

# 55152: Fundamentals of Active Directory

## Course Details

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### Course Outline

#### 1. Principles of Active Directory

- Development of Active Directory
- What is X.500
- LDAP
- Active Directory Architecture
- NTLM and Kerberos
- Managing operating systems with GPOs, Workplace Join and InTune
- Active Directory Groups: Domain Local, Global and Universal
- Using and Managing Active Directory Domain Controllers
- Forest and Domain Functional Levels
- Introduction to Active Directory Partitions and the Global Catalog
- Basic Forest Structure and Design
- Basic Domain Structure and Design
- Basic OU Structure and Design
- Describe the key features and editions of Active Directory
- Understand all of the principle components of Active Directory including Sites, Domains, OUs and their use.
- Describe the authentication mechanisms used by Active Directory and how they are implemented.
- Understand the common design scenarios used when implementing Active Directory.
- Describe the techniques used by Active Directory to manage computers and network resources.

#### 2. Fundamentals of WAN management with Active Directory

- Understanding AD Sites and WAN Traffic Management
- Basic AD Sites and Logon Traff
- Introduction to AD Sites and Replication Traffic
- Bridgehead Servers and Site Link Objects
- Site Aware Applications

- Describe the key features, in Active Directory used to manage WAN logon and replication traffic.
- Understand the function of the Knowledge Consistency Checker and the Inter-Site Topology Generator.
- Fundamentals of WAN design with Active Directory.
- Resolve common WAN traffic issues.

### 3. Introduction to Active Directory Group Policy Object

- Introduction to Group Policy
- Administrative Templates
- Fundamental Concepts of GPO Scripts
- Introduction to Creating and Using GPOs
- Principles of Managing Multiple GPOs
- Block, Enforce and Inheritance
- GPOs and Active Directory Versions
- Introduction to Controlling and Installing Software with GPOs, SRP and App Locker
- Describe the key features, editions, and hardware requirements Active Directory Group Policy.
- Principles of managing multiple GPOs and inheritance.
- Upgrade and Migrate to new Administrative Templates.
- Understand Block, Enforce, GPO scripts and container linking.
- Introduction to software installation with GPOs and application control.
- Resolve common issues

### 4. Principles of Active Directory Integration

- Active Directory and “The Cloud”
- User Principle Names, Authentication and Active Directory Federated Services
- Active Directory and “The Cloud”
- **Lab : What version of Active Directory are you running?**
- Determine server operating system version of a Domain Controller
- Determine Domain Functional Level
- Determine Forest Functional Level
- Raise Domain and Forest Functional Level
- Create a logical Active Directory Diagram
- **Lab : Authenticate with a UPN logon**

- Authenticate and login using both Pre-Windows 2000 and User Principle Name login methods.
- Understand the use and limitations of Active Directory authentication methods.
- **Lab : Explore Active Directory Objects and Utilities**
- Explore and use the Active Directory Users and Computers Utility
- Create OU containers, users and delegate rights and permissions
- Explore the Active Directory Administrative Center.
- Understand common issues.
- **Lab : Explore the default GPO configuration**
- Explore and use the Group Policy Management Editor
- Explore and understand the settings in the default Active Directory GPOs
- **Lab : Make your own GPO**
- Create a new Group Policy Object using the Group Policy Management Editor
- Apply and test application of the new GPO
- Describe the key features of Active Directory that can be used for extra WAN resource sharing
- Understand the term Cloud and the advantage of Cloud services.
- Understand the principles of Authentication outside of an Active Directory Forest.
- Describe the role of Kerberos, Single Sign On and User Principle Names.
- Experience and use the principle Active Directory management tools described in the course.
- Create, edit and apply a Group Policy Object.