KOENIG SOLUTIONS · COURSE OUTLINE

Advanced AD: Group Policy, AD CS & AD FS

Learn to manage domain controllers, Group Policy, AD CS, AD LDS and AD FS in an Active Directory environment.

40 Hours	14	36
DURATION	MODULES	TOPICS

COURSE OVERVIEW

This Advanced Active Directory (AD) training course provides a comprehensive deep-dive into the key components, functionalities, and advanced management techniques of Active Directory Domain Services (AD DS). The course covers crucial topics such as domain controller management, group policy implementation, Active Directory Certificate Services (AD CS), Active Directory Lightweight Directory Services (AD LDS), and more. Participants will gain hands-on experience and advanced skills to effectively manage and troubleshoot AD DS in a dynamic IT environment.

WHO THIS COURSE IS FOR

- **AD Administrators**
- **Systems Engineers**
- **IT Infrastructure Professionals**
- **Network Administrators**
- **Security Administrators**
- **Identity Management Specialists**

PREREQUISITES

Before taking this course, participants should have:

- Basic knowledge of networking concepts
- Familiarity with Windows Server operating systems
- Experience with Active Directory basic administration

LEARNING OBJECTIVES

- Describe AD DS architecture including forests, domains and sites
- Configure domain controllers and manage FSMO roles
- Implement and troubleshoot Group Policy Objects
- Manage trust relationships and AD DS replication
- Configure certification authorities and certificate issuance in AD CS
- Deploy AD LDS instances and manage schema and replication
- Implement claims-based authentication and SSO with AD FS
- Automate AD DS administration tasks using PowerShell

COURSE SYLLABUS

14 Modules, 36 Topics

01

Active Directory Fundamentals

TOPICS

- **Overview of AD DS:** Understanding forests, domains, sites, domain controllers, organizational units (OUs), users, and groups
- **AD DS Architecture:** Detailed study of AD DS components and their interactions

02

Domain Controller Management

TOPICS

- **Deployment and Configuration:** Best practices for deploying domain controllers, including read-only domain controllers (RODCs)
- **FSMO Roles:** Understanding Flexible Single Master Operations (FSMO) roles and their management
- **Backup and Recovery:** Techniques for backing up and restoring AD DS, including system state backups

03

Group Policy Management

TOPICS

- **GPO Creation and Implementation:** Advanced techniques for creating and implementing Group Policy Objects (GPOs)
- **Troubleshooting GPOs:** Methods for diagnosing and resolving GPO-related issues

04

Advanced AD DS Administration

TOPICS

- **Trust Relationships:** Creating and managing trust relationships between domains and forests
- **Replication Monitoring and Troubleshooting:** Monitoring AD DS replication and resolving replication issues
- **Custom AD DS Partitions:** Creating and managing custom partitions in AD DS

05

Active Directory Certificate Services (AD CS)

TOPICS

- **Certification Authorities (CAs):** Types of CAs and their roles
- **Certificate Issuance and Revocation:** Processes for issuing and revoking certificates
- **Certificate Trusts:** Establishing and managing certificate trusts

06

Active Directory Lightweight Directory Services (AD LDS)

TOPICS

- **AD LDS Overview:** Understanding the role and use cases of AD LDS
- **Installation and Configuration:** Steps to install and configure AD LDS instances
- **Schema Management:** Managing and extending the AD LDS schema
- **Replication and Synchronization:** Configuring replication between AD LDS instances
- **Security and Authentication:** Implementing security measures and authentication mechanisms in AD LDS

07

Active Directory Federation Services (AD FS)

TOPICS

- **AD FS Overview:** Understanding the role and use cases of AD FS
- **Installation and Configuration:** Steps to install and configure AD FS
- **Claims-Based Authentication:** Implementing and managing claims-based authentication
- **Federation Trusts:** Creating and managing federation trusts
- **Single Sign-On (SSO):** Configuring SSO for internal and external applications

08

Security and Compliance

TOPICS

- **AD DS Security Best Practices:** Implementing security measures to protect AD DS
- **Compliance and Auditing:** Ensuring AD DS complies with organizational policies and regulatory requirements

09

PowerShell for AD DS

TOPICS

- **Automation with PowerShell:** Using PowerShell scripts to automate AD DS tasks
- **Advanced Scripting:** Writing and debugging advanced PowerShell scripts for AD DS management

10

Monitoring and Performance Tuning

TOPICS

- **AD DS Monitoring Tools:** Utilizing tools like Performance Monitor, Event Viewer, and AD DS-specific monitoring solutions
- **Performance Optimization:** Techniques for optimizing AD DS performance

11

Troubleshooting and Support

TOPICS

- **Common Issues:** Identifying and resolving common AD DS issues
- **Advanced Troubleshooting:** Techniques for diagnosing and fixing complex AD DS problems

12

Migration and Upgrades

TOPICS

- **AD DS Migration:** Strategies for migrating AD DS from older versions to newer ones
- **Upgrade Paths:** Planning and executing upgrades to AD DS

13

Integration with Other Services

TOPICS

- **AD DS and Azure AD:** Integrating on-premises AD DS with Azure Active Directory
- **Third-Party Integrations:** Connecting AD DS with third-party applications and services

14

Real-World Scenarios and Case Studies

TOPICS

- **Practical Applications:** Studying real-world scenarios and case studies to understand practical applications of AD DS

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.

FLEXIBLE DELIVERY

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Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

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