Module: 14 Identity with Windows Server

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* **Active directory domain services**

1. **what is domain controller?**

* A domain controller (DC) is a server that manages network and identity security requests.

1. **describe forest, domain, tree, schema, OU, container, site, subnet, partition, trust relationship**

* Ans.

1. Forest

A forest is an ecosystem that's made up of many plants and animals. The Food and Agriculture Organization of the United Nations defines a forest as an area of land that's covered by trees, with trees that are higher than 5 meters tall and a canopy cover of more than 10 percent.

1. Domain

A domain is a network of devices and computers that are controlled by one company. It's also part of the web address nomenclature that's used to find a website or page.

1. Tree

A tree is a tall, woody plant that can live for a long time. It has a single stem or trunk and branches that support leaves.

1. Schema

A schema is a mental concept that helps organize and interpret information. It describes patterns of thinking and behavior that people use to interpret the world.

1. OU

An organizational unit (OU) is a subdivision within an Active Directory. It's used to place users, groups, computers, and other organizational units.

1. Container

A container is a receptacle or enclosure for holding a product. It's used in storage, packaging, and transportation.

1. Site

A site is the spatial location of a structure or set of structures. It can also be a space of ground occupied or to be occupied by a building.

1. Subnet

A subnet, or subnetwork, is a network inside a network. It makes networks more efficient by allowing network traffic to travel a shorter distance without passing through unnecessary routers.

1. Partition

A partition is a wall, screen, or divider that separates one part of a room, vehicle, or other space from another.

1. **what is active directory?**

* Active Directory (AD) is a Microsoft-owned directory service that runs on Windows Server.

1. **what is global catalog server?**

* A global catalog server (GC server) is a domain controller (DC) that has the global catalog feature enabled.

1. **what is ADC AND RODC?**

* ADC stands for Additional Domain Controller, and RODC stands for Read Only Domain Controller.

1. **what is operation master role?**

* An operations master is a domain controller that has been given one or more special roles in an Active Directory domain.

1. **type of operation master role and describe all role.**

* There are five different operations master roles: Schema, Domain Naming, Primary Domain Controller (PDC) emulator, Relative Identifier (RID), and Infrastructure.

1. **difference between transferring and seizing role**

* The key difference in both the cases is – in Scenario-1, we still have connectivity between DC-01 and DC-02 whereas in Scenario-2, we don't have any connectivity between DC-01 and DC-02.

1. **password policy**

* A password policy is a set of rules designed to enhance computer security by encouraging users to employ strong passwords and use them properly.

1. **what id profile and type of profile?**

* A profile is a brief description of a person or organisation, usually written in a resume, article or document.

1. **group nesting and scope, type of group**

* There are three types of group scopes in Active Directory: Universal, Global, Domain local.
* **Practical**

1. **install ADDS and create a new forest**

* Done.

1. **give membership of pc to domain**

* Done.

1. **create a ADC**

* Done.

1. **create RODC and password replication**

* Done.

1. **create a new site**

* Done.

1. **create a new child domain**

* Done.

1. **create a new tree**

* Done.

1. **create a new user with GUI and CLI**

* Done.

1. **create roaming profile**

* Done.

1. **create OU and give delegation**

* Done.

1. **create a group**

* Done.

1. **transfer roles—PDC, RID , schema master, Doamin name master—GUI and ntdsutil, IFM**

* Done.
* **Advance feature**

1. **describe account policy**

* Account policies in Windows Server 2016 are the primary controls for authentication to Windows computers, Active Directory, and other applications that use Windows authentication.

1. **describe account lockout policy**

* An account lockout policy in Windows Server 2016 prevents brute-force password attacks by disabling a user account after a specified number of failed attempts.

1. **what is trust relationship**

* Trust relationships are an administration and communication link between two domains.

1. **type of trust relationship describe all trust**

* Transitive and non-transitive trusts.

1. **what is site and subnet ?**

* A site is made up of one or more Internet Protocol (IP) subnets that are linked by high-speed and reliable connections.
* **Practical**

1. **manage active directory offline**

* Done.

1. **restore object of active directory from AD Recycle bin**

* Done.

1. **backup active directory**

* Done.

1. **manage active directory replication---repadmin DcDiag**

* Done.

1. **create multiplae UPN suffix multidomain enviourment**

* Done.

1. **configure trust between forest check with login**

* Done.

1. **configure ADDS sites and subnet**

* Done.
* **Group Policy**

1. **what is group policy?**

* Group Policy is a built-in Active Directory feature that allows network administrators to configure users and computers.

1. **what is default policy? Default Domain and domain controller**

* A default domain policy (DDP) is a group policy object (GPO) that applies to all users and systems in a domain.

**3. what is user configuration and computer configuration**

* Computer configuration refers to how a computer's components are arranged and which options are selected. This can include the hardware, software, firmware, and documentation.

**4.what is GPO?**

* GPO can stand for Group Policy Object, which is a virtual collection of policy settings. GPOs are managed through Microsoft Active Directory.

1. **define software setting, windows setting, and administrative templates**

* Administrative Templates are used to regulate access to the Control Panel, system settings, and network resources.

1. **link GPO**

* Navigate to the desired OU, to which you want to link a GPO. Right click on this OU and select "Link an existing GPO" .

1. **delegation GPO management**

* GPO delegation is a technique that allows you to assign different permissions and roles to different users or groups for managing GPOs.

1. **inheritance policy**

* Both can inherit the total property if there are no children, relatives or distant kin.

1. **filtering**

* Filters are commonly used within web-based applications to narrow the user's list of choices to a more manageable and usable number.

1. **script, templates**

* A script template is a packaged script that can be reused.
* **Practical**

1. **backup restore import and copy GPO**

* Done.

1. **force group policy command**

* Done.

1. **check group policy settings**

* Done.

1. **configure folder redirection**

* Done.

1. **software installation assign and publish**

* Done.

1. **drive map through policy**

* Done.
* **Certification services**

1. **purpose of certification**

* VPN authentication, email security, Smart Card security, managed device authentication, and much more.

1. **certificate service and its role service –certificate authority, certificate enrolment policy**

* Certificate services

A certificate service is a collection of services that allows a certificate authority (CA) to issue, renew, and revoke certificates. A certificate service is usually a PKI implementation.

* Certificate authorities

CAs are responsible for verifying domain names and organizations to ensure secure communication. CAs also issue digital certificates that establish trust in electronic transactions and communications.

* Certificate enrollment

Certificate enrollment is the process by which users request x.509 certificates from CAs.

* **web service**

1. **standalone v/s enterprise CA**

* Standalone and Enterprise CAs are different types of Microsoft Certificate Authorities.

1. **root CA and subordinate CA**

* A root certificate authority (CA) is a top-level authority that owns one or more trusted roots. A subordinate CA is a certificate authority that issues certificates under the trust umbrella of the root CA.

1. **describe certificate templates and how to use it**

* A certificate template is a blueprint that specifies how a certificate should be created. It contains information about the certificate's purpose, validity period, subject and issuer, and other relevant details. Certificate templates are used by certificate authorities (CAs) to issue certificates to users and devices.
* **Practical**

1. **install certiface services ---certifacte authority and web enrolment**

* Done.

1. **issue certificate through web enrolment and make secure web site**

* Done.

1. **self-signed certificate**

* Done.

1. **mange certificate---using template and issue certificate for computer**

* Done.

1. **backup CA**

* Done.
* **ADFS**

1. **what is federation services**

* a Windows operating system feature that allows users to share identity data inside and outside of Microsoft's network.

1. **ADFS service component**

* Active Directory Federation Services (ADFS) is a Microsoft-created software component that provides Single Sign-On (SSO) access to Windows Server operating system users.

1. **ADFS requirement**

* Active Directory Federation Services (ADFS) is a Microsoft solution that authenticates users into applications that are incompatible with Active Directory (AD) and Integrated Windows Authentication (IWA).

1. **multifactor authentication**

* a multi-step account login process that requires users to enter more information than just a password.

1. **web application proxy**

* This new version of Web Application Proxy provides support to publish an app using HTTP basic by enabling the HTTP app to receive a non-claims
* **Practical**

1. **Install ADFS service and configure between two trusted organizations (relay party trust)**

* Done.

1. **multifactor authentication**

* Done.
* **ADRMS**

1. **what is ADRMS**

* a server software that protects documents and limits the operations authorized users can perform on them.

1. **how to secure data and type of security 3 what is service account**

* A service account is a dedicated user account that runs specific services or applications on the Windows operating system.
* **Practical**

1. **install ADRMS and secure data (different security apply)**

* Done.