

Logical Active Directory Components

AD DS Schema

The AD DS Schema:

- Defines every type of object that can be stored in the directory
- Enforces rules regarding object creation and configuration

Object Types	Function	Examples
Class Object	What objects can be created in the directory	<ul style="list-style-type: none">• User• Computer
Attribute Object	Information that can be attached to an object	<ul style="list-style-type: none">• Display name

Source: Microsoft Virtual Academy

Domains

Domains are used to group and manage objects in an organization



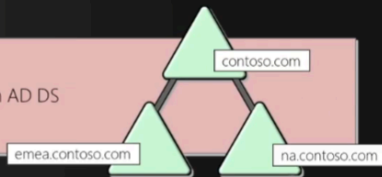
Domains:

- An administrative boundary for applying policies to groups of objects
- A replication boundary for replicating data between domain controllers
- An authentication and authorization boundary that provides a way to limit the scope of access to resources

Source: Microsoft Virtual Academy

Trees

A domain tree is a hierarchy of domains in AD DS



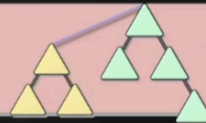
All domains in the tree:

- Share a contiguous namespace with the parent domain
- Can have additional child domains
- By default create a two-way transitive trust with other domains

Source: Microsoft Virtual Academy

Forests

A forest is a collection of one or more domain trees



Forests:

- Share a common schema
- Share a common configuration partition
- Share a common global catalog to enable searching
- Enable trusts between all domains in the forest
- Share the Enterprise Admins and Schema Admins groups

Source: Microsoft Virtual Academy

Organizational Units (OUs)

OUs are Active Directory containers that can contain users, groups, computers, and other OUs



OUs are used to:

- Represent your organization hierarchically and logically
- Manage a collection of objects in a consistent way
- Delegate permissions to administer groups of objects
- Apply policies

Source: Microsoft Virtual Academy

Trusts

Trusts provide a mechanism for users to gain access to resources in another domain

Types of Trusts	Description	Diagram
Directional	The trust direction flows from trusting domain to the trusted domain	A diagram showing two green triangles representing domains. A solid red arrow points from the left domain to the right domain, labeled 'TRUST'. A dashed red arrow points from the right domain back to the left domain, labeled 'Access'.
Transitive	The trust relationship is extended beyond a two-domain trust to include other trusted domains	A diagram showing three green triangles representing domains. A solid red arrow points from the left domain to the middle domain, labeled 'Trust & Access'. A solid red arrow points from the middle domain to the right domain, labeled 'Trust & Access'. A dashed red arrow points from the left domain to the right domain, labeled 'Access'.

- All domains in a forest trust all other domains in the forest
- Trusts can extend outside the forest

Source: Microsoft Virtual Academy

Objects live inside OUs.

Objects

Object	Description
User	<ul style="list-style-type: none">Enables network resource access for a user
InetOrgPerson	<ul style="list-style-type: none">Similar to a user accountUsed for compatibility with other directory services
Contacts	<ul style="list-style-type: none">Used primarily to assign e-mail addresses to external usersDoes not enable network access
Groups	<ul style="list-style-type: none">Used to simplify the administration of access control
Computers	<ul style="list-style-type: none">Enables authentication and auditing of computer access to resources
Printers	<ul style="list-style-type: none">Used to simplify the process of locating and connecting to printers
Shared folders	<ul style="list-style-type: none">Enables users to search for shared folders based on properties

Source: Microsoft Virtual Academy

1 / 5

How is Active Directory authentication handled?

Using session tokens

correct

Using Kerberos tickets



Using openID

Continue >

2 / 5

Active Directory can be exploited without using patchable exploits?

correct

True



False

◀ Back

Continue ▶

3 / 5

What is the roles are carried out by the Domain Controller? (multiple choice)

correct

Provide authentication and authorization



correct

Allow administrative access to manage user accounts



incorrect

Monitors the network for intrusions



◀ Back

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4 / 5

Trees are a...

correct

Group of Domains



A collection of Domain Controllers

A structure of user objects within a Domain

◀ Back

Continue ▶

5 / 5

Forests are a...

A collection of Domain Controllers

A structure of user objects within a Domain

correct

A collection of Domain Trees



◀ Back

Continue ▶
