

# Windows Server (Server based network)



# رئوس مطالب



- معرفی سیستم عامل های مطرح شبکه
- نصب سیستم عامل شبکه بر روی کامپیوتر سرور
- بررسی سرویس های مختلف Windows 2003 server

# سیستم عامل های شبکه شرکت ماکروسافت



- Microsoft
  - Windows NT 4 Server
  - Windows 2000 Server series
  - Windows 2003 Server, Enterprise Server, Data Centre Server, etc....

# سیستم عامل های شبکه UNIX



- Various breeds of Unix
  - SCO Unix
  - Sun Solaris
- Various implementations of Linux
  - Red Hat
  - SuSe
  - Mandrake

# میزان محبوبیت سیستم عامل های شبکه



- Windows 2000/2003: 40%
- Unix: 40% but predicted to fall
- Linux: 15% but predicted to rise

# کدام سیستم عامل را انتخاب نماییم ؟



• قبل از انتخاب نیاز های سازمان خود را مورد بررسی قرار دهید

- Unix/Linux: arguably the best for security, stability and Fault tolerance provided that it is set up properly
- Windows 2000/2003: much easier to administer than any of the various breeds of Unix or Linux

# سیستم عامل مورد بررسی



سیستم عامل مورد بررسی ما در این دوره

Windows 2003

می باشد

# کدام نوع از Windows 2003 مقدمات نصب :



- Three types now available:
  - Windows 2003
    - ✦ for 64-bit CPUs
  - Windows 2003 x64
    - ✦ for 64-bit CPUs
  - Windows 2003 R2
    - ✦ SP1



# گزینه های قابل انتخاب در Windows 2003



- The Windows 2003 setup program has several options, to cater for a range of network environments:
  - Windows 2003 Server
  - Windows 2003 Advanced Server
  - Windows 2003 Datacenter Server
- Important to establish which is most appropriate beforehand...
  - <http://www.microsoft.com/windowsserver2003/evaluation/features/compareeditions.mspx>

# مقدمات نصب : مسائل مربوط به کلاینت



- Smooth connectivity between client and server essential
- Need to establish currently installed software on client machines:
  - which operating system?
  - which applications?
- May be that older client OS may not readily interface properly with very recent versions of the NOS (eg won't support “active directory”)

# مقدمات نصب : مسائل مربوط به سخت افزار سرور



- همواره بایستی انتخاب سیستم عامل شبکه قبل از خرید سرور انجام گیرد
- مطمئن شوید ... , RAM , CPU تطابق لازم برای اجرای مناسب و موثر سیستم عامل را دارد
  - هم اکنون
  - برای ۲ سال بعد

# مقدمات نصب : سازگاری قطعات



- یک اصل : هیچ چیز را “فرض” نگیرید
  - مایکروسافت ( یا هر شرکت ارائه دهنده سیستم عامل شبکه )  
بایستی یک لیست از قطعات سازگار (HCL) با محصولات  
خود را ارائه نماید
- کلیه قطعات را با این لیست کنترل نمایید

# HCL نکات مهم درباره



- اگر قطعه شما در HCL نیست شرکت سازنده قطعه ممکن است نرم افزاری را جهت حفظ سازگاری نوشته باشد که شما می توانید آن را download نمایید
- ✦ سایت شرکت سازنده قطعه را کنترل نمایید
- اگر هیچ یک از موارد فوق موجود نبود نبایستی از این قطعه استفاده نمایید

# مقدمات نصب : انتخاب File System



• انواع File System های قابل استفاده در ویندوز :

- FAT (i.e. DOS, no file/folder security, <2Gb)
- FAT32 (Windows 98/Me, as above, >2Gb)
- NTFS (designed for NT – file/folder level security)

# Active Directory



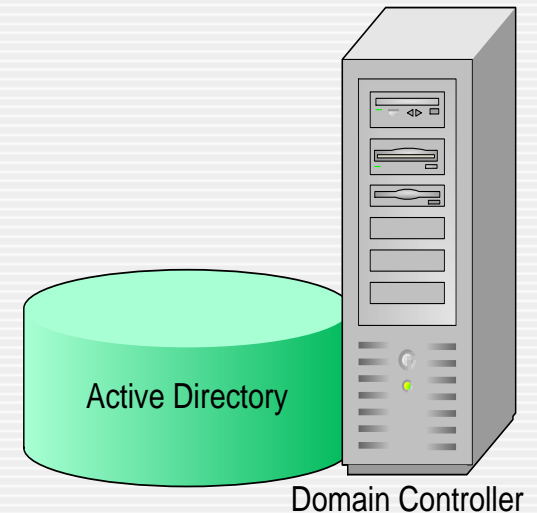
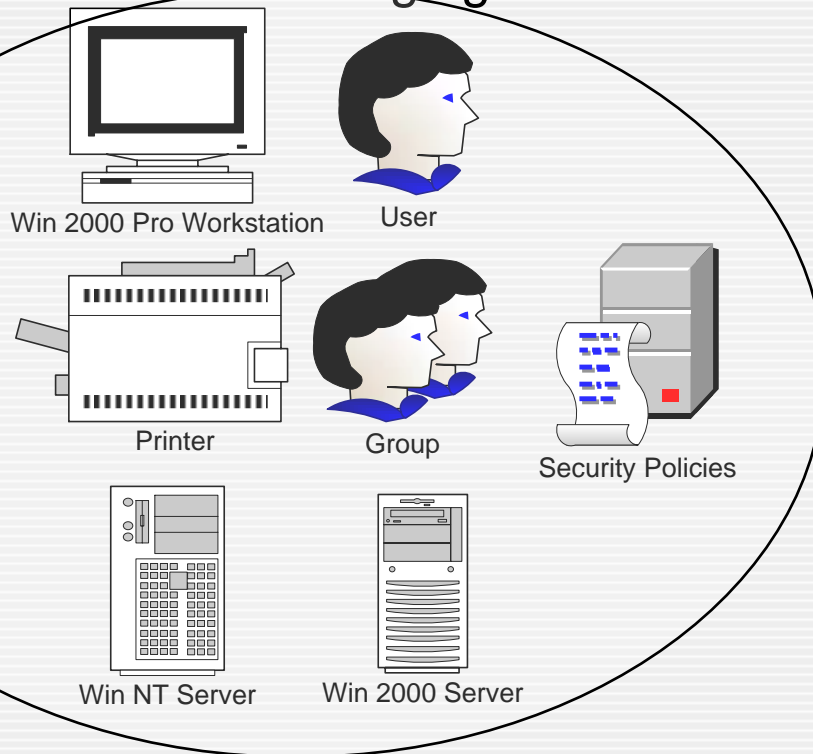
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# Active Directory

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AD =

A Central Database on a **Domain Controller** for storing Network resources and security policies  
+  
Tools for managing network resources (find, add, remove, etc.)



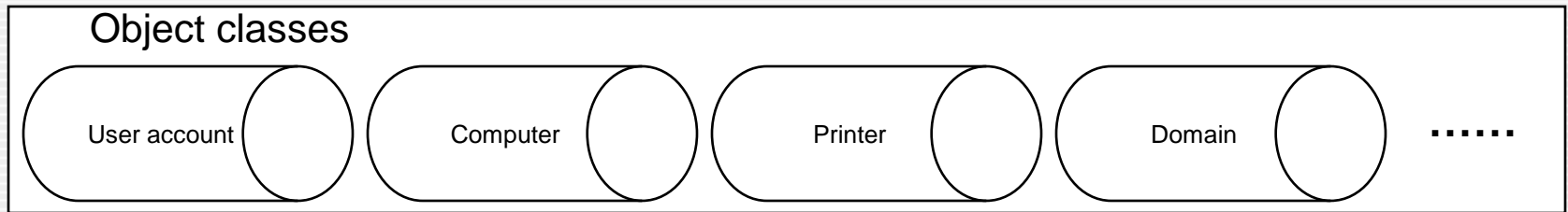
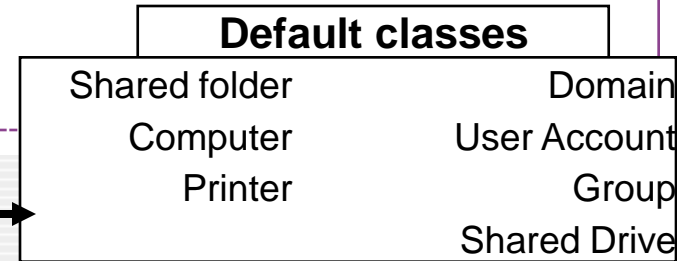
Used for:

- Resource lookup (Searching for specific resources)
- User authentication (login)



# Active Directory structure

- Individual resources are called **objects**
- Objects belong to **classes**
- Each Class has its own **attributes** defined in the **Schema**



- Schema
- Object name
  - Object's Globally Unique Identifier (GUID)
  - Required attributes
  - Optional attributes
  - Syntax
  - Parent relationship

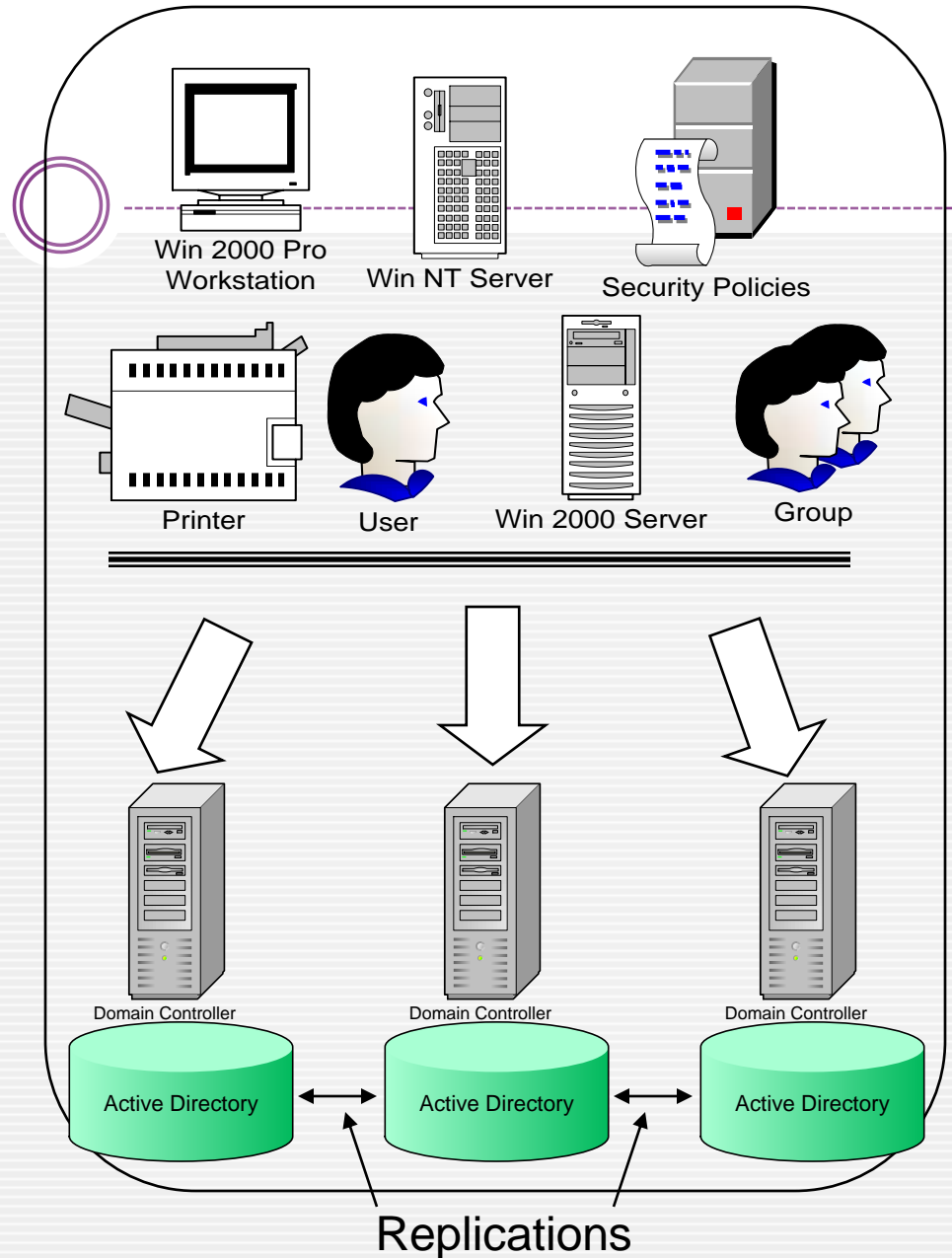
- Examples:
- Username
  - User's full name
  - Password

- Examples:
- Account description
  - Remote access OK

Schema = Database design. Elements used in the definition of each object contained in the Active Directory

# Replication

- In a Windows 2003 network, you can create multiple domain controllers (DCs)
- Each DC stores a copy of the Active Directory
- Each DC replicates changes in its copy of Active Directory to other DCs.



# Namespace and DNS

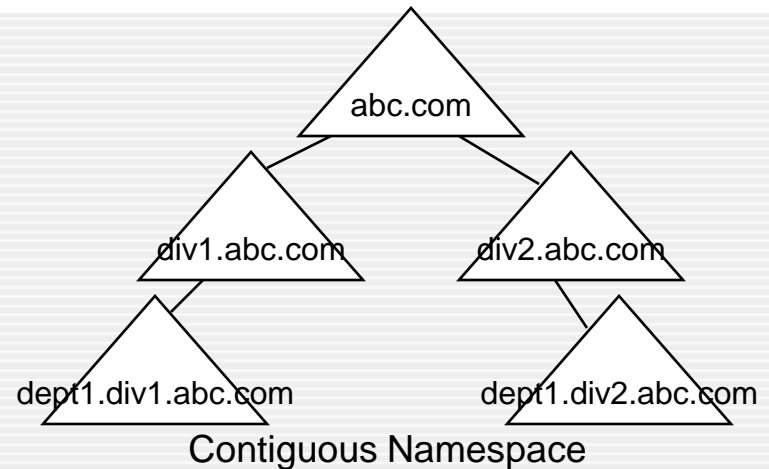


- Domain Name Service (DNS): Service that performs name resolutions, i.e. conversions between IP addresses and domain names
- Name resolutions take place in a logical area of the network called Namespace

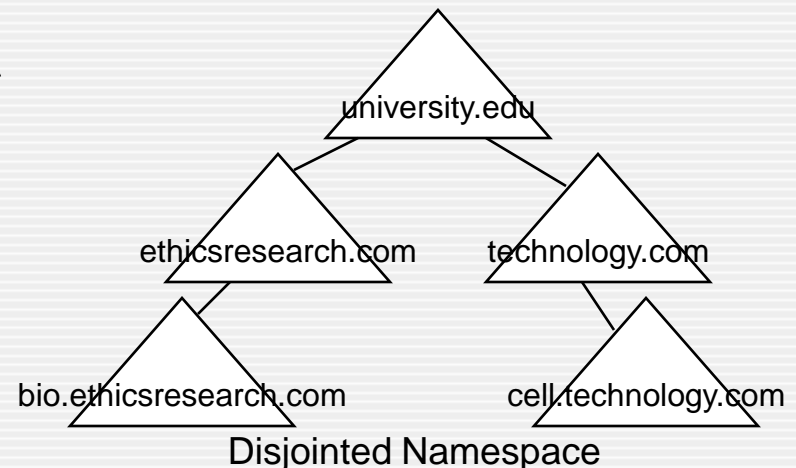
# Types of namespaces



- **Contiguous namespace:** A namespace in which every child object contains the name of its parent object

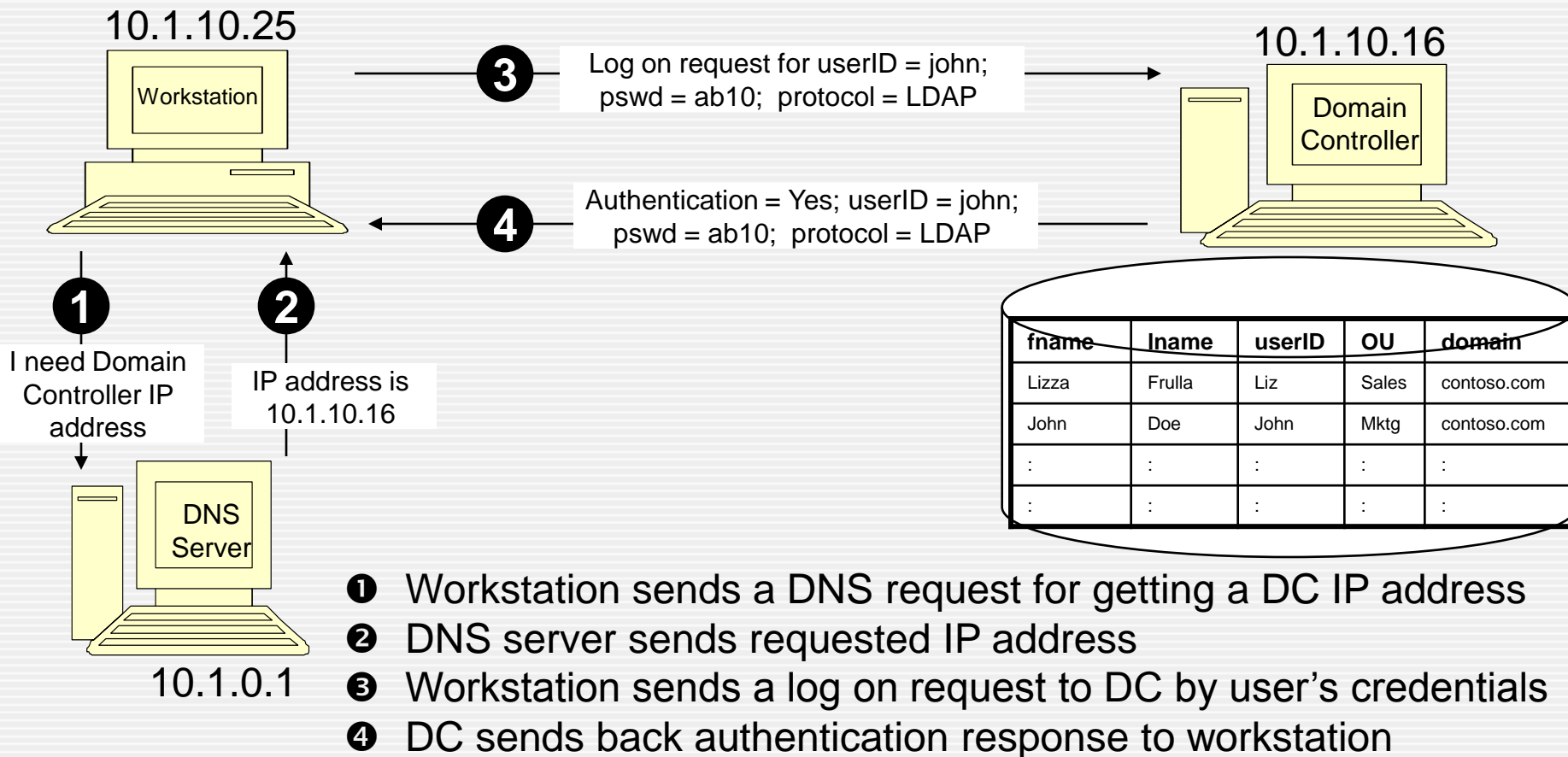


- **Disjointed namespace:** A namespace in which the child object name does not resemble the name of its parent object



# Active directory and DNS

AD cooperates with DNS during logon process •

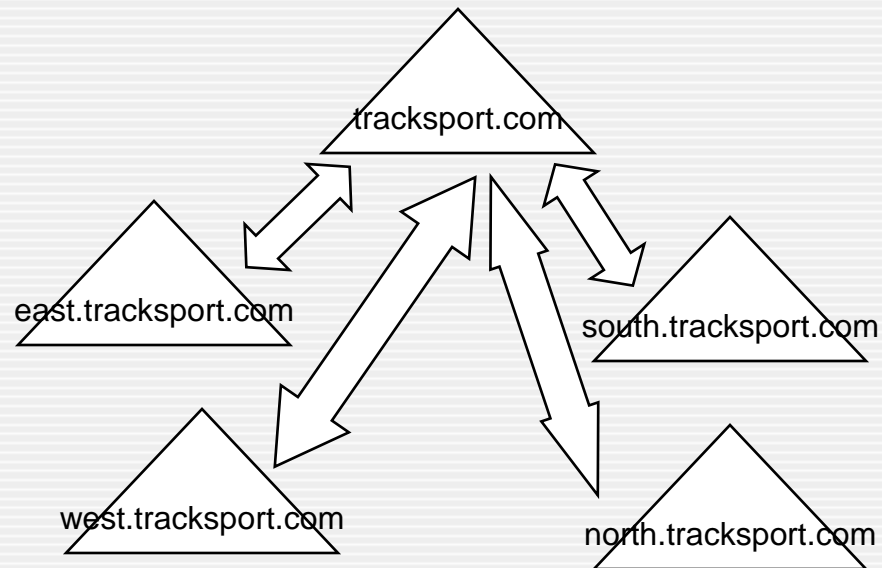


# Tree



A tree contains one or more domains and has the following characteristics:

- mains are represented in a contiguous namespace

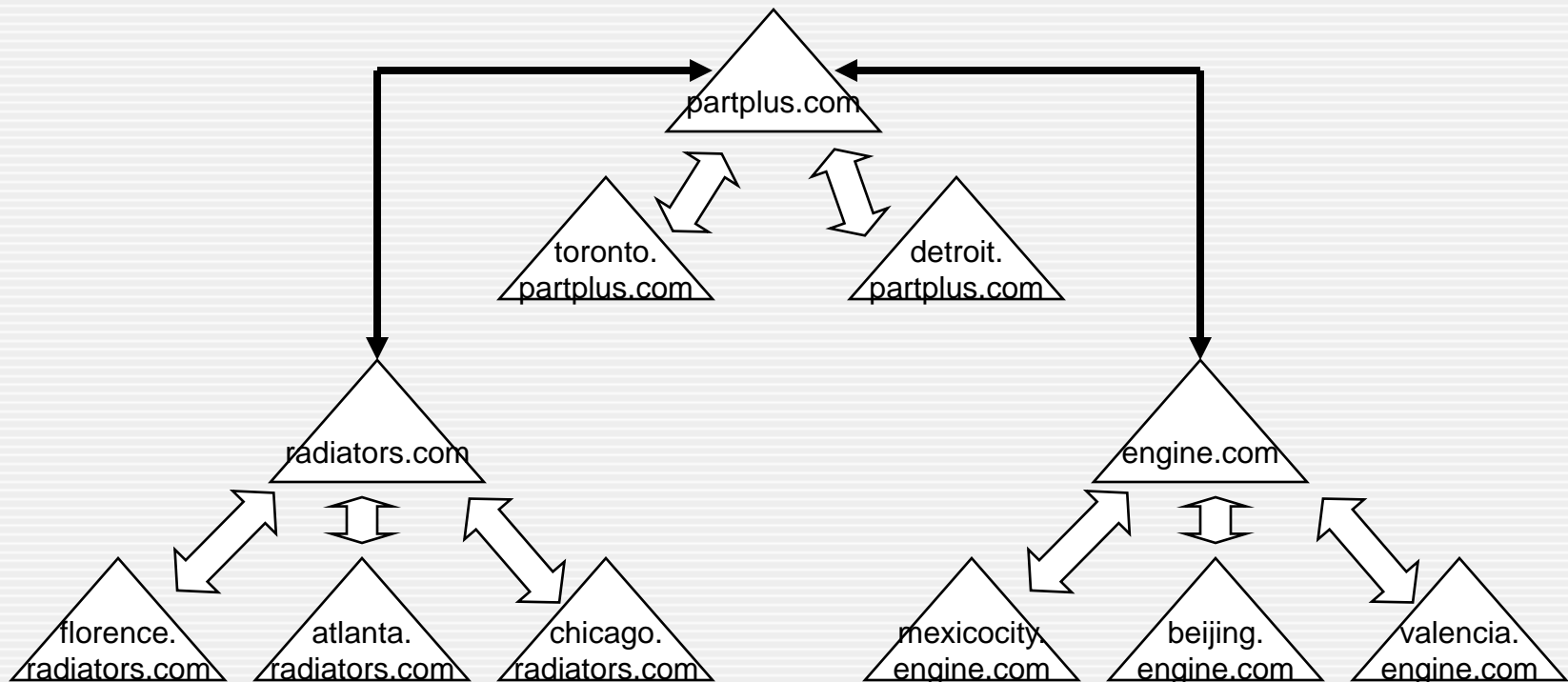


# Forest



Usually, a forest consists in more than one tree and has the following characteristics:

- The trees use a disjointed namespace



# Active Directory نصب





# Starting DC Promo

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- ◆ Start -> Run -> DCPromo
- ◆ Installation Wizard appears




# Setting the DC role



**Active Directory Installation Wizard** [X]


**Domain Controller Type**  
Specify the role you want this server to have.



Do you want this server to become a domain controller for a new domain or an additional domain controller for an existing domain?

**Domain controller for a new domain**  
Select this option to create a new child domain, new domain tree, or new forest. This server will become the first domain controller in the new domain.

**Additional domain controller for an existing domain**

 Proceeding with this option will delete all local accounts on this server.  
All cryptographic keys will be deleted and should be exported before continuing.  
All encrypted data, such as EFS-encrypted files or e-mail, should be decrypted before continuing or it will be permanently inaccessible.

< Back    Next >    Cancel

# Setting the Domain type



**Active Directory Installation Wizard** [X]

**Create New Domain** 

Select which type of domain to create.

Create a new:

- Domain in a new forest**  
Select this option if this is the first domain in your organization or if you want the new domain to be completely independent of your current forest.
- Child domain in an existing domain tree**  
If you want the new domain to be a child of an existing domain, select this option. For example, you could create a new domain named `headquarters.example.microsoft.com` as a child domain of the domain `example.microsoft.com`.
- Domain tree in an existing forest**  
If you don't want the new domain to be a child of an existing domain, select this option. This will create a new domain tree that is separate from any existing trees.

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# Establishing a DNS Name



**Active Directory Installation Wizard** [X]

**New Domain Name**  
Specify a name for the new domain.

Type the full DNS name for the new domain  
(for example: headquarters.example.microsoft.com).

Full DNS name for new domain:

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# NetBIOS Domain Name



**Active Directory Installation Wizard** [X]

**NetBIOS Domain Name**  
Specify a NetBIOS name for the new domain.

This is the name that users of earlier versions of Windows will use to identify the new domain. Click Next to accept the name shown, or type a new name.

Domain NetBIOS name:

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# Database and Log Folder Locations



**Active Directory Installation Wizard**

**Database and Log Folders**  
Specify the folders to contain the Active Directory database and log files.

For best performance and recoverability, store the database and the log on separate hard disks.

Where do you want to store the Active Directory database?

Database folder:  
C:\WINDOWS\NTDS

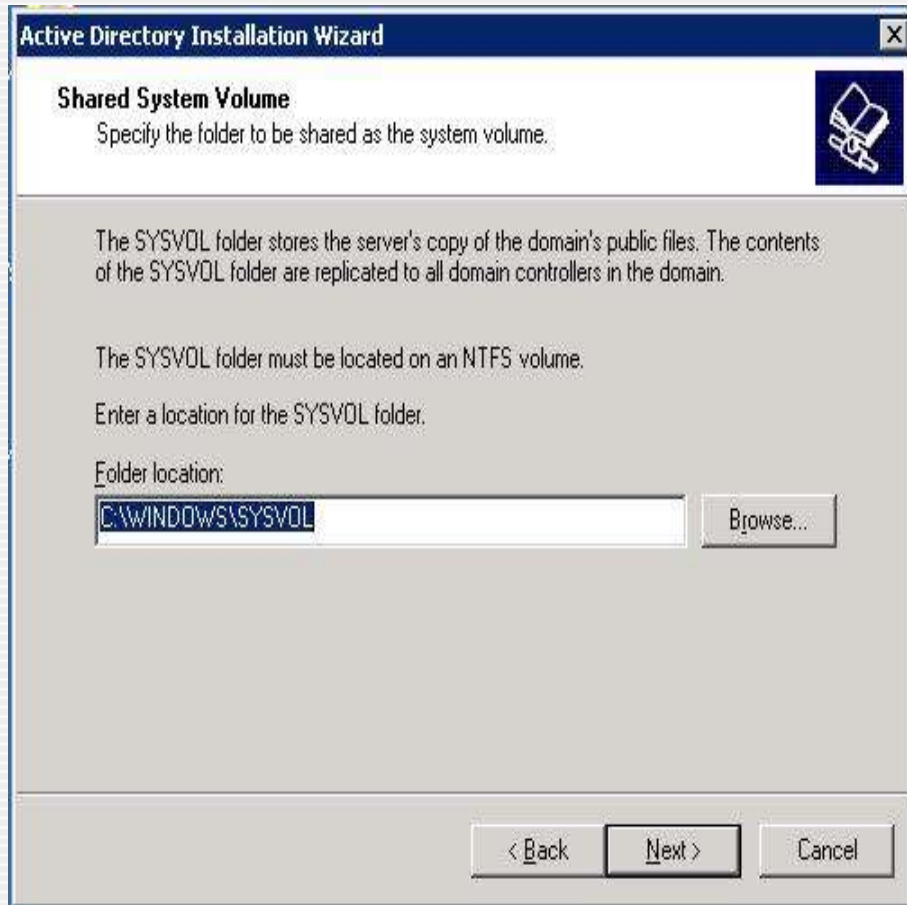
Where do you want to store the Active Directory log?

Log folder:  
C:\WINDOWS\NTDS

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- Specify the AD database and logfile locations
  - %systemroot%\NTDS default
  - Separate drives

# Shared System Volume Location



- Specify the shared system volume location
  - Scripts
  - Policies
- NT
  - netlogon
- NTFS
  - Disk Manager
  - convert /?



# Setting Permissions Compatibility



**Active Directory Installation Wizard** [X]

**Permissions**  
Select default permissions for user and group objects.



Some server programs, such as Windows NT Remote Access Service, read information stored on domain controllers.

Permissions compatible with pre-Windows 2000 server operating systems  
Select this option if you run server programs on pre-Windows 2000 server operating systems or on Windows 2000 or Windows .NET server operating systems that are members of pre-Windows 2000 domains.

 Anonymous users can read information on this domain.

Permissions compatible only with Windows 2000 or Windows .NET server operating systems  
Select this option if you run server programs only on Windows 2000 or Windows .NET server operating systems that are members of Active Directory domains. Only authenticated users can read information on this domain.


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# Setting DS Restore Mode Administrator Password



**Active Directory Installation Wizard** [X]

**Directory Services Restore Mode Administrator Password** 

This password is used when you start the computer in Directory Services Restore Mode.

Type and confirm the password you want to assign to the Administrator account used when this server is started in Directory Services Restore Mode.

The restore mode Administrator account is different from the domain Administrator account. The passwords for the accounts might be different, so be sure to remember both.

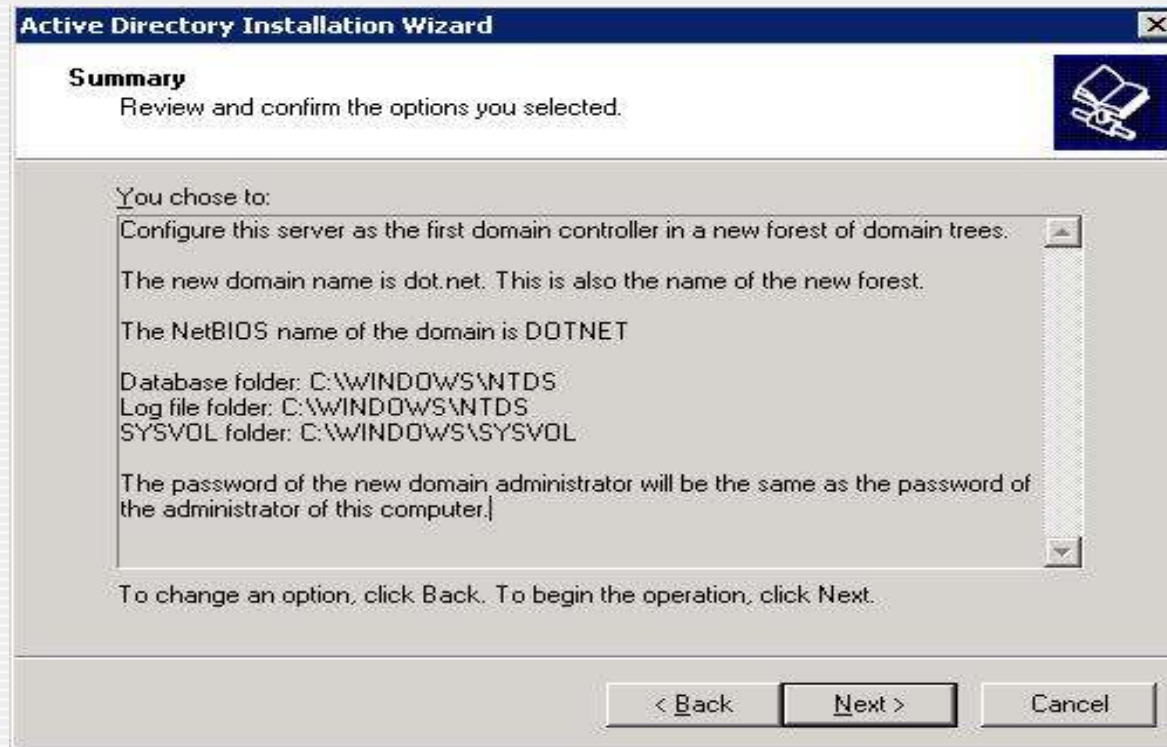
Restore Mode Password:

Confirm password:

For more information about Directory Services Restore Mode, see [Active Directory Help](#).

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# Review of Options



# Active Directory Installation Complete

