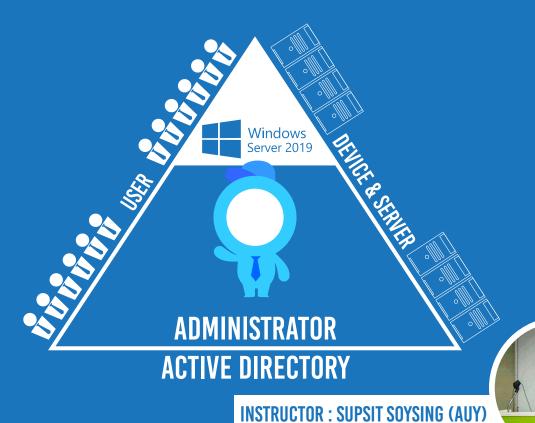
# CONFIGURING AND TROUBLESHOOTING

# WINDOWS SERVER 2019 ACTIVE DIRECTORY DOMAIN SERVICES











เรียนจบ นำความรู้ไปต่อยอดได้ทันที พร้อมรับประกาศนียบัตรรับรอง



้มีบริการอาหารกลางวัน อุปกรณ์ทันสมัยสนับสนุนการเรียนรู้ ไม่เสียค่าจอดรถ

ช่วงเวลาการสอน : 9:00-17:00 น. | จำนวนวันที่ใช้ในคอร์ส : 2 วัเ

เพื่อให้บุคคลทั่วไปที่ต้องการศึกษาและต้องการ Config Active Directory & GroupPolicy อย่างละเอียด และสามารถนำความรู้ที่เรียนไป config ระบบ domain และ Grouppolicy ใช้ในองค์กรได้

ไม่จำเป็นต้องมีพื้นฐาน เหมาะสำหรับบุคคลทั่วไปที่ต้องการศึกษาวิธี Config Active Directory & GroupPolicy อย่างละเอียด





# **Module 1: Introducing Active Directory Domain Services (AD DS)**

This module explains how to install and configure Active Directory Domain Services and install and configure a read-only domain controller.

#### Lessons

- Introducing Active Directory, Identity, and access
- Active Directory Components and Concepts
- Install Active Directory Domain Services
- Extend IDA with Active Directory Services

# Lab: Install an AD DS DC to Create a Domain Forest

- Exercise 1: Perform Post-Installation Configuration Tasks
- Exercise 2: Install a New Windows Server 2019 Forest with the Windows Interface

# After completing this module, students will be able to:

- Position the strategic role a directory service in an enterprise in relation to identity and access.
- Explain authentication and authorization processes.
- Identify the major components of ADDS.
- Understand the requirements for installing a domain controller to create a new forest
- Identify the roles of and relationships between ADDS, ADLDS, ADRMS, ADFS, and ADCS

# **Module 2: Secure and Efficient Administration of Active Directory**

This module explains how to work securely and efficiently in Active Directory.

#### Lessons

- Work with Active Directory Snap-ins
- Custom Consoles and Least Privilege
- Find Objects in Active Directory
- Use DS Commands to Administer Active Directory

# Lab: Create and Run a Custom Administrative Console

- Exercise 1: Perform Basic Administrative Tasks Using the Active Directory Users and Computers Snap-in
- Exercise 2: Create a Custom Active Directory Administrative Console
- Exercise 3: Perform Administrative Tasks with Least Privilege, Run as Administrator and User Account Control
- Exercise 4: (Advanced Optional) Advanced MMC Customization and Remote Administration

# **Lab: Find Objects in Active Directory**

- Exercise 1: Finding Objects in Active Directory
- Exercise 2: Using Saved Queries
- Exercise 3: (Advanced Optional) Explore Saved Queries

# **Lab: Use DS Commands to Administer Active Directory**

- Exercise 1: Use DS Commands to Administer Active Directory

- Install, locate, and describe the snap-ins used to administer AD DS
- Perform basic administrative tasks with the Active Directory Users and Computers snap-in
- Create a custom MMC console for administration
- Perform administrative tasks while logged on as a user
- Control the view of objects in the Active Directory Users and Computers snap-in
- Locate objects in Active Directory
- Work with saved queries
- Identify the distinguished name (DN), relative distinguished name (RDN), and common name (CN) of an Active Directory object
- Use the DS commands to administer Active Directory from the command line

# Module 3: Manage Oganization Unit OU AND Manage Users

This module explains how to manage and support user accounts in Active Directory.

#### Lessons

- Create and Administer User Accounts
- Configure User Object Attributes
- Automate User Account Creation
- : Create Oganization Unit OU

#### **Lab: Create and Administer User Accounts**

- Exercise 1: Create User Accounts Oganization Unit OU
- Exercise 2: Administer User Accounts And Delegate Control Oganization Unit OU
- Exercise 3: (Advanced Optional) Explore User Account Name Attributes

# **Lab: Configure User Object Attributes**

- Exercise 1: Examine User Object Attirbutes
- Exercise 2: Manage User Object Attributes
- Exercise 3: Create Users from a Template
- Exercise 4: (Advanced Optional) Create Users with a Batch File

# **Lab: Automate User Account Creation**

- Exercise 1: Export and Import Users with CSVDE
- Exercise 2: Import Users with LDIFDE

- Create and configure the account-related properties of a user object
- Identify the purpose and requirements of user account attributes
- Perform common administrative tasks to support user accounts including password reset and account unlock
- Enable and disable user accounts
- Delete, move and rename user accounts
- View and modify hidden attributes of user objects
- Identify the purpose and requirements of user object attributes
- Create users from user account templates
- Modify attributes of multiple users simultaneously
- Export user attributes with CSVDE
- Import users with CSVDE
- Import users with LDIFDE

# **Module 4: Manage Groups**

This module explains how to create, modify, delete, and support group objects in Active Directory.

#### Lessons

- Manage an Enterprise with Groups
- Administer Groups
- Best Practices for Group Management

# **Lab: Administer Groups**

- Exercise 1: Implement Role-Based Management Using Groups
- Exercise 2: Manage Group Membership from the Command Line
- Exercise 3: (Advanced Optional) Explore Group Membership Reporting Tools
- Exercise 4: (Advanced Optional) Understand "Account Unknown" Permission

# **Lab: Best Practices for Group Management**

- Exercise 1: Implement Best Practices for Group Management

# After completing this module, students will be able to:

- Understand the role of groups in managing an enterprise
- Create well-documented, secure, delegated groups
- Understand group types, scope, and nesting
- Understand the best practice for group nesting to achieve role-based management
- Create, delete and manage groups with DSCommands, CSVDE and LDIFDE
- Enumerate and copy group membership
- Understand Default (Built In) groups
- Understand Special Identities

# **Module 5: Support Computer Accounts**

This module explains how to create and configure computer accounts.

# Lessons

- Create Computers and Join the Domain
- Administer Computer Objects and Accounts

# **Lab: Create Computers and Join the Domain**

- Exercise 1: Join a Computer to the Domain with the Windows Interface
- Exercise 2: Securing Computer Joins
- Exercise 3: Managing Computer Account Creation with Best Practices

# **Lab: Administer Computer Objects and Accounts**

- Exercise 1: Administer Computer Objects through their Lifecycle
- Exercise 2: Administer and Troubleshoot Computer Accounts

- Understand the relationship between a domain member and the domain in terms of identity and access
- Identify the requirements for joining a computer to the domain
- Implement best practice processes for computer joins
- Secure AD DS to prevent the creation of unmanaged computer accounts
- Manage computer objects and their attributes using the Windows Interface and command line tools
- Administer computer accounts through their lifecycle

# **Module 6: Managing Access to Resources in Active Directory Domain Services**

This module explains how to manage access and assign and manage permissions.

#### Lessons

- Managing Access Overview
- Managing NTFS File and Folder Permissions
- Assigning Permissions to Shared Resources
- Determining Effective Permission

# **Lab: Managing Access to Resources**

- Planning a Shared Folder Implementation (Discussion)
- Implementing a Shared Folder Implementation
- Evaluating the Shared Folder Implementation

# After completing this module, students will be able to:

- Describe how access management works in AD DS.
- Assign permissions to shared folders.
- Configure permissions using NTFS.
- Determine effective permissions.

# **Module 7: Implement a Group Policy Infrastructure**

This module explains what Group Policy is, how it works, and how best to implement Group Policy in your organization.

#### Lessons

- Understand Group Policy
- Implement a Group Policy
- Explore Group Policy Settings and Features
- Manage Group Policy Scope
- Group Policy Processing
- Troubleshoot Policy Application

# **Lab: Implement Group Policy**

- Create, Edit and Link GPOs

# **Lab: Explore Group Policy Settings and Features**

- Exercise 1: Use Filtering and Commenting
- Exercise 2: Mange Administrative Templates

#### Lab: Manage Group Policy Scope

- Exercise 1: Configure GPO Scope with Links
- Exercise 2: Configure GPO Scope with Filtering
- Exercise 3: Configure Loopback Processing

- Identify the business drivers for configuration management
- Understand the components and technologies that comprise the Group Policy framework
- Manage Group Policy objects
- Configure and understand a variety of policy setting types
- Scope GPOs using links, security group, WMI filters, loopback processing, and Preference targeting
- Explain GPO storage, replication, and versioning
- Administer a Group Policy infrastructure
- Evaluate GPO inheritance, precedence, and Resultant Set of Policy (RSoP)
- Locate the event logs containing Group Policy related events
- Create, edit, and apply security policies using the Security Configuration Wizard
- Deploy security configuration with Group Policy
- Deploy software using GPSI
- Remove software originally installed with GPSI

# **Module 8: Manage Sites and Active Directory Replication**

This module explains how to create a distributed directory service that supports domain controllers in portions of your network that are separated by expensive, slow, or unreliable links.

#### Lessons

- Configure Sites and Subnets
- Configure the Global Catalog and Application Partitions
- Configure Replication

# **Lab: Configure Sites and Subnets**

- Exercise 1: Configure the Default Site
- Exercise 2: Create Additional Sites

# Lab: Configure the Global Catalog and Application Partitions

- Exercise 1: Configure a Global Catalog
- Exercise 2: Configure Universal Group Membership
- Exercise 3: Examine DNS and Application Directory Partitions

# **Lab: Configure Replication**

- Exercise 1: Create a Connection Object
- Exercise 2: Create Site Links
- Exercise 3: Move Domain Controllers into Sites
- Exercise 4: Designate a Preferred Bridgehead Server
- Exercise 5: Configure Intersite Replication

- Configure sites and subnets
- Understand domain controller location and manage domain controllers in sites
- Configure replication of the partial attribute set to global catalog servers
- Implement universal group membership caching
- Understand the role of application directory partitions
- Configure replication topology with connection objects, bridgehead servers, site links, and site link bridges
- Report, analyze, and troubleshoot replication with repadmin.exe and dcdiag.exe

# **COURSE OUTLINE**

# **Module 9: Managing Multiple Domains and Forests**

This module explains how to raise the domain and forest functionality levels within your environment, how to design the optimal AD DS infrastructure for your enterprise, how to migrate objects between domains and forests, and how to enable authentication and resources access across multiple domains and forests.

#### Lessons

- Configure Domain and Forest Functional Levels
- Manage Multiple Domains and Trust Relationships
- Move Objects between Domains and Forests

# **Lab: Administer a Trust Relationship**

- Configure Functional Levels and DNS
- Create a Trust Relationship
- Validate a Trust Relationship
- Assign Permissions to Trusted Identities
- Implement Selective Authentication

# After completing this module, students will be able to:

- Configure domain and forest functional levels.
- Manage multiple domains and trust relationships.
- Move objects between domains and forests.

# **Module 10 Maintain Active Directory AND Operations Master Roles**

# **Lab: Backup and Restore Active Directory**

- Exercise 1: Back up Active Directory
- Exercise 2: Restore Active Directory and a Deleted OU

# After completing this module, students will be able to:

# **Lab: Transfer Operations Master Roles**

- Exercise 1: Identify Operations Masters.
- Exercise 2: Transfer Operations Master Roles