preparing the ZTI Environment

- Configuring the Deployment Packages and System Images

Lab : Performing a Zero-Touch Installation by Using MDT and Configuration Manager

- Performing a ZTI

After completing this module, students will be able to:
- Plan the ZTI environment.

- Prepare the site for operating system deployment.

- Build a reference image by using a Configuration Manager task sequence.

- Deploy client images by using MDT task sequences.

Module 8: Planning and Implementing a Remote Desktop Services Infrastructure

This module describes how to plan and implement session virtualization deployment and a virtual desktop infrastructure (VDI) based upon Windows Server 2012 Remote Desktop Services.

Lessons

- Overview of Remote Desktop Services

- Planning the Remote Desktop Services Environment

- Configuring a Virtual Machine–Based Desktop Infrastructure Deployment

- Configuring a Session-Based Desktop Deployment

- Extending the Remote Desktop Services Environment to the Internet

Lab : Planning and Implementing a Remote Desktop Services Infrastructure

- Planning the Remote Desktop Services Environment

- Configuring a Virtual Machine-Based Desktop Infrastructure Scenario

- Configuring a Session-Based Desktop Scenario

- Configuring the RD Gateway Role Service

After completing this module, students will be able to:
- Describe Remote Desktop Services.

- Plan the Remote Desktop Services environment.

- Configure a virtual machine–based desktop deployment.

- Configure a session-based desktop deployment.

- Extend the Remote Desktop Services environment to the Internet.

Module 9: Managing User State Virtualization For Enterprise Desktops

This module describes how to plan and configure user state virtualization to provide a consistent desktop client experience.

Lessons
- Overview of User State Virtualization

- Planning User State Virtualization

- Configuring Roaming Profiles, Folder Redirection, and Offline Files

- Implementing UE-V

Lab : Managing User State Virtualization for Enterprise Desktops

- Planning User State Virtualization

- Implementing User State Virtualization

After completing this module, students will be able to:
- Describe User State Virtualization.

- Plan User State Virtualization.

- Configure roaming profiles, Folder Redirection, and Offline Files.

- Implement UE-V.

Module 10: Planning and Implementing an Updates Infrastructure to Support Enterprise Desktops

Students will be able to plan and implement an updates infrastructure to support both physical and virtual enterprise desktops.

Lessons

- Planning an Updates Infrastructure for the Enterprise

- Supporting Software Updates with System Center 2012 Configuration Manager

- Managing Updates for Virtual Machines and Images

- Using Windows Intune for Managing Software Updates

Lab : Planning and Implementing an Updates Infrastructure to Support Enterprise Desktops

- Planning an Updates Infrastructure

- Preparing a System Center 2012 Configuration Manager Site to Support Software Updates

- Determining Software Update Compliance

- Deploying Software Updates to Clients

After completing this module, students will be able to:

- Describe considerations and methods for implementing an enterprise-based updates infrastructure.

- Describe how to use Microsoft System Center 2012 Configuration Manager to deploy and manage software updates.

- Describe how to manage software updates for virtual machines and images.

- Describe how to configure Windows Intune to deploy and manage software updates.

Module 11: Protecting Enterprise Desktops from Malware and Data Loss

This module describes how to use System Center technologies such as Endpoint protection and Data Protection Manager (DPM) to protect enterprise desktops from malware and data loss.

Lessons

- Overview of System Center 2012 Endpoint Protection

- Configuring System Center 2012 Endpoint Protection Client Settings and Monitoring Status

- Using Windows Intune Endpoint Protection

- Protecting Desktops by Using DPM

Lab : Implementing Client Endpoint Protection

- Configuring the Endpoint Protection Point

- Configuring and Deploying Endpoint Protection Polices

- Configuring Client Settings to Support Endpoint Protection

- Monitoring Endpoint Protection

Lab : Configuring Data Protection for Client Computer Data

- Configuring and Verifying Client Data Protection

After completing this module, students will be able to:
- Describe System Center 2012 Endpoint Protection.

- Explain how to configure System Center 2012 Endpoint Protection client settings and monitoring status.

- Describe how to use Windows Intune Endpoint Protection.

- Describe how to protect desktops by using DPM.

Module 12: Monitoring the Performance and Health of the Desktop Infrastructure

This module describes how to identify and monitor relevant services and components to ensure the health and performance of the enterprise desktop infrastructure.

Lessons

- Performance and Health Monitoring for the Desktop Infrastructure

- Monitoring VDI

Lab : Monitoring the Performance and Health of the Desktop Infrastructure

- Configuring Performance and Reliability Monitoring of Desktops

- Configuring Operations Manager for Monitoring Virtual Environments

After completing this module, students will be able to:
- Monitor the health and performance of the desktop infrastructure.

- Monitor the VDI.