

MOC 20695 D Deploying Windows Desktops and Enterprise Applications

Course Summary

Description

This five-day course is intended for IT professionals who deploy, manage, and maintain PCs, devices, and applications across medium-sized, large, or enterprise organizations. Typically, this audience comes from a desktop support background and progresses to the role of Enterprise Desktop Administrator. A significant portion of this audience uses or intends to use Microsoft System Center Configuration Manager (Configuration Manager) to manage and deploy PCs, devices, and enterprise applications. The Enterprise Desktop Administrator might also use toolsets such as the Windows Assessment and Deployment Kit (Windows ADK), and the Microsoft Deployment Toolkit (MDT) to support assessment, operating system, and application deployment tasks.

Objectives

By the end of this course, students will be able to:

- Students will be able to assess the network environment to support operating system and application deployment tasks.
- Students will be able to identify the most appropriate Windows deployment strategy based upon organizational requirements.
- Students will be able to assess Windows 10 application compatibility issues and identify mitigation solutions.
- Students will be able to describe and configure strategies to migrate user state during operating system deployments.
- Students will be able to describe image management and use Windows ADK to prepare and support automated deployment strategies.
- Students will be able to identify solutions to support PXE-initiated and multicast solutions when performing operating system deployment tasks.
- Students will be able to configure an operating system deployment process using the Microsoft Deployment Toolkit.
- Students will be able to configure an operating system deployment strategy using System Center Configuration Manager.
- Students will be able to integrate the Microsoft Deployment Toolkit with Configuration Manager to support operating system deployment procedures.
- Students will be able to deploy Windows 10 using modern deployment techniques such as Windows Autopilot, Windows Configuration Designer, and Configuration Manager Servicing.
- Students will be able to implement volume license activation and configuration settings for client computers.
- Students will be able to customize and deploy Microsoft Office and configure access to Microsoft Store for Business apps.

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Course Summary (cont.)

Topics

- Deploying Windows Desktops and Enterprise Applications
- Determining Windows Deployment Strategies
- Assessing Application Compatibility
- Managing images and deployments
- Supporting PXE-Initiated and Multicast Operating System Deployments
- Operating System Deployment Using the Microsoft Deployment Toolkit
- Operating System Deployment Using System Center Configuration
- Integrating MDT and Configuration Manager for Operating System Deployment
- Automating Windows Deployment using Modern Deployment Techniques
- Managing Volume License Activation and Additional Configuration Settings
- Managing Volume License Activation and Additional Configuration Settings
- Microsoft Office

Audience

This five-day course is for IT professionals who deploy, manage, and maintain PCs, devices, and apps across medium, large, and enterprise organizations. Typically, this course's audience has a desktop-support background, and have worked as Enterprise Desktop Administrators. A significant portion of this audience uses or intends to use several tools, including the Windows Assessment and Deployment Kit (Windows ADK), System Center Configuration Manager, Microsoft Deployment Toolkit (MDT), and cloud-based services to support assessment, operating system, and application deployment tasks. Additionally, this course is for individuals who are interested in taking the MCSE exam 70-695: Deploying Windows Desktops and Enterprise Applications.

Prerequisite

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- System administrator-level working knowledge of:
Networking fundamentals, including common networking protocols, topologies, hardware, media, routing, switching, and addressing.
- Microsoft Active Directory Domain Services (AD DS) principles and fundamentals of AD DS management.
- Installation, configuration, and troubleshooting for Windows-based personal computers.
- Basic concepts of Public Key Infrastructure (PKI) security.
- Basic understanding of scripting and Windows PowerShell syntax.
Basic understanding of Windows Server roles and services.

Desired: Basic understanding of management tasks using Configuration Manager.

Duration

Five Days

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Course Outline

I. *Deploying Windows Desktops and Enterprise Applications*

This module examines how you can plan for an effective deployment strategy by identifying the phases of the Enterprise Desktop life-cycle. It also introduces methods used to assess readiness to ensure your network environment can efficiently and effectively deploy the Windows 10 client operating system.

- A. Overview of the enterprise desktop life cycle
- B. Assessing readiness for a Windows desktop deployment
- C. Assessing deployment readiness by using MAP
- D. Assessing deployment readiness by using Windows Analytics

Lab : Assessing the network environment for supporting operating system and application deployment

- Collecting hardware and application inventory by using Configuration Manager
- Using MAP to determine infrastructure readiness

II. *Determining Windows Deployment Strategies*

This module describes traditional and more modern strategies that can be used to perform a successful operating system deployment. It also helps you to identify the most appropriate operating system deployment strategy for your environment, based upon organizational requirements.

- A. Understanding tools and strategies used for operating system deployment
- B. Using the High Touch with Retail Media deployment strategy
- C. Using the High Touch with a Standard Image deployment strategy

- D. Using a lite or zero-touch deployment strategy
- E. Using modern and dynamic deployment strategies
- F. Alternative deployment strategies for Windows desktops

Lab : Determining Operating System Deployment Strategies

- Identifying operating system deployment strategies for a small network
- Identifying operating system deployment strategies for a medium-sized network
- Identifying operating system deployment strategies for an enterprise network

III. *Assessing Application Compatibility*

This module describes the process for addressing common application compatibility issues that you might experience during a new operating system deployment. The module also explains how to use application compatibility tools to help inventory, analyze, and mitigate application compatibility issues.

- A. Diagnosing application compatibility issues
- B. Mitigating application compatibility issues
- C. Using ACT tools to address application compatibility issues

Lab : Assessing application compatibility

- Configuring Windows Analytics Upgrade Readiness
- Mitigating application compatibility issues
- Planning and Implementing User State Migration
- This module introduces user state migration, and the tools and methods that are useful in the planning and implementation of a user state

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Course Outline (cont.)

migration in the Windows software environment.

- Overview of user state migration
- Overview of USMT 10.0
- Planning user state migration
- Migrating user state by using USMT

Lab : Planning and implementing user state migration

- Planning for user state migration
- Creating and customizing USMT XML files
- Capturing and restoring a user state by using the USMT

IV. *Managing images and deployments*

using the Windows ADK

This module provides information on image management strategies to support operating system and application deployments. This module also describes how Windows Setup installs the Windows operating system and explains how to use the tools in the Windows ADK to prepare for and support automated deployment strategies.

- Overview of image management
- Overview of the Windows Setup and installation process
- Preparing boot images by using Windows PE
- Lab : Preparing the imaging and Windows PE environment
- Configuring a custom Windows PE environment
- Lab : Building a reference image by using Windows SIM and Sysprep
- Building custom answer files by using Windows SIM
- Installing a reference computer by using a custom answer file
- Customizing your image in audit mode, and preserving the profile changes by using Sysprep

- Lab : Capturing and servicing a reference image
- Capturing a reference system image

V. *Supporting PXE-Initiated and Multicast Operating System Deployments*

This module introduces the architecture of network boot, Pre-Boot Execution Environment (PXE)-initiated operating system deployments, multicasting operating system delivery, and the Windows Deployment Services (Windows DS) functionality in Windows Server 2016. Lessons

- Overview of PXE-initiated and multicast operating system deployments
- Installing and configuring Windows Deployment Services

Lab : Configuring Windows Deployment Services to support PXE and multicast operating system deployments

- Planning the Windows Deployment Services environment
- Installing and configuring the Windows Deployment Services server role

VI. *Operating System Deployment Using the Microsoft Deployment Toolkit*

This module describes the components of the Microsoft Deployment Toolkit (MDT), and how you can configure an operating system deployment strategy by using the MDT.

- Planning for the MDT environment
- Implementing MDT
- Integrating Windows Deployment Services with MDT

Lab : Operating system deployment using the MDT

- Planning for the MDT environment
- Installing MDT and addressing MDT prerequisites

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Course Outline(cont.)

- Creating and configuring the deployment share
- Deploying and capturing a reference operating system image

VII. *Operating System Deployment Using System Center Configuration*

This module provides an overview of operating system deployments, and explains how to use Configuration Manager to configure an operating system deployment strategy.

- Overview of operating system deployment
- Preparing a site for operating system deployment
- Deploying an operating system

Lab : Preparing the site for operating system deployment

- Managing the site system roles used to support operating system deployment
- Managing packages to support operating system deployment
- Deploying an operating system

Lab : Deploying operating system images for bare-metal installations

- Preparing the operating system image
- Creating a task sequence to deploy an image
- Deploying an image

VIII. *Integrating MDT and Configuration Manager for Operating System Deployment*

This module explains how to integrate the MDT with Configuration Manager to support operating system deployment procedures. It also describes the benefits of integrating the MDT with Configuration Manager.

- Integrating deployment tools with Configuration Manager

- Integrating MDT with Configuration Manager

Lab : Integrating MDT and Configuration Manager for operating system deployment

- Integrating MDT and Configuration Manager
- Creating an MDT boot image
- Creating and deploying an MDT task sequence by using Configuration Manager

Lab : Configuring UDI

- Creating a UDI task sequence
- Deploying Windows 10 by using a UDI task sequence

IX. *Automating Windows Deployment using Modern Deployment Techniques*

This module explains how to prepare for and deploy Windows 10 using modern deployment techniques such as Windows Autopilot, Windows Configuration Designer, and Configuration Manager Servicing

- Using Windows Autopilot to deploy Windows devices
- Using the Windows Configuration Designer to provision Windows devices
- Using Configuration Manager Servicing to Manage Windows 10

Lab : Configuring Windows Autopilot for operating system deployment

- Configuring Microsoft Store for Business to support Windows Autopilot
- Obtaining hardware IDs and add devices to Windows Autopilot
- Creating and applying the Autopilot deployment profile

Lab : Using the Windows Configuration Designer to provision Windows devices

- Create a provisioning package
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Course Outline(cont.)

- Creating a Windows 10 deployment package
 - Lab : Using Configuration Manager Servicing Plans to Manage Windows 10 devices**
 - Configuring software updates to support Windows 10 upgrades
 - Creating a Windows 10 servicing plan
 - Deploying a Windows 10 servicing plan to Configuration Manager client devices
- X. **Managing Volume License Activation and Additional Configuration Settings**
 This module describes volume license activation solutions. It also explains how to implement volume license activation and implement post-deployment configuration settings for client computers.
- A. Solutions for volume license activation
- B. Determining additional client configuration settings
- Lab : Configuring post-deployment settings for Windows devices**
- Planning for Windows 10 customization
 - Creating a common Windows Start menu and custom power plan
 - Create a client preferences GPO
 - Deploying Microsoft Office
 This module explains how to deploy Microsoft Office using both MSI installation and Office 365 deployment. It also describes managing other application deployments such as the Microsoft Store for Business.
 - Methods for deploying Microsoft Office
- Customizing Office deployments
 - Deploy Office apps by using Office 365
 - Managing Office settings
 - Using Microsoft Store for Business for App Deployment
 - Deploy apps using the Microsoft Store for Business
- Lab : Deploying Microsoft Office**
- Using the Microsoft Office Customization Tool (OCT) to customize a Microsoft Office 2016 deployment
 - Deploying a customized version of Office 2016
 - Deploying a customized version of Office 2016
- Lab : Deploying apps using Microsoft Store for Business**
- Configuring Microsoft Store for Business
 - Using Microsoft Store for Business to deploy apps
- XI. **Managing Volume License Activation and Additional Configuration Settings**
 This module describes volume license activation solutions. It also explains how to implement volume license activation and implement post-deployment configuration settings for client computers.
- A. Solutions for volume license activation
- B. Determining additional client configuration settings
- Lab : Configuring post-deployment settings for Windows devices**
- Planning for Windows 10 customization
 - Creating a common Windows Start menu and custom power plan
 - Create a client preferences GPO

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Course Outline(cont.)

XII. *Microsoft Office*

This module explains how to deploy Microsoft Office using both MSI installation and Office 365 deployment. It also describes managing other application deployments such as the Microsoft Store for Business.

- A. Methods for deploying Microsoft Office
- B. Customizing Office deployments
- C. Deploy Office apps by using Office 365
- D. Managing Office settings
- E. Using Microsoft Store for Business for App Deployment
- F. Deploy apps using the Microsoft Store for Business

Lab : Deploying Microsoft Office

- Using the Microsoft Office Customization Tool (OCT) to customize a Microsoft Office 2016 deployment
- Deploying a customized version of Office 2016
- Deploying a customized version of Office 2016

Lab : Deploying apps using Microsoft Store for Business

- Configuring Microsoft Store for Business
- Using Microsoft Store for Business to deploy apps