20415B: IMPLEMENTING A DESKTOP INFRASTRUCTURE

DURATION
5 days

INTRODUCTION
This instructor-led course provides you with the skills and knowledge needed to plan, design, and implement a Windows 8 desktop infrastructure. The course provides guidance on planning and deploying desktops by using several technologies such as User State Migration Tool (USMT), Microsoft Deployment Toolkit (MDT), Virtual Desktop Infrastructure (VDI), and more. Additionally, the course describes how to protect desktops and monitor their health and performance.

AT COURSE COMPLETION
After completing this course, students will be able to:
- Assess and determine desktop deployment options.
- Plan an image management strategy.
- Implement desktop security.
- Capture and manage a desktop operating system image.
- Plan and implement User State Migration.
- Plan and deploy desktops by using the Microsoft Deployment Toolkit.
- Plan and deploy desktops by using System Center 2012 Configuration Manager.
- Plan and implement a Remote Desktop Services infrastructure.
- Manage user state virtualization for enterprise desktops.
- Protect enterprise desktops from malware and data loss.
- Monitoring the performance and health of the desktop infrastructure.

PREREQUISITES
Before attending this course, students must have:
- Solid understanding of TCP/IP and networking concepts
- Solid knowledge of Windows and Active Directory Domain Services (AD DS)—for example, domain user accounts, domain vs. local user accounts, user profiles, and group membership
- Good understanding of scripts and batch files
- Solid understanding of security concepts such as authentication and authorization
- Familiarity with the client administration capabilities of Windows Server
- General knowledge of management tools such as System Center 2012 Configuration Manager, System Center 2012 Operations Manager, and System Center 2012 Data Protection Manager.
- Familiarity with imaging, packaging, and operating system deployment concepts
- Familiarity with certificates and Certification Authority (CA) implementation and configuration
- Knowledge equivalent to Windows 2012 MCSA
- Experience administering Windows Server in an environment that typically has the following characteristics:
  - 2,500 to 50,000 or more users
  - Multiple physical locations and multiple domain controllers
  - Network services and resources such as messaging, databases, file and print, firewalls, Internet access, an intranet, and client computer management
  - Support for Windows 8 client desktops
  - Deployment and management of both physical and virtual applications
COURSE CONTENT

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
- Overview of Enterprise Desktop Deployment Methods
- Volume Activation Technologies for Enterprise Desktops

Module 2: Planning An Image Management Strategy
This module describes Windows image formats and helps you to define an efficient image management strategy based upon business requirements.

Lessons
- Overview of Windows Image Formats
- Overview of Image Management

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 Encrypted File System

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 the Windows Preinstallation Environment
- Building a Reference Image Using Windows SIM and Sysprep
- Capturing and Servicing a Reference Image
- Configuring and Managing Windows Deployment Services

Module 5: Planning and Implementing User State Migration
This module 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

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 a lite touch installation scenarios.

Lessons
- Planning for the Lite Touch Installation Environment
- Implementing MDT 2012 for Lite Touch Installation
- Integrating Windows Deployment Services with MDT

Module 7: Planning and Deploying Desktops by Using System Center 2012 Configuration Manager
This module describes how to use System Center 2012 Configuration Manager to implement a zero touch installation for deploying enterprise desktops.

Lessons
- Planning the Zero Touch Installation Environment
- Preparing the Site for Operating System Deployment
- Building a Reference Image Using a Configuration Manager Task Sequence
- Using MDT Task Sequences to Deploy Client Images

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 Desktop Infrastructure Deployment
- Configuring a Session-Based Desktop Deployment
- Extending 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 Microsoft User Experience Virtualization

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
- Implementing Configuration Manager 2012 to Support Software Updates
- Managing Updates for Virtual Machines and Images
- Using Windows Intune for Managing 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 Endpoint Protection Client Settings and Monitoring Status
- Using Windows Intune Endpoint Protection
- Protecting Desktops by Using System Center 2012 Data Protection Manager

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 the Virtual Desktop Infrastructure