

## Deploying and Managing Windows® 7: Hands-On - 4 Days

*Course 2401 Overview*

- You Will Learn How To**
- Effectively implement and administer Windows 7 in an enterprise environment
  - Create and deploy custom Windows 7 installation and Windows PE boot images
  - Streamline deployments with the Microsoft Deployment Toolkit (MDT)
  - Develop a plan for managing initial and ongoing client activation
  - Centralise administration through the GUI, shell commands, WinRS and PowerShell
  - Locate and remediate issues with Microsoft monitoring, analysis and recovery tools
- Course Benefits** Centralised administration and streamlined deployment have become attainable goals with Windows 7. New and improved Windows technologies, when properly implemented and managed, can help offset implementation costs and optimise daily administrative tasks. This course provides the knowledge and skills to leverage these technologies to deploy, maintain and administer client operating systems.
- Who Should Attend** Help desk technicians, desktop administrators and anyone responsible for deploying and managing Windows 7. Knowledge of Windows client administration is assumed. Experience with Windows 7 at the level of Course 2400, "Windows 7 Comprehensive Introduction", is helpful but not required.
- Hands-On Training** Throughout this course, extensive hands-on exercises provide practical experience deploying and managing Windows 7. Exercises include:
- Building custom Windows PE boot media
  - Creating and rolling out custom WIM files
  - Installing Windows across the network with WDS
  - Centralising management with scheduled tasks and group policies
  - Administering systems from the command line and with PowerShell
  - Recovering modified and deleted files
  - Analysing and monitoring system performance

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## Course 2401 Outline

### Introduction to Windows 7

#### Management

#### Planning an enterprise implementation

- Contrasting editions and features
- Justifying roll-out costs

#### Building Windows PE

- Evaluating use cases for deployment and administration
- Exploring the filesystem and memory architecture
- Creating basic Windows PE boot media
- Customising PE with DISM

#### Creating and Managing Custom Images

#### Configuring reference computers

- Selecting an imaging technology
- Automating installation with answer files

#### Authoring Windows Image (WIM) format files

- Generalising the OS with Sysprep
- Capturing and deploying images with ImageX
- Preparing the filesystem with DiskPart

#### Maintaining image files

- Supplementing the driver cache via answer files
- Injecting updates and language packs with DISM

#### Automating Deployment Tasks

#### Migrating data to new workstations

- Relocating settings and files with Windows Easy Transfer
- Scripting user state transfers with USMT
- Retaining user data through hard-link data migration

#### Optimising deployments of other Windows editions

- Coping with Windows XP and Windows Server 2003 imaging limitations
- Scripting Windows Server 2008 roles

#### Customising the Windows Imaging Process

#### Performing network installations with Windows Deployment Services (WDS)

- Adding custom boot and install images
- Optimising roll-outs through multicasting

#### Exploiting the Microsoft Deployment Toolkit (MDT)

- Configuring images with drivers and applications
- Building Lite Touch deployments
- Integrating MDT with WDS

#### Managing Windows Activation

#### Controlling volume license activation

- Maintaining Multiple Activation Keys (MAK)
- Implementing a Key Management Services (KMS) infrastructure

#### Dealing with activation issues

- Rearming Windows
- Assessing activation status with the Volume Activation Management Tool (VAMT)

#### Streamlining Windows 7

#### Administration

#### Unifying system configuration with group policies

- Contrasting user and computer-based settings
- Targeting GPO application with Scopes of Management (SOM)

#### Automating maintenance with Task

#### Scheduler

- Creating tasks manually and via export/import
- Scheduling remote tasks

#### Controlling client desktops remotely

- Shadowing users through Remote Assistance
- Connecting to systems for administration with Remote Desktop

#### Working with command line tools

- Identifying the scope of shell commands
- Executing remote commands with WinRM/WinRS
- Extending command line functionality through PowerShell

#### MS Desktop Optimization Pack (MDOP)

- Application virtualisation
- Desktop virtualisation
- AGPM
- Asset Inventory Services

#### Optimisation and Troubleshooting

#### Establishing effective recovery strategies

- Protecting data with Windows backup
- Simplifying recovery with previous versions and restore points

#### Improving system functionality

- Analysing issues with the event viewer
- Monitoring performance trends
- Configuring Virtual Hard Disk (VHD) Native Boot

#### Resolving application compatibility problems

- Compatibility mode
- XP mode
- Remote App
- App-V

#### Extending troubleshooting techniques

- Documenting application failures with Problem Recorder
- Diagnosing system errors with the MDOP toolset