KOENIG SOLUTIONS · COURSE OUTLINE

Windows 11 Advanced Administration(M55624A)

Learn to provision, configure, secure and troubleshoot Windows 11 devices across on-premises and cloud-based environments.

5 Days	12	163	48
DURATION	MODULES	TOPICS	HANDS-ON ACTIVITIES

COURSE OVERVIEW

This 5-day course is intended to provide you with the knowledge and skills to manage your organization's Windows 11 devices in both on-premises and cloud-based scenarios.

WHO THIS COURSE IS FOR

- **IT Administrators**
- **Systems Administrators**
- **Desktop Support Technicians**
- **Windows Engineers**
- **Endpoint Administrators**

LEARNING OBJECTIVES

- Explain Windows 11 system architecture and remote management options
- Plan Windows 11 deployment using MDT, Autopilot and provisioning
- Perform in-place upgrades and user state migration to Windows 11
- Configure networking, name resolution and remote access in Windows 11
- Implement identity, access and identity protection features in Entra ID
- Configure Group Policy, Intune device policies and update management
- Implement BitLocker, device compliance and Conditional Access
- Analyse system crashes and apply Windows recovery tools

COURSE SYLLABUS

12 Modules, 163 Topics

01

2 Activities 4 Activities

Introducing Windows 11

In this module, students learn about the system architecture of Windows 11. They'll also learn how to manage processes, and perform remote management using Quick Assist, PowerShell Remoting, and Windows Admin Center.

WHAT'S NEW IN WINDOWS 11?

- What's new in Windows 11 24H2?
- What can we expect in Windows 12?
- New features for IT administrators

WINDOWS 11 SYSTEM ARCHITECTURE

- Application subsystems
- The executive
- The kernel, process management, and storage
- Devices and drivers

REMOTE MANAGEMENT OPTIONS

- Remote Desktop
- Quick Assist
- Windows PowerShell
- Windows Admin Center
- TeamViewer
- Intune Remote Help

IMPLEMENT REMOTE MANAGEMENT USING POWERSHELL

- What is PowerShell?
- Using PowerShell commands
- Enabling PowerShell remoting
- **Demo:** Managing devices with PowerShell Remoting

IMPLEMENT REMOTE MANAGEMENT USING WINDOWS ADMIN CENTER

- WAC requirements
- Installing Windows Admin Center
- **Demo:** Using Windows Admin Center

02

4 Activities

Provisioning Windows 11

In this module, students learn how to deploy and provision Windows 11 by using both on-premises tools, such as imaging with MDT, and modern tools, such as Autopilot and Windows Configuration Designer.

OVERVIEW OF PROVISIONING OPTIONS

- Imaging
- Provisioning
- Subscription Activation
- Windows Autopilot

DEPLOYMENT USING MDT

- Overview of MDT
- Description of task sequences
- **Demonstration:** Deploying Windows 11 using MDT

PROVISION BY USING WINDOWS CONFIGURATION DESIGNER

- Overview of Windows ADK
- Creating Windows Configuration Designer provisioning packages
- Deploying provisioning packages during OOBE
- **Demonstration:** Creating and using provisioning packages

Provisioning Windows 11 (continued)

PROVISION BY USING INTUNE

- Overview of Windows AutoPilot
- AutoPilot requirements
- **Demonstration:** Configuring for AutoPilot

LICENSING AND ACTIVATION

- What is activation?
- Activation methods

03

3 Activities

Upgrading to Windows 11

In this module, students learn upgrade and migrate to Windows 11.

ASSESS HARDWARE AND SOFTWARE COMPATIBILITY

Minimum and recommended hardware · Devices and device drivers · Application compatibility

PERFORM IN-PLACE UPGRADE OR WIPE-AND-LOAD MIGRATION?

Choosing an in-place upgrade · When to use a wipe and load migration

USE MDT TO UPGRADE

Create the appropriate task sequence

USE INTUNE TO UPGRADE

Endpoint analytics Windows 11 readiness · Windows Update rings

MIGRATE USER STATE

Overview of user state · Using USMT · Using OneDrive Known Folder Move

04

3 Activities

Networking in Windows 11

In this module, students learn to implement networking in Windows 11, and to troubleshoot network settings.

CONFIGURE NETWORKING

IPv4 addressing · IPv6 addressing · Implementing an IPv4 network · Implementing an IPv6 network

IMPLEMENT NAME RESOLUTION

Name resolution methods · How DNS works · Reviewing DNS zones · Configuring client DNS settings

IMPLEMENT REMOTE ACCESS

Available remote access options · Implement RADIUS with NPS · Deploy VPN settings with WCD and Intune

TROUBLESHOOT NETWORKS

Troubleshoot network connections · Troubleshoot name resolution · Troubleshoot VPNs

05

4 Activities

Managing Identity and Access

In this module, students learn about the different identity providers and how to select the appropriate provider. They'll also learn how to manage Entra ID device registration. Finally, students learn about the identity protection features available in Entra ID and how to implement them.

OVERVIEW OF IDENTITY PROVIDERS

- Active Directory
- Entra ID
- Entra Domain Services
- Synchronizing identities to the cloud

IMPLEMENT ENTRA ID REGISTRATION

- Device register
- Device join
- Device hybrid join
- Device enrollment
- Device settings

IMPLEMENT IDENTITY PROTECTION

- Credential Guard
- Manage the membership of local groups on Windows devices by using Intune
- Implement and manage LAPS for Microsoft Entra ID
- Self-service password reset in Entra ID
- Overview of Windows Hello
- Overview of MFA
- Implementing Windows Hello in Intune
- Implementing MFA in Entra ID

06

3 Activities

4 Activities

Configuring Windows 11

In this module, students learn how to implement and troubleshoot Group Policy in an on-premises environment before migrating the settings to Intune. Students also learn how to manage updates in Intune.

IMPLEMENT AND TROUBLESHOOT GROUP POLICY

- Overview of Group Policy
- Group Policy processing
- Changing default GPO processing behavior
- GPO filtering
- Tools for managing GPOs
- How GPOs apply
- Reasons for GPO failures
- Troubleshooting the application of GPOs

MIGRATE GPOS TO INTUNE

- Implement administrative templates in Intune
- Import new ADMX files
- Review how your on-premises GPOs can be imported to Intune

CONFIGURING DEVICES USING INTUNE

- Use device configuration policies
- Resolve conflicts between policies

MANAGE WINDOWS 11 UPDATES

- Overview of the update service model in Windows
- Selecting a servicing channel
- Local update settings
- Managing updates via GPO
- Managing updates via Intune
- Hot-patching

07

4 Activities

Configuring Windows 11

In this module, students learn how to implement and troubleshoot Group Policy in an on-premises environment before migrating the settings to Intune. Students also learn how to manage updates in Intune.

DEPLOY MICROSOFT STORE APPS

Use Intune to deploy Store apps · Restrict access to the Store · Manage app updates

DEPLOY WIN32 APPS

Local deployment options · Microsoft 365 apps for Enterprise deployment · Enterprise app catalog

TROUBLESHOOT APPS

Why apps don't work · Mitigations for problematic apps

CONFIGURE WINDOWS DEFENDER APPLICATION CONTROL

What is AppLocker? · What is Application Control? · Implementing Application Control

08

5 Activities

Managing Access to File Resources

In this module, students learn how to make file resources available, and how to secure and troubleshoot that access.

IMPLEMENT STORAGE IN WINDOWS 11

Local storage · Removal storage · Storage spaces · Cloud storage (OneDrive and Azure Storage) · File systems

MANAGE AND SHARE FILES

Configure and manage file access · File and folder permissions · Effective access · Share files · Manage share permissions · Combine NTFS and share permissions · Implement claims-based access

09

3 Activities

Implementing Security Features

In this module, students learn about the security features in Windows 11, and how to implement them. They also learn to implement compliance in Intune. Finally, students learn to create and manage conditional access policies in Entra ID to address specific use cases, such as app restrictions.

OVERVIEW OF SECURITY FEATURES IN WINDOWS 11

- Overview of Security Center
- Microsoft Defender features, including Credential Guard etc.

IMPLEMENT BITLOCKER USING INTUNE

- What is BitLocker?
- Drive unlock options
- BitLocker recovery
- Managing BitLocker in Entra ID and Intune

IMPLEMENT DEVICE COMPLIANCE

- What is device compliance
- Default Intune compliance policy
- Create and assign compliance policies
- Review device compliance state

IMPLEMENT CONDITIONAL ACCESS

- Overview of Entra ID Conditional Access policies
- Reviewing Conditional Access templates
- Implementing Conditional Access for apps
- Implementing device compliance with Conditional Access

10

2 Activities

Implementing Threat Protection and Response

In this module, students learn implement and manage threat protection. They also learn how to implement policies based on Intune security baselines.

CONFIGURE MICROSOFT DEFENDER FOR ENDPOINT

Overview of Microsoft Defender for Endpoint · Implement Microsoft Defender for Endpoint

IMPLEMENT INTUNE SECURITY BASELINES

Review Intune security baselines · Update a security policy's baseline

MONITOR AND RESPOND TO SECURITY INCIDENTS

Review security incidents · Mitigate security incidents

11

2 Activities

Monitoring and Optimizing Windows

In this module, students learn how to manage events and review event reports. They'll also learn how to review computer performance.

MANAGE EVENTS

- Describe how to review events
- Create an event subscription
- Review Intune device reports

OPTIMIZE ENDPOINT PERFORMANCE

- Understand key workstation resources
- Describe available performance monitoring tools
- Create and analyze data collector sets
- Review performance data in Intune

12

5 Activities

Recovering Windows 11

In this module, students learn how troubleshoot system crashes and startup failures. They'll also learn about file recover options, including OneDrive recycle bin and Windows 11 File History. Students will also learn about the registry and how to manage device drivers.

IMPLEMENT DATA PROTECTION AND RECOVERY

- Review file recovery options, including OneDrive Recycle Bin and Windows Recycle bin
- Implement File History to manage file versions and recovery

ANALYZE SYSTEM CRASHES

- Review system crash debug information
- Review startup logs

Recovering Windows 11 (continued)

USE WINDOWS RECOVERY TOOLS

- Windows startup architecture
- Managing the startup environment
- Describe the available recovery tools
- Access Windows RE
- Troubleshooting startup
- Describe System Restore
- Perform a System Restore

MANAGE DEVICE AND DEVICE DRIVERS

- Describe procedures for troubleshooting hardware
- Managing device driver installation options
- Troubleshooting device drivers

REVIEW THE REGISTRY

- What is the Registry?
- Working with the Registry

HANDS-ON ACTIVITIES

Practise What You Learn

#	MODULE	ACTIVITY
01	**Introducing Windows 11**	**LAB A: EXPLORING PROCESSES** ■ **Exercise 1:** Installing Sysinternals Suite ■ **Exercise 2:** Using the tools in the Sysinternals Suite **LAB B: MANAGING WINDOWS DEVICES REMOTELY** ■ **Exercise 1:** Enable remote management ■ **Exercise 2:** Manage a remote device using Quick Assist ■ **Exercise 3:** Implement PowerShell Remoting ■ **Exercise 4:** Implement Windows Admin Center
02	**Provisioning Windows 11**	**LAB: PROVISIONING AND UPDATING WINDOWS 11** ■ **Exercise 1:** Using MDT to deploy Windows 11 ■ **Exercise 2:** Creating a provisioning package ■ **Exercise 3:** Deploying a provisioning package ■ **Exercise 4:** Provisioning Windows 11 with Autopilot
03	**Upgrading to Windows 11**	**LAB: UPGRADING TO WINDOWS 11** ■ **Exercise 1:** Assess upgrade readiness ■ **Exercise 2:** Perform an in-place upgrade with MDT ■ **Exercise 3:** Perform an in-place upgrade with Intune
04	**Networking in Windows 11**	**LAB: CONFIGURING AND TROUBLESHOOTING NETWORKING** ■ Implementing and troubleshoot a network connectivity issue ■ Implementing and troubleshoot name resolution ■ Implementing and troubleshoot remote access
05	**Managing Identity and Access**	**LAB: MANAGING IDENTITY AND ACCESS** ■ **Exercise 1:** Configuring Entra device settings ■ **Exercise 2:** Performing device join with Entra ■ **Exercise 3:** Enrolling devices in Intune ■ **Exercise 4:** Implementing LAPS, Windows Hello, SSPR, and MFA

#	MODULE	ACTIVITY
06	**Configuring Windows 11**	**LAB A: IMPLEMENTING AND TROUBLESHOOTING GPOS** ■ **Exercise 1:** Implementing GPOs per a requirement ■ **Exercise 2:** Testing the application of GPOs ■ **Exercise 3:** Troubleshooting the application of GPOs **LAB B: CONFIGURING DEVICES WITH INTUNE** ■ **Exercise 1:** Migrate GPOs to Intune ■ **Exercise 2:** Create and assign device configuration policies ■ **Exercise 3:** Manage configuration profile conflicts ■ **Exercise 4:** Deploy updates with Intune
07	**Configuring Windows 11**	**LAB: MANAGING APPS** ■ **Exercise 1:** Deploy Store apps ■ **Exercise 2:** Deploy Microsoft 365 apps ■ **Exercise 3:** Reconfigure AppLocker ■ **Exercise 4:** Manage Kiosk mode
08	**Managing Access to File Resources**	**LAB: MANAGING FILE ACCESS** ■ **Exercise 1:** Creating a storage space ■ **Exercise 2:** Securing folders with NTFS permissions ■ **Exercise 3:** Sharing folders ■ **Exercise 4:** Implementing claims-based access to files ■ **Exercise 5:** Troubleshooting file access
09	**Implementing Security Features**	**LAB: IMPLEMENTING SECURITY FEATURES** ■ **Exercise 1:** Implementing BitLocker ■ **Exercise 2:** Implementing device compliance ■ **Exercise 3:** Implementing Conditional Access
10	**Implementing Threat Protection and Response**	**LAB: IMPLEMENTING THREAT PROTECTION AND RESPONSE** ■ **Exercise 1:** Implementing Microsoft Defender for Endpoint ■ **Exercise 2:** Implementing Intune security baselines
11	**Monitoring and Optimizing Windows**	**LAB: MONITORING AND OPTIMIZING WINDOWS** ■ **Exercise 1:** Managing events ■ **Exercise 2:** Optimizing performance
12	**Recovering Windows 11**	**LAB: RECOVERING WINDOWS 11** ■ **Exercise 1:** Implementing File History ■ **Exercise 2:** Reviewing startup logs and performing crash analysis ■ **Exercise 3:** Performing a System Restore ■ **Exercise 4:** Using recovery tools ■ **Exercise 5:** Managing devices and device drivers

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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