Active Directory Initial Configuration

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# Active Directory Initial Configuration

# Parts

## Description

This project involves setting up and configuring an Active Directory (AD) domain on Windows Server 2019, using three virtual machines (VMs). The tasks include:

* Install the Active Directory Domain Services (ADDS) role on Server 01.
* Promote Server 01 to a domain controller with a specified domain name.
* Organize the domain structure with Organizational Units (OUs).
* Create security groups and user accounts within the OUs.
* Create a local account on Server 02.
* Configure DNS settings to resolve the domain on Server 02.
* Join Server 02 to the domain as a member server.
* Verify login with local and domain accounts.
* Deploy a third Windows Server VM.
* Configure IP and DNS settings for the third server.
* Create a local account on the third server.
* Join the third server to the domain as a member server.
* Verify login with local and domain accounts.

Completing these tasks should provide valuable hands-on experience in AD domain setup, user management, and domain integration, essential for effective network administration in Windows environments.

## Preparation

**Before Beginning the Project:**

Before embarking on the Active Directory Initial Configuration, ensure the following preparations have been made:

* Set up two Windows Server Labs virtual machines (VMs).
* Before beginning Task 1, ensure both Server 01 and Server 02 VMs are operational.
* Verify that Server 01 has an adequately configured static IP address, gateway, and DNS configuration.
* Ensure the time zone and firewall ping policy are adjusted as needed.
* Confirm that Server 01 can successfully ping external resources such as [www.google.ca](http://www.google.ca/).
* Ensure Server 02 VM is accessible and in working order.
* Configure the DNS server address on Server 02 to match the IP address of Server 01 to ensure proper domain resolution.
* Confirm connectivity between Server 02 and Server 01.
* Deploy a third Windows Server VM.
* Configure the third server's IP address and DNS settings as specified in the assignment.
* Ensure the third server can resolve the domain and connect to Server 01.

## Observations

**Task 1: Create AD Domain and User Accounts**

* During Task 1, the following observations were made:
  + The installation of the Active Directory Domain Services (ADDS) role on Server 01.
  + The successful promotion of Server 01 to a domain controller with the specified domain name.
  + The creation of Organizational Units (OUs) and their hierarchical structure under the domain object.
  + The creation of a global security group and user accounts within the OUs.

**Task 2: Add a Domain Member**

* In Task 2, the following observations were documented:
  + The creation of a local account named "Service Desk" on Server 02.
  + Configure DNS settings on Server 02 to ensure domain resolution.
  + The successful joining of Server 02 to the domain as a member server using the provided service account.
  + Verification of log-in using both local and domain accounts.

**Task 3: Add a Second Domain Member**

* Task 3 involved the following observations:
  + The deployment of a third Windows Server VM and configuration as specified.
  + The creation of a local account named "Service Desk" on the third server.
  + Successful domain integration of the third server as a member server.
  + Encountered problems with Windows Computer name policy. (More details in the reflection).
  + Verify login functionality using both local and domain accounts.

## Screenshots

Create AD Domain and User Accounts

Create and configure a basic Active Directory domain.

1. Add the Active Directory Domain Services (ADDS) on your Server 01 VM.

A screenshot of a computer

Description automatically generated

The addition of ADDS is shown above.

A screenshot of a computer

Description automatically generated

Setting up Root domain name as instructed.

1. Once added, promote your Server 01 to a domain controller.

A screenshot of a computer

Description automatically generated

Server 01 has been successfully promoted to the domain controller, as shown above.

1. Create an Organizational unit named Accounts under the domain object.

A screenshot of a computer

Description automatically generated

Creating an OU “Accounts” in the AD Users and Computers Wizard.

1. Create three Organizational Units named Service Accounts, Administrators, and Employees under the Accounts OU you just created.

A screenshot of a computer

Description automatically generated

Creation of “Administrators” OU

A screenshot of a computer

Description automatically generated

Successful creation of all three OU’s under the Accounts OU.

1. Create a global security group in the Service Accounts OU.

A screenshot of a computer

Description automatically generated

Creation of a global security group in the Service Accounts OU.

1. Create a standard user account in the Service Accounts OU with the username joiner01.

A screenshot of a computer

Description automatically generated

The creation of a standard user account under the specified OU has been shown above.

1. Add the service account to the group.

A screenshot of a computer

Description automatically generated

Showcasing the addition of the user account into the security group.

A screenshot of a computer

Description automatically generated

Successful completion of the “Add to Group” Operation.

1. Create a standard user account for yourself with a username in the Employees OU.

A screenshot of a computer

Description automatically generated

Showing the creation of a standard user account under the specified OU.

1. Create an administrative user account with a username in the Administrators OU.

A screenshot of a computer

Description automatically generated

Show the administrator's OU when the user creation is completed.

1. Add your administrative user to the Domain Admins group.

A screenshot of a computer

Description automatically generated

Showing the addition of the user account into the Domain Admins process.

1. Log out of the Administrator account and log in to your administrative account.

A screenshot of a computer

Description automatically generated

Showcasing the successful login of my administrative account.

Add a Domain Member

Add a member server to the domain.

1. Create a local Service Desk account on your Server 02 VM.

A screenshot of a computer

Description automatically generated

Showing the creation of a local account.

1. Change the DNS server address in the IP configuration of your Server 02 to the IP address of your Server 01. Ensure that your Server 02 can resolve your domain.

A screenshot of a computer

Description automatically generated

Showcasing the IP configuration process above.

A screenshot of a computer screen

Description automatically generated

Ensuring that Server02 could resolve the domain.

1. Join your Server 02 to your domain as a member server using the service account you created in the previous task.

A screenshot of a computer

Description automatically generated

Adding Server 02 as a domain member.

1. After rebooting Server 02, ensure that you can log in using both the local Service Desk account and the domain accounts you created for yourself in the previous task.

A screenshot of a computer

Description automatically generated

Successful login of the local account.

A screenshot of a computer

Description automatically generated

Successful login of the specified domain account.

A screenshot of a computer

Description automatically generated

Successful login of the specified administrator domain account.

Add a Second Domain Member

Create another Windows Server and add it as a member server to the domain.

1. Create a third Windows Server VM and configure properties as in the previous lab exercise.

A screenshot of a computer

Description automatically generated

Showcasing the process of creating a third Windows VM with the specified instructions.

1. Set the host IP address to .23 and use the IP address of your domain controller for DNS.

A screenshot of a computer screen

Description automatically generated

Showing the IP configuration wizard above.

1. Create a local Service Desk account on your third server VM.

A screenshot of a computer

Description automatically generated

Showing the process of creating the local account above.

1. Ensure that your third server can resolve your domain.

A blue screen with white text

Description automatically generated

Ensuring a third server can resolve the domain, as shown above.

1. Join your third server to your domain as a member server using the service account you created in the previous task.

A screenshot of a computer

Description automatically generated

Successful in joining the third server as a domain member, as shown above and below.

A screenshot of a computer

Description automatically generated

Second Iteration of the Server03 Computer name.

1. After rebooting the second domain member server, ensure that you can log in using both the local Service Desk account and the domain account you created previously.

A screenshot of a computer

Description automatically generated

Successful login of the local account.

A screenshot of a computer

Description automatically generated

Successful login of the specified domain account.

A screenshot of a computer

Description automatically generated

Successful login of the specified administrative domain account.

## Reflection

This assignment provided hands-on experience in configuring an Active Directory (AD) domain and managing user accounts within the domain. Key reflections include:

* Understanding the role of Active Directory Domain Services (ADDS) in domain administration.
* Learning the steps to promote a Windows Server to a domain controller.
* Organizing and structuring an AD domain using Organizational Units (OUs).
* Creating security groups and user accounts for various purposes within the domain.
* Gaining proficiency in configuring DNS settings for domain resolution.
* Successfully integrating member servers into the domain.

These practical skills are crucial for effective network administration in Windows environments, enabling efficient management of user accounts and resources within the domain.

A screenshot of a computer

Description automatically generated

The above Screenshot shows the domain controller as Server 01- VM01.

A screenshot of a computer

Description automatically generated

The above screenshot shows the successful addition of the next two servers as domain members.

# References

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