<u>Active Directory</u>

- Active Directory (AD) is a directory service developed by Microsoft for Windows domain networks.
- It provides a centralized database for managing and organizing network resources, such as users, computers, and applications.
- Active Directory is widely used in enterprise networks, and knowledge of its functionality is crucial for system administration and network management roles.

IDA Technologies

- IDA Technologies stands for Identity and Access Management Technologies.
- It refers to a set of technologies and practices used to manage user identities, access rights, and security policies within an organization.
- IDA Technologies often integrate with Active Directory to provide secure and efficient access control.
- Understanding IDA Technologies is essential for implementing secure access control and identity management solutions.

Schema

- The Schema in Active Directory defines the structure and attributes of objects that can be stored in the directory.
- It determines the types of objects that can be created and the properties that can be associated with them.
- Modifying the Schema requires careful planning and consideration, as it affects the entire Active Directory environment.

Global Catalog

- The Global Catalog (GC) is a distributed data repository in Active Directory that contains a subset of attributes for all objects in the forest.
- It provides a way to search and locate objects across multiple domains in a forest without the need for referrals.
- The Global Catalog is essential for efficient and quick searches in a large Active Directory environment.

Components of AD Infrastructure

- Activity Directory Data Store
  - The Active Directory Data Store is a database that stores all the information related to the Active Directory domain.
  - It includes information about users, groups, computers, and other objects in the network.
- Domain Controller
  - A Domain Controller (DC) is a server that manages and authenticates user access within a domain.
  - It stores a copy of the Active Directory database and handles authentication requests from clients.
- Domain
  - A Domain is a logical grouping of network objects, including users, computers, and resources.
  - It provides a centralized administration and security boundary within the network.
- Forest
  - A Forest is a collection of one or more domains that share a common schema and global catalog.
  - It represents the highest level of organization in an Active Directory environment.
- Tree
  - A Tree is a hierarchical structure of domains within a forest.
  - It allows for the organization and management of multiple domains under a common root domain.
- Functional Level
  - Functional Level represents the level of features and capabilities available in an Active Directory domain or forest.
  - It determines the compatibility and functionality of domain controllers within the environment.
- Organizational Unit (OU)
  - An Organizational Unit (OU) is a container within a domain that is used to organize and manage objects.
  - It provides a way to delegate administrative tasks and apply group policies to specific sets of objects.
- Sites
  - Sites are physical or geographical locations within an Active Directory network.
  - They are used to optimize network traffic and replication by grouping domain controllers and resources based on their physical proximity.