1, **What is the deference between hot booting and cold booting ?**

Ans when you click on the start button > shutdown you have two options. one is restart (warm boot) reboots the computer without turning it completely off. cold boot (shutdown) completely turns your computer off. you then have to push the startup button to turn it back on.

2, How to increase Virtual Memory?

1.Click Start, and then click **Control Panel**.  
2.Click **Performance and Maintenance**, and then click System.  
3.On the Advanced tab, under Performance, click **Settings**.  
4.On the Advanced tab, under **Virtual memory**, click Change.  
5.Under **Drive [Volume Label]**, click the drive that contains the paging file that you want to change.  
6.Under **Paging file size** for selected drive, click to **Custom size** check box. You can enter the amount of memory you would like to reserve for Virtual memory by entering the initial and maximum size.   
7.Click **Set**  
When you are prompted to restart the computer, click Yes.  
**Special Note:** You should choose the same amount for the initial size and maximum size. This will Stop your CPU from constantly changing the paging file.

3,To uninstall Internet Explorer 8, follow these steps:

1. Exit all programs.
2. Click **Start**

Start button

, and then click **Control Panel**.

1. Click **Programs and Features**.
2. In the Task pane, click **Turn Windows features on or off**.
3. In the list of windows features, click to clear the check box next to **Internet Explorer 8**.
4. In the window that opens, click **Yes**in response to the warning message.

The system restarts after Internet Explorer 8 is uninstalled

### 4. Manual steps to back up the registry in in Windows XP

Click **Start**, click **Run**, type **%SystemRoot%\system32\restore\rstrui.exe**, and then click **OK**.

On the **Welcome to System Restore** page, click Create a restore point, and then click **Next**.

On the **Create a Restore Point**page, type a name for the restore point and then click **Create**

After the restore point has been created, click **Close**.

**Note** If System Restore is turned off, you receive a message that asks whether you want to turn on System Restore now. Click **Yes**. Then, in the **System Properties**dialog box, click to clear the **Turn off System Restore**check box, click **OK**, and then repeat this step.

**Manual steps to restore the registry in Windows XP**

**Use System Restore to undo registry changes in in Windows X**

Click **Start**, click **Run**, type **%SystemRoot%\System32\Restore\Rstrui.exe**, and then click **OK**.

On the **Welcome to System Restore** page, click **Restore my computer to an earlier time** (if it is not already selected), and then click **Next**.

On the **Select a Restore Point** page, click the system checkpoint. In the **On this list select the restore point** area, click an entry that is named "Guided Help (Registry Backup)," and then click **Next**. If a System Restore message appears that lists configuration changes that System Restore will make, click**OK**.

On the **Confirm Restore Point Selection** page, click **Next**. System Restore restores the previous Windows XP configuration and then restarts the computer.

Log on to the computer. When the **System Restore confirmation** page appears, click **OK.**.

5, **To disable APIPA**

1. From the Windows **Start** menu, choose **Run**, and then type regedit. The Registry Editor is displayed.
2. Navigate to the key **HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters**.
3. From the **Edit** menu, choose **New DWORD value**.
4. Name the value IPAutoconfigurationEnabled and enter a value of 0.

7, What is the ip address range of apipa

IP addresses assigned by Windows Server 2003 APIPA are within the range 169.254.0.1 through 169.254.255.254 inclusive, in accordance with specifications created by the Internet Assigned Numbers Authority (IANA). APIPA also sets the subnet mask on the network to 255.255.255.0.

**WHAT IS A DIFFERENCE BETWEEN PRIMARY AND SECONDARY STORAGE DEVICES?**

**Storage devices are used to store data and program permanently. These devices are used to store large volume of data and program. Storage device are also called as**  
**1: PRIMARY STORAGE DEVICES.**  
**2: SECONDARY STORAGE DEVICES.**  
**3: AUXILIARY STORAGE DEVICES.**

**WHAT IS PRIMARY AND SECONDARY STORAGE DEVICES?**  
**There is no official definition of these two terms, primary storage typically refers to random access memory (RAM), while secondary storage refers to the computer's internal hard drive. )**

**EXAMPLES OF PRIMARY STORAGE DEVICES:**  
**Following are some examples of primary storage devices.**  
**1: RAM.**  
**2: ROM.**  
**3: Cache MEMORY.**

**EXAMPLES OF SECONDARY STORAGE DEVICES:**

###### **Internal Hard Disk Drive**

###### **External hard disk drives**

###### Differentiate between RAM and ROM?

###### RAM stands for Random Access Memory. It can store information and have new information stored over it later. And it’s a physical device you can change it

## Types of RAM

DDR (Double Data Rate), DDR2 and SDRAMROM stands for Read Only Memory. It can’t be written-over

## Types of ROM

PROM (Programmable Read-Only Memory) and CD-ROM

[What is cache memory?](http://www.coolinterview.com/interview/33914/)

Cache memory is random access memory (RAM) that a computer microprocessor can access more quickly than it can access regular RAM. As the microprocessor processes data, it looks first in the cache memory and if it finds the data there, it does not have to do the more time-consuming reading of data from larger memory.

[What is the difference between 32 bit and 64 bit memory?](http://www.coolinterview.com/interview/19247/)

The terms 32-bit and 64-bit refer to the way a computer's processor (also called a CPU), handles information. The 64-bit version of Windows handles large amounts of random access memory (RAM) more effectively than a 32-bit system.

[What is Virtual Memory?](http://www.coolinterview.com/interview/19244/)

**Virtual memory** is storage space on your computer’s hard disk that Windows uses in conjunction with random access **memory**(RAM).

**What is NVRAM?**

NVRAM (Non-Volatile Random Access Memory) is a type of Random Access Memory (RAM) that retains its information when power is turned off. The NVRAM is a small 24 pin DIP (Dual Inline Package) integrated circuit chip and is thus able to obtain the power needed to keep it running from the CMOS battery installed in your motherboard. It keeps track of various system parameters such as serial number, Ethernet MAC (Media Access Control) address, HOSTID, date of manufacture.

[How many logical drives is it possible to fit onto a physical disk?](http://www.coolinterview.com/interview/33806/)

Maximum of 24 logical drives. The extended partition can only have 23 logical drives  
Max of 24 partition from "c" to "z"   
primary 4

**What is the difference between L1 and L2 cache?**

L1 (level 1) cache - L1 cache stores information for use by the processor. L1 cache is extremely quick but also expensive. Most processors have an L1 cache divided into space for data and space for instructions.  
L2 (level 2) cache - L2 cache is the next step down from L1 cache. Most processors today have L2 cache, which increases cache performance. Most desktop processors have an L2 Cache of about 256KB, but some high-end processors can have as much as 2MB.

[What is BIOS?](http://www.coolinterview.com/interview/19248/)

BIOS stands for Basic Input/output System, although the full term is used very infrequently. The system BIOS is the lowest-level software in the computer; it acts as an interface between the hardware and the [operating system](http://www.pcguide.com/ref/mbsys/bios/index-c.html).

**What is TCP/IP?**

TCP/IP (Transmission Control Protocol/Internet Protocol) is the basic communication language or protocol of the Internet. It can also be used as a communications protocol in a private network.

**What is Intranet?**

An Intranet is a private network that is contained within an enterprise. It may consists of many interlinked LAN .The main purpose of an intranet is to share company information & computing resources among employees. An intranet can also be used to facilitate working in groups and for teleconferences.

Difference between TCP and UDP

TCP is a Transmission Control Protocol.

UDP is a User Datagram Protocol.

TCP offers error connection and Guaranteed Delivery

UDP doesn’t offer error connection & delivery

TCP Provides or sends larger packets

UDP Provides or sends smaller packets.

TCP is Slower than UDP

UDP is Faster than TCP

**What is Load balancing?**

Distributing processing and communications activity evenly across a computer network so that no single device is overwhelmed. Load balancing is especially important for networks where it's difficult to predict the number of requests that will be issued to a server.

What are called Fat clients and Fat servers?

If the bulk of the application runs on the Client side, then it is Fat clients. It is used for decision support and personal software.

If the bulk of the application runs on the Server side, then it is Fat servers. It tries to minimize network interchanges by creating more abstract levels of services.

**What is Client/Server?**

Client-server computing or networking is a distributed application architecture that partitions tasks or workloads between service providers (servers) and service requesters, called clients

**What is an email client? What is difference between email client and web mail?**

In most cases, your email account exists on a central server, and not on your personal computer or workstation. An email client is software that allows you to read and send email through your account by connecting to this server. Email clients generally provide a simple interface through which you can access your email account.

Both web mail and email clients use the internet to read and send mail

With web mail, you read or send email through your browser and the web mail interface.

Some examples of web mail are:

Yahoo! Mail

Gmail

Hotmail

**An email client is a piece of software on your computer that you use to read and send emails from your computer. The advantage of using an email client is that the emails are stored on your computer and are accessible faster than using a web based email interface.**

There are various email client programs available. Some of the more common email clients are:

Outlook Express – This comes with Windows for free.

Outlook – part of the Microsoft Office collection of programs

Thunderbird – comes with the Firefox browser

**What are the differences among router, switch, bridge and hub?**

### Hub

### A common connection point for devices in a network. Hubs are commonly used to connect segments of a LAN. A hub contains multiple ports. When a packet arrives at one port, it is copied to the other ports so that all segments of the LAN can see all packets.

### Switch

In networks, a device that filters and forwards packets between LAN segments. Switches operate at the data link layer (layer 2) and sometimes the network layer (layer 3) of the OSI Reference Model .

### Router

A device that forwards data packets along networks. A router is connected to at least two networks, commonly two LANs or WANs or a LAN and its ISP.s network.

**What is IPsec?**

Short for **IP Sec**urity, a set of protocols developed by the IETF to support secure exchange of packets at the IP layer. IPsec has been deployed widely to implement VPNs.

**What is the port number of Telnet ,DNS, ftp(data) and ftp?**

Telnet = 23 and DNS = 53 ,pop3-110,smtp -25

ftp(data) = 20 and ftp=21

**Differentiate between forward lookup and reverse lookup in DNS?**

Forward lookup convert:Host name to IP address.  
Reverse lookup convert:IP address to Host name

**Which layer of OSI is responsible for end-to-end communication?**

End-to-end communication refer to process to process delivery which is done by TRANSPORT LAYER

**What is a wide area network?**

A wide area network (WAN) is a data network, usually used for connecting computers, that spans a wide geographical area. WANs can be used to connect cities, states, or even countries. WANs are often used by larger corporations or organizations to facilitate the exchange of data

The best example of the WAN is the internet.

**What is a metropolitan area network?**

**Metropolitan area network (MAN)** A network intermediate between a local area network (LAN) and a wide area network (WAN);

A network spanning a physical area larger than a LAN but smaller than a WAN, such as a city.

A MAN is typically owned and operated by a single entity such as a government body or large corporation.

# What is the difference between "dial-up connecion" and "broadband connection"?

The main difference is speed. Dial up has only 56 KBPS speed and broad band has faster speed like 256 MBPS to 2 MBPS

**What is local area network?**

A local area network (LAN) is a computer network that connects computers and devices in a limited geographical area such as home, school, computer laboratory or office building.

**What is PING utility?**

PING: Packet Internet Gropper. It's a diagnostic utility, which diagnose connectivity between computers. It use ICMP: Internet Control Messaging protocol to send echo requests ( usually 4 packets) and receive echo replies (4 packets)

**What is NETBIOS and NETBEUI?**

NetBIOS (Network Basic Input/output System) is a program that allows applications on different computers to communicate within a local area network (LAN). Microsoft Windows uses NetBIOS on Ethernet or Token Ring networks.

NetBEUI (NetBIOS Extended User Interface) is a new, extended version of NetBIOS, the program that lets computers communicates within a local area network. NetBEUI is a fast and efficient protocol that consumes few network resources, provides excellent error correction, and requires little configuration.

**What are the different types of networking / internetworking devices?**

Modems, repeater, routers, HUB's, switches, and wireless adapters.

**What is RAID?**

RAID stands for Redundant Array of Independent Disks and it basically involves combining two or more drives together to improve the performance and the fault tolerance

There are number of different RAID levels:

Level 0 -- Striped Disk Array without Fault Tolerance: Provides *data striping*

Level 1 -- Mirroring and Duplexing: Provides disk mirroring.

Level 2 -- Error-Correcting Coding:

Level 3 -- Bit-Interleaved Parity: Provides byte-level striping with a dedicated parity disk.

Level 4 -- Dedicated Parity Drive: provides block-level striping (like Level 0) with a parity disk.

Level 5 -- Block Interleaved Distributed Parity: Provides data striping at the byte level and also stripe error correction information.

Level 6 -- Independent Data Disks with Double Parity: Provides block-level striping with parity data distributed across all disks.

Level 0+1 -- A Mirror of Stripes:

Level 10 -- A Stripe of Mirrors:

Level 7: A trademark of Storage Computer Corporation that adds caching to Levels 3 or 4.

RAID S: (also called Parity RAID) EMC Corporation's proprietary striped parity RAID system used in its Symmetrix storage systems.

meters.

**What is the difference between physical address and logical address?**

Physical Address: It’s called as MAC Address  
Logical Address: It’s Called as IP Address

**What is the difference between tree and forest?**

Multiple domain models create logical structures called trees, when they share contiguous DNS names. For example, contoso.com, us.contoso.com, and europe.contoso.com share contiguous DNS namespaces and would together be considered a tree. An Active Directory that consists of multiple trees is naturally called a forest.

**What is the Network Time Protocol?**

Network Time Protocol (NTP) is a protocol that is used to synchronize computer clock times in a network of computers.

**What is ICMP?**

 ICMP (Internet Control Message Protocol) is a message control and error-reporting protocol between a host server and a gateway to the Internet.

**What is SLIP (Serial Line Interface Protocol)?**

It is a very simple protocol used for transmission of IP datagrams across a serial line.

**What is DHCP, DNS, POP3?**

Dynamic Host Configuration Protocol (DHCP) is a client/server protocol that automatically provides an Internet Protocol (IP) host with its IP address and other related configuration information such as the subnet mask and default gateway

Domain Name System (DNS) is an **Internet Engineering Task Force** (IETF) standard name service that allows your computer to register and resolve domain names, an Internet service that translates domain names into IP addresses

POP3 (Post Office Protocol 3) is the most recent version of a standard protocol for receiving e-mail. POP3 is a client/server protocol in which e-mail is received and held for you by your Internet server.

**Name** three network **tools used to determine** network connectivity

PING   
TRACEROUTE  
PATHPING

**What is multicast** routing**?**

Multicast routing is done by sending one packet to several destinations

**What is the default subnet mask for an ipv6 address?**

255.255.255.255.255.0

What is the range **of addresses in the classes of internet addresses?**

|  |  |  |
| --- | --- | --- |
| **Class A** | **1.0.0.1 to 126.255.255.254** | **Supports 16 million hosts on each of 127 networks.** |
| **Class B** | **128.1.0.1 to 191.255.255.254** | **Supports 65,000 hosts on each of 16,000 networks.** |
| **Class C** | **192.0.1.1 to 223.255.254.254** | **Supports 254 hosts on each of 2 million networks.** |
| **Class D** | **224.0.0.0 to 239.255.255.255** | **Reserved for multicast groups.** |
| **Class E** | **240.0.0.0 to 254.255.255.254** | **Reserved for future use, or Research and Development Purposes.** |

**Ranges 127.x.x.x are reserved for loopback or** localhost,

A 1-126 N.H.H.H

B 128-191 N.N.H.H

C 192-223 N.N.N.H

D 224-239 Not applicable

N=Network H=Host

Note 1: 127.0.0.0 is a class A network, but is reserved for use as a loopback address

(typically 127.0.0.1).

Note 2: The 0.0.0.0 network is reserved for use as the default route.

Note 3: Class D addresses are used by groups of hosts or routers that share a common characteristic: e.g. all OSPF devices respond to packets sent to address 224.0.0.2

Note 4: Class E addresses exist (240-248), but are reserved for future use

**What is OSPF?**

OSPF stands for Open Shortest Path first and it is a link state routing protocol and it is used to find the best possible shortest path to the router in a network

**What are the possible ways of data exchange?**

Simplex Half-duplex Full-duplex.

**What is point-to-point protocol?**

In networking, the Point-to-Point Protocol, or PPP, is a data link protocol commonly used in establishing a direct connection between two networking nodes.

**What does CIDR stand for?**

Classless Inter-Domain Routing (CIDR) is a methodology of allocating IP addresses and routing Internet Protocol packets

**What is a Management** Information **Base (MIB)**

**M**anagement **I**nformation **B**ase, a database of objects that can be monitored by a network management system. Both SNMP and RMON use standardized MIB formats that allow any SNMP and RMON tools to monitor any device defined by a MIB.

**What is .ost file?**

An OST file (.ost) is an offline folder file in Microsoft Outlook. Offline folders make it possible for the user to work offline and then to synchronize changes with the Exchange server the next time they connect.

**What is the difference between POP3 and IMAP Mail Server?**

There are two different protocols available to access e-mail: POP3 and IMAP. POP3 is useful when e-mail is checked from only one computer. IMAP is the better choice when you would like to check your mail from multiple computers.

When using POP3, your mail is stored on your PC.

When using IMAP, the mail is stored on the mail server.

POP3

You only check e-mail from one computer.

You want to remove your e-mail from the mail server.

Set to remove mail from server after 30 days.

Don’t check more frequently than every 15 minutes.

75 MB is the maximum for POP3 users.

IMAP

Do NOT check all folders for new messages! This slows your e-mail substantially.

Use “mail/” (without the quotes) as your IMAP folder directory.

You can set your client to download the mail and to remove the mail from the server, like a POP3 client.

Organize your mail into folders, and archive your older messages. This speeds e-mail retrieval by minimizing the number of messages in the inbox.

**Someone asked me what Microsoft subjects i want to learn? And i said that I want to learn Windows and Exchange. So could u tell me what related subjects in windows? And what related subjects in Exchange?**

In Windows and Exchange Server are both Microsoft Products .The related Subjects for Windows and Exchange are as below:

Windows Related Subjects are ,OS Installation,ADS,RAS,DNS,DHCP,HomeDirectory,Profile Management,Technical Issues,Services,System files,OS Performance issues,Backup,Repair of OS (Windows),Registry Settings and Network between Windows Systems and etc.

Exchange related subjects are Exchange Installation,Exchange BackUp,Outlook Configuration,Exchange Server and Client installtion,Creation of Users,Creation of Profiles,POP3 Service ,SMTP Service

**What is the difference between MCP, MCSA and MCSE a brief description?**

If u Pass 1 paper of Microsoft than Microsoft awards u with MCP (Microsoft Certified Professional) Certificate. similarly if u Pass 4 papers than u become MCSA (Microsoft Certified Systems Administrator) & after Passing 7 Papers u become MCSE (Microsoft Certified Systems Engineer)

**In 2 domain controllers, One has some 3 roles other has 2 roles, Domain controller which has 3 roles went down, will the users can able to login who are created in that domain controller?**

Yes, by default that users can able to login as this record is repliacted to another DCs.

Since pdc emulator role is handling the Password and lockout policies, if the account is locked out, that user may not be able to login if the down DC handling this role.

**If Account lockout or password reset has been done, what is the replication time between domain controllers?**

Immediately

**What is software?**

Computer software, or just software, is a collection of computer programs and related data that provide the instructions telling a computer what to do and how to do it. In other words software is a set of programs, procedures, algorithms and its documentation

**What are application partitions? When do I use them?**

An application directory partition is a directory partition that is replicated only to specific domain controllers. A domain controller that participates in the replication of a particular application directory partition hosts a replica of that partition. Only domain controllers running Windows Server 2003 can host a replica of an application directory partition.

**I have dell laptop, where i have install window vista, and later i have install window 7, but now when i am starting it it's not giving the option which window i want to use, automatically its starting with window 7,also in window 7 it's not accepting any drive-i am unable to transfer data through Bluetooth or card reader, please help in to resolve this problem?**

You have to install all compatible software drivers for Bluetooth and card reader for win 7

**How to backup/restore Group Policy objects....?**

For backup: Expand group policy object and right click on group which you want backup and click on export and provide location.

For restore: expand group policy object and right click on group policy, click import (which you want restore from backup) click restore, provide source location.

**What is the difference between NTFS & FAT File Systems?**  
Operting System  
FAT32: 98/NT/2K/XP FAT16: DOS & All Versions of Windows

NTFS: NT/2K/XP  
Limitations  
Max Volume Size&Max File Size  
FAT32: 2TB FAT16: 2GB  
FAT32: 4GB FAT16: 2GB

NTFS: 2TB

Compression  
FAT32 & FAT16: No NTFS: Yes  
Encryption  
NTFS: Yes FAT32, FAT16: No   
Disk Quotas  
NTFS: Yes FAT32, FAT16: No   
Built-In Security  
NTFS: Yes FAT32 & FAT16: No   
Performance  
NTFS: Low on small volumes, High on Large FAT32 & FAT16: High on small volumes, Low on large   
Fault Tolerance  
NTFS: Max FAT32: Minimal FAT16: Average

**How to troubleshoot the Replication Issue with the Active Directory? Explain**

Use below 3 tools

1. Repadmin.exe 2. Remplmon 3. Active directory sites and service

**What is difference between Server 2003 vs. 2008?**

1)2008 is combination of vista and windows 2003r2. Some new services are introduced in it  
1. RODC [Read-only Domain controllers.] new domain controller introduced in it  
2. WDS (windows deployment services) instead of RIS in 2003 server  
3. shadow copy for each and every folders  
4.boot sequence is changed  
5.installation is 32 bit where as in 2003 it is 16 as well as 32 bit,   
6.services are known as role in it  
7. Group policy editor is a separate option in ads  
2) The main difference between 2003 and 2008 is Virtualization, management.   
2008 has more inbuilt components and updated third party drivers. Windows Server 2008 introduces Hyper-V (V for Virtualization) but only on 64bit versions.  
3) In Windows Server 2008, Microsoft is introducing new features and technologies, some of which were not available in Windows Server 2003 with Service Pack 1 (SP1), that will help to reduce the power consumption of server and client operating systems and increase server efficiency. It includes updated support for Advanced Configuration and Power Interface (ACPI) processor power management (PPM) features, including support for processor performance states (P-states) and processor idle sleep states on multiprocessor systems.

**Write Hierarchy of ADS**

Hierarchy of ADS

----------------

Forest

|

Tree

|

Domain

|

Organizational Unit[OU]

|

Group

|

User

**Your .pst file got corrupted, your manager wants to check his mails, but it's not getting open, what will you do ?how u will solve this problem**

Run the scanpst to solve this issue from the following location

C:\program files\Common Files\System\MSMAPI\1033\SCANPST.EXE

Select the path of the PST, and scan it.

If the PST file is in shared drive, check the authentication for the user. (Permission -from the Security settings), if permission is denied to user, give the permission to parent folder and child folders

**What is the ways to infect the system by virus?**

1. PEN DRIVES AND INTERNET 2.installing 3rd party software’s 3. Crack, patch, keygen

4. Connecting in a LAN where other computer's in that network may contain viruses.

**What happens if a Schema or Domain naming master goes down, would there be any impact on the end user authentication?**

Actually, Schema master and domain naming master are on forest level and Schema master is responsible for schema modification. So if a user going to login and user doesn’t modify the schema. finally No impact from schema master.

Domain naming master responsible for adding for removing/modify any domain in the forest. So again No impact. Finally if my both server are down so there is no impact of user login.

**If RID master is down, can domain user login in domain?**

A server that has RID (Relative Identifiers) master role only generates the unique IDs to the newly created objects. Hence if your RID master is down; no new objects could be created however the existing users would keep on getting authenticated as authentication is done via Kerberos v5 in server 2003 that does not include RIS master server.

**What is in DNS?**

DNS stand for Domain name system it is name resolution service which resolve the human friendlily name such as WWW.Microsoft.com into IP address.

**What is the DHCP role?**

DHCP (Dynamic Host Configuration Protocol) automatically assign IP address to the client machines which are connected to the network. It also configures other network settings like subnet mask, Default getway and DNS. It reduces the administrative work.

**Can I edit Schema....?**

Yes, for editing the schema the user must be member of Schema Admin Group.

**There are 50 systems, all systems are joined in domain controller, in that one of the pc got disconnected from the domain suddenly, how can u solve the problem, what are the steps do you follow to overcome?**

(1) check logical problems like TCP/IP whether it is configured properly or not.

(2) check physical problems like cable, rj45 whether it is inserted properly or not.

(3) Check ICMP in firewall

# What are the differences between Windows 2000 Server and Windows Server 2003?

Windows Server 2003 was released as an upgrade to Windows 2000 Server.

windows 2003 server support remote desktop feature but in 2000 remote desktop feature was not supported.   
Window 2003 server includes IIS server in it.

you can change the domain name at any time with help of ntdsutil command, without rebuilding the domain that is not possible in 2000.   
1: Windows 2000 server give only 90 days trial version of Terminal server. but windows server 2003 give 120 days’ trial version.   
2: Windows server 2003 shared folder at a time only 65767 user access.   
1) In Win 2000 server we can apply 620 group policies but in 2003 we can apply nearly 720 so Win2003 server is more secure than win 2000 server.   
2) In 2000 we cannot rename domain whereas in 2003 we can rename Domain.   
3) In 2000 it supports of 8 processors and 64 GB RAM (In 2000 Advance Server) whereas in 2003 supports up to 64 processors and max of 512GB RAM.   
4) 2000 Supports IIS 5.0 and 2003 Supports IIS6.0   
5) 2000 doesn't support Dot net whereas 2003 Supports Microsoft .NET 2.0   
6) 2000 has Server and Advance Server editions whereas 2003 has Standard, Enterprise, Datacenter and Web server Editions.   
7) 2000 doesn't have any 64 bit server operating system whereas 2003 has 64 bit server operating systems (Windows Server 2003 X64 Std and Enterprise Edition)   
8) 2000 has basic concept of DFS (Distributed File systems) with defined roots whereas 2003 has Enhanced DFS support with multiple roots.   
9) In 2000 we can create 1 million users and in 2003 we can create 1 billion users.   
10) In 2000,there is no shadow copy whereas 2003 shadow copy is there.   
11)In 2000,we can't rename domain name whereas we can change it. In 2003

**What is the difference between ddr1 and ddr2 and ddr3?**

## DDR

DDR stands for Double Data Rate. It can transfer data twice per clock cycle. It does this by using the rising and falling edges of the clock signal, also known as "double pumping" and employing a prefetch buffer capable of accessing two datawords at a time.

## DDR2

DDR2 also utilizes the same double pumping technique as DDR. It achieves performance gains by using a prefetch buffer that retrieves four datawords per memory access. This allows it to transfer data four times per clock cycle (compared to twice in the case of DDR).

## DDR3

Like all other forms of DDR, DDR3 transfers data twice per clock cycle. However, its prefetch buffer can access eight datawords at a time. It can transfer data eight times per clock cycle.

**What are the different technical steps to install windows xp and windows 2000 professional?**

1- Bootable CD.

2- Unattended installation before you has to create an answer file & save it to a floppy disk.

3- If you have RIS server you can Boot from network & install.

**What is the impact if DNS Server fails?**

If you DNS server fails, Active Directory stops working & server stops responding. You can't resolve host names.

**What is Proxy server?**

A proxy server is computer that functions as an intermediary between a web browser (such as Internet Explorer) and the Internet. Proxy servers help improve web performance by storing a copy of frequently used WebPages. When a browser requests a webpage stored in the proxy server's collection (its cache), it is provided by the proxy server, which is faster than going to the web. Proxy servers also help improve security by filtering out some web content and malicious software.

Proxy servers are used mostly by networks in organizations and companies. Typically, people connecting to the Internet from home will not use a proxy server.

**DHCP Process and which Protocol DHCP uses**

Dynamic Host Configuration Protocol (DHCP) is a standard protocol defined by RFC 1541 (which is superseded by RFC 2131) that allows a server to dynamically distribute IP addressing and configuration information to clients.

DHCP Process fall into four basic phases:

DHCPDISCOVER

DHCPOFFER

DHCPREQUEST

DHCPACK

Protocol and Port

DHCP uses the same two ports assigned by IANA for BOOTP:

67/UDP for sending data to the server, and 68/UDP for data to the client.

**What is the full form of xp**

it stands for Experience.

**What is the advantages of using Windows XP?**

The user interface for IPSecurity (IPSec)

• SNMP

• Simple TCP/IP services

• SAP Agent

• Client Service for NetWare

• Network Monitor

• Multiple Roaming feature

**Why the kernel panic error was occurring?**

A kernel panic is an action taken by an operating system upon detecting an internal fatal error from which it cannot safely recover. Attempts by the operating system to read an invalid or non-permitted memory address are a common source of kernel panics. A panic may also occur as a result of a hardware failure or a bug in the operating system.

# Different types of backups

This article explains different types of backup available in windows (ntbackup.exe). The Backup utility supports five methods of backing up data on your computer or network.

Copy backup

A copy backup copies all selected files but does not mark each file as having been backed up

Daily backup

A daily backup copies all selected files that have been modified the day the daily backup is performed. The backed-up files are not marked as having been backed up

Differential backup

A differential backup copies files created or changed since the last normal or incremental backup. It does not mark files as having been backed up

Incremental backup

An incremental backup backs up only those files created or changed since the last normal or incremental backup. It marks files as having been backed up

Normal backup

A normal backup copies all selected files and marks each file as having been backed up

Strategy : Normal + Incremental

Backing up your data using a combination of normal backups and incremental backups requires the least amount of storage space and is the quickest backup method.

Strategy : Normal + Differential

Backing up your data using a combination of normal backups and differential backups is more time-consuming, especially if your data changes frequently, but it is easier to restore

the data because the backup set is usually stored on only a few disks or tapes.

**do?**

If ntldr is missing , to fix it , insert the Windows XP bootable CD into your CD-drive and

reboot your computer. When your computer prompted a message to press any key to boot from the CD, press the any key. Once in the Windows XP setup menu press the "R" key to repair and now log into your Windows installation by pressing the "1" key then pressing enter. Here Enter the administrator password and then copy the below two files to the root directory

copy e:\i386\ntldr c:\ copy e:\i386\ntdetect.com c:\

Once copy both files, remove the CD and reboot your system.

**How to change the windows xp product key if wrongly installed with other product key but you have original product key? What you will do to Make your os as Genuine?**

Go to run and type %systemroot%\System32\oobe\msoobe.exe \a

change your product key here

**What are the steps taken while moving the FSMO roles?**

Windows 2000/2003 Active Directory domains utilize a Single Operation Master method called FSMO (Flexible Single Master Operation)

You can transfer FSMO roles by using the Ntdsutil.exe command-line utility or by using an MMC snap-in tool. Depending on the FSMO role that you want to transfer, you can use one of the following three MMC snap-in tools:

* Active Directory Schema snap-in
* Active Directory Domains and Trusts snap-in
* Active Directory Users and Computers snap-in
* To transfer the FSMO role the administrator must be a member of the following group:

|  |  |
| --- | --- |
| FSMO Role | Administrator must be a member of |
| Schema | Schema Admins |
| Domain Naming | Enterprise Admins |
| RID | Domain Admins |
| PDC Emulator |
| Infrastructure |

To Transfer the Domain-Specific RID Master, PDC Emulator, and Infrastructure Master FSMO Roles:

1. Open the Active Directory Users and Computers snap-in from the Administrative Tools folder.
2. If you are NOT logged onto the target domain controller, in the snap-in, right-click the icon next to Active Directory Users and Computers and press Connect to Domain Controller.
3. Select the domain controller that will be the new role holder, the target, and press OK.
4. Right-click the Active Directory Users and Computers and press Operation Masters.
5. Select the appropriate tab for the role you wish to transfer and press the Change button.
6. Press OK to confirm the change.
7. Press OK all the way out.

To Transfer the Domain Naming Master Role:

1. Open the Active Directory Domains and Trusts snap-in from the Administrative Tools folder.
2. If you are NOT logged onto the target domain controller, in the snap-in, right-click the icon next to Active Directory Domains and Trusts and press Connect to Domain Controller.
3. Select the domain controller that will be the new role holder and press OK.
4. Right-click the Active Directory Domains and Trusts icon again and press Operation Masters.
5. Press the Change button.
6. Press OK to confirm the change.
7. Press OK all the way out.

#### Transferring the Schema Master Role

1. Click Start, click run, type mmc, and then click OK.
2. On the Console, menu click Add/Remove Snap-in.
3. Click Add.
4. Click Active Directory Schema.
5. Click Add.
6. Click Close to close the Add Standalone Snap-in dialog box.
7. Click OK to add the snap-in to the console.
8. Right-click the Active Directory Schema icon, and then click Change Domain Controller.
9. Click Specify Domain Controller, type the name of the domain controller that will be the new role holder, and then click OK.
10. Right-click Active Directory Schema, and then click Operation Masters.
11. In the Change Schema Master dialog box, click Change.
12. Click OK.
13. Click OK .
14. Click Cancel to close the dialog box.

To transfer the FSMO roles from the Ntdsutil command:

1. On any domain controller, click Start, click Run, type Ntdsutil in the Open box, and then click OK.
2. Type roles, and then press ENTER.
3. Type connections, and then press ENTER.
4. Type connect to server <servername>, where <servername> is the name of the server you want to use, and then press ENTER.
5. At the server connections: prompt, type q, and then press ENTER again.
6. Type transfer <role>. where <role> is the role you want to transfer.
7. You will receive a warning window asking if you want to perform the transfer. Click on Yes.
8. After you transfer the roles, type q and press ENTER until you quit Ntdsutil.exe.
   1. Restart the server and make sure you update your backup.

**What is active directory?**

Active Directory is a centralized and standardized system that automates network management of user data, security and distributed resources and enables interoperation with other directories. Active Directory is designed especially for distributed networking environments.

Windows Server 2003 Active Directory provides a single reference, called a directory service, to all the objects in a network, including users, groups, computers, printers, policies & permissions.

Active Directory provides a single hierarchical view from which to access and manage all of the network's resources.

**What is windows installer?**

The Windows Installer is a software component used for the installation, maintenance, and removal of software.

business models based around solving only one of these four areas.

**I forget the startup password on Windows XP how to remove?**

* Insert your Windows XP CD into your CD drive and boot your computer. If you receive the message "press any key to boot from CD," press any key.
* Press "Enter" to set up Windows. After you accept the license agreement, you will be asked if you want start a repair process.
* Press "R" to begin the repair process. Setup will now check your disks and start copying files, which can take several minutes. After this, reboot. Let the computer boot normally (do not press a key to boot from CD).
* Keep your eye on the lower left portion of the screen. When you see the Installing Devices progress bar, press "Shift" and "F10" at the same time. This will open a command line console.
* Type "NUSRMGR.CPL" (without quotes) at the prompt, then press "Enter." This will give you access to User Accounts. Remove or change your password. Write it down. After the repair is finished, you will be able to log on with your new password.

**Why .Dll file is missing ? whats the reason for missing ?**

A missing or corrupt .dll file can be caused by any of the below possibilities.

1. Another program was uninstalled that removed a .dll file that was required by another program or the operating system.
2. A program was installed that overwrote the .dll file with either an older version or a version that is incompatible with other programs causing .dll errors.
3. A bad installation of a program corrupted one or more files causing the .dll errors.
4. Another user or program maliciously or mistakenly deleted the .dll file or an associated file.
5. A hardware issue exists with the computer, such as a bad hard disk drive, causing the data on the drive to become corrupt, casing the .dll errors.

**What are the differnt file system in windows?**

Windows  supports the FAT16, FAT32, and NTFS file systems.

**If we open CD-ROM drive then the response is "please insert CD into drive" What is the problem? Is it with CD-ROM problem of some services problem? How can we solve this problem?**

If we open the CD ROM Drive and then the response is "Please insert the CD into the drive" than the result is that CD ROM drive is asking for the CD ROM we should put a CD ROM into the Drive. If it is asking for the CD ROM even after putting the CD ROM than the problem could be with the CD ROM Drive sensor because it is not sensing the CD ROM into the drive.

**Which of the following API is used to hide a window?**

a) Show Window

b) Enable Window

c) Move Window

d) Set Window Placement

E) None of the above ANS-Show window

**How many types of operating system?**

## Types of operating system

There are several types of operating system, defined according to whether they can simultaneously manage information measuring 16 bits, 32 bits, 64 bits or more.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **System** | **Programming** | **Single user** | **Multi-user** | **Single task** | **Multi-task** |
| DOS | 16 bits | X |  | X |  |
| Windows3.1 | 16/32 bits | X |  |  | not pre-emptive |
| Windows95/98/Me | 32 bits | X |  |  | cooperative |
| WindowsNT/2000 | 32 bits |  | X |  | pre-emptive |
| WindowsXP | 32/64 bits |  | X |  | pre-emptive |
| Unix / Linux | 32/64 bits |  | X |  | pre-emptive |
| MAC/OS X | 32 bits |  | X |  | pre-emptive |
| VMS | 32 bits |  | X |  | pre-emptive |

**How many Logical ports are available in OS?**

65,535

**Differentiate between RAM and ROM?**

ROM (Read Only Memory) and RAM (Random Access Memory) are both vital components to any fast and productive computer. However, contrary to what many believe, the two have almost nothing in common. Here are just a few of the differences between RAM and ROM.

## RAM is...

1. RAM is Random Access Memory. This is reusable memory that the computer uses to run programs.

## ROM is...

1. ROM is Read Only Memory. This is memory that has data permanently written on it and is usually not reusable.

## Types of RAM

1. DDR (Double Data Rate), DDR2 and SDRAM are all types of RAM.

## Types of ROM

1. PROM (Programmable Read-Only Memory) and CD-ROM are just two of the many types of ROM.

## Similarities

1. While RAM and ROM are quite different, they both have similarities. Both are types of memory and both are vital for your computer to operate properly.

**What are called Non-GUI clients, GUI Clients and OOUI Clients?**

Non-GUI Client: These are applications, generate server requests with a minimal amount of human interaction.

GUI Clients: These are applicatoins, where occassional requests to the server result from a human interacting with a GUI (Example: Windows 3.x, NT 3.5)

OOUI clients : These are applications, which are highly-iconic, object-oriented user interface that provides seamless access to information in very visual formats. (Example: MAC OS, Windows 95, NT 4.0)

**What are the five major technologies that can be used to create Client/Server applications?**

Database Servers

TP Monitors

Groupware

Distributed Objects

Intranets.

**What is meant by Horizontal scaling and Vertical scaling?**

Vertical Scaling means to add more hardware resources to the same machine, generally by adding more processors and memory.

* Expensive
* Easy to implement (generally, no change required in your application)
* Single point of failure (if main server crashes, what do you do?)

Horizontal Scaling means to add more machines into the mix, generally cheap commodity hardware

Cheap(er) - at least more linear expenditures

* Hard to implement (much harder than vertical)
* Many points of failure and therefore can usually handle failures elegantly

The devices found in datalink layer are

Router Bridge NIC Repeater Memory

NIC (network interface card)

**What is Networking?**

A computer network is any set of computers or devices connected to each other with the ability to exchange data.

# Why is it always TCP over IP?

Because the Transmission Control Protocol runs on the Internet Protocol

**How can i install active directory in windows 2008?**

Install Active Directory Domain Services (AD DS) on a member server that runs Windows Server 2008 or Windows Server 2008 R2 by using the Active Directory Domain Services Installation Wizard (Dcpromo.exe). The member server should be located in the forest root domain. After you install AD DS successfully, the member server will become a domain controller. You can install AD DS on any member server that meets the domain controller hardware requirements.

You can install AD DS using the Windows user interface (UI). The Windows UI provides two wizards that guide you through the installation process for AD DS. One wizard is the Add Roles Wizard, which you can access in Server Manager. The other wizard is the Active Directory Domain Services Installation Wizard (Dcpromo.exe), which you can access in either of the following ways:

* When you complete the steps in the Add Roles Wizard, click the link to start the Active Directory Domain Services Installation Wizard.
* Click **Start**, click **Run**, type **dcpromo.exe**, and then click **OK**.

#### To install AD DS on a member server by using the Windows interface

1. Click **Start**, and then click **Server Manager**.
2. In **Roles Summary**, click **Add Roles**.
3. If necessary, review the information on the **Before You Begin** page, and then click **Next**.
4. On the **Select Server Roles** page, select the **Active Directory Domain Services** check box, and then click **Next**.
5. If necessary, review the information on the **Active Directory Domain Services** page, and then click **Next**.
6. On the **Confirm Installation Selections** page, click **Install**.
7. On the **Installation Results** page, click **Close this wizard and launch the Active Directory Domain Services Installation Wizard (dcpromo.exe)**.
8. On the **Welcome to the Active Directory Domain Services Installation Wizard** page, click **Next**.

If you want to install from media, identify the source domain controller for AD DS replication, or specify the Password Replication Policy (PRP) for an RODC as part of the installation of the additional domain controller, click **Use advanced mode installation**.

1. On the **Operating System Compatibility** page, review the warning about the default security settings for Windows Server 2008 domain controllers, and then click **Next**.
2. On the **Choose a Deployment Configuration** page, click **Existing forest**, click **Add a domain controller to an existing domain**, and then click **Next**.
3. On the **Network Credentials** page, type the name of any existing domain in the forest where you plan to install the additional domain controller. Under **Specify the account credentials to use to perform the installation**, click **My current logged on credentials** or click **Alternate credentials**, and then click **Set**. In the **Windows Security** dialog box, provide the user name and password for an account that can install the additional domain controller. To install an additional domain controller, you must be a member of the Enterprise Admins group or the Domain Admins group. When you are finished providing credentials, click **Next**.
4. On the **Select a Domain** page, select the domain of the new domain controller, and then click **Next**.
5. On the **Select a Site** page, select a site from the list or select the option to install the domain controller in the site that corresponds to its IP address, and then click **Next**.
6. On the **Additional Domain Controller Options** page, make the following selections, and then click **Next**:

**DNS server**: This option is selected by default so that your domain controller can function as a DNS server. If you do not want the domain controller to be a DNS server, clear this option.

|  |
| --- |
|  |
|  |

**Global Catalog**: This option is selected by default. It adds the global catalog, read-only directory partitions to the domain controller, and it enables global catalog search functionality.

**Read-only domain controller**. This option is not selected by default. It makes the additional domain controller read only.

1. If you selected **Use advanced mode installation** on the **Welcome** page, the **Install from Media** page appears. You can provide the location of installation media to be used to create the domain controller and configure AD DS, or you can have all the replication done over the network. Note that some data will be replicated over the network even if you install from media. For information about using this method to install the domain controller, see Installing AD DS from Media.
2. If you selected **Use advanced mode installation** on the **Welcome** page, the **Source Domain Controller** page appears. Click **Let the wizard choose an appropriate domain controller** or click **Use this specific domain controller** to specify a domain controller that you want to provide as a source for replication to create the new domain controller, and then click **Next**. If you do not choose to install from media, all data will be replicated from this source domain controller.
3. On the **Location for Database, Log Files, and SYSVOL** page, type or browse to the volume and folder locations for the database file, the directory service log files, and the system volume (SYSVOL) files, and then click **Next**.

Windows Server Backup backs up the directory service by volume. For backup and recovery efficiency, store these files on separate volumes that do not contain applications or other nondirectory files.

1. On the **Directory Services Restore Mode Administrator Password** page, type and confirm the restore mode password, and then click **Next**. This password must be used to start AD DS in Directory Service Restore Mode (DSRM) for tasks that must be performed offline.
2. On the **Summary** page, review your selections. Click **Back** to change any selections, if necessary.

To save the settings that you have selected to an answer file that you can use to automate subsequent Active Directory operations, click **Export settings**. Type the name for your answer file, and then click **Save**.

When you are sure that your selections are accurate, click **Next** to install AD DS.

1. On the **Completing the Active Directory Domain Services Installation Wizard** page, click **Finish**.
2. You can either select the **Reboot on completion** check box to have the server restart automatically or you can restart the server to complete the AD DS installation when you are prompted to do so.

**What is difference safe mode normal mode?**

Safe mode is a troubleshooting option for Windows that starts your computer in a limited state. Only the basic files and drivers necessary to run Windows are started.

In normal mode all basic files and drivers are necessary to run windows.

Think about ur college network if three departments where there and and 25 computers in each department and if someone ask u to group the computer s,what will be ccriteria to do that.

with the help of subnetting

**What is Firewall and types of firewall?**

A firewall is a part of a computer system or network that is designed to block unauthorized access while permitting authorized communications. It is a device or set of devices that is configured to permit or deny network transmissions based upon a set of rules and other criteria.

There are several types of firewall techniques:

1. Packet filter: Packet filtering inspects each packet passing through the network and accepts or rejects it based on user-defined rules. Although difficult to configure, it is fairly effective and mostly transparent to its users. It is susceptible to IP spoofing.
2. Application gateway: Applies security mechanisms to specific applications, such as FTP and Telnet servers. This is very effective, but can impose a performance degradation.
3. Circuit-level gateway: Applies security mechanisms when a TCP or UDP connection is established. Once the connection has been made, packets can flow between the hosts without further checking.
4. Proxy server: Intercepts all messages entering and leaving the network. The proxy server effectively hides the true network addresses.

**What is troubleshooting?**

To isolate the source of a problem and fix it.

**What is shadow copy?**

Shadow Copy (Volume Snapshot Service / Volume Shadow Copy Service / VSS), is a technology included in Microsoft Windows that allows taking manual or automatic backup copies or snapshots of data. It is implemented as a Windows service called the *Volume Shadow Copy* service.

**How do you check whether Active Directory has been installed properly or not?**

By checking SRV Records In DNS Server.

check active directory users and computers

active directory domain and trust

active directory site and services

database folder

sysvol folder

log file

**What is Web Server, Application Server,Database Server?**

A web server can be referred to as either the hardware (the computer) or the software (the computer application) that helps to deliver content that can be accessed through the Internet. A web server is what makes it possible to be able to access content like web pages or other data from anywhere as long as it is connected to the internet.

Application server is a program that handles all application operations between users and an organization's backend business applications or databases.

An application server is typically used for complex transaction-based applications.

A database server is a computer program that provides database services to other computer programs or computers, as defined by the client–server model.

Such a server is accessed either through a "front end" running on the user’s computer which displays requested data or the "back end" which runs on the server and handles tasks such as data analysis and storage.

**In case DHCP fails in your server then how do you satisfy that problem within some minutes?**

You can "Enable NetBIOS over TCP/IP" this will solve the problem within some minutes following the below path:

My Network Places------right click properties-------select Internet Protocol------Advanced settings-----Wins-----Enable NetBIOS over TCP/IP and save changes and check for the same.

**What is the Protocol?**

**How is it different than BOOTP or RARP?**

DHCP is based on BOOTP and maintains some backward compatibility. The main difference is that BOOTP was designed for manual pre-configuration of the host information in a server database, while DHCP allows for dynamic allocation of network addresses and configurations to newly attached hosts. Additionally, DHCP allows for recovery and reallocation of network addresses through a leasing mechanism.

RARP is a protocol used by Sun and other vendors that allows a computer to find out its own IP number, which is one of the protocol parameters typically passed to the client system by DHCP or BOOTP. RARP doesn't support other parameters and using it, a server can only serve a single LAN. DHCP and BOOTP are designed so they can be routed.

.

**What is Wi-Fi? What is the latest version?**

The name of a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections. The Wi-Fi Alliance, the organization that owns the Wi-Fi (registered trademark) term specifically defines Wi-Fi (Wireless Fidelity)as any "wireless local area network (WLAN) products that are based on the Institute of Electrical and Electronics Engineers' (IEEE) 802.11 standards."

**What is mean topology and types of topology?**

Networktopology refers to the way that your computer network is arranged. The network can have a physical or a logical topology. The physical topology describes the layout of computers and where the workstations are positioned. The logical networktopology describes how the information flows through the network.

The different kinds of topology are:

* Bus topology
* Star topology
* Ring topology
* Tree topology
* Mesh topology

## Bus topology

In bus topology, all computers are linked to the same transmission line by using a cable, usually coaxial. The word "bus" refers to the physical line that joins all the machines on the network.

The advantages of this topology are that it is easy to implement and functions easily; on the other hand, it is highly vulnerable, since if one of the connections is defective, the whole network is affected.

## Star topology

In star topology, the network computers are linked to a piece of hardware called a hub. Unlike networks built with bus topology, networks which use star topology are much less vulnerable, as one of the connections can easily be removed by disconnecting it from the hub, without paralyzing the rest of the network. However, a star topology network is bulkier than a bus network, as additional hardware is required (the hub).

**Ring topology**

A ring topology is a network topology where each node (device on the network) connects to two other nodes. This forms a continuous path for the signal through each device.

This works because data travels from node to node (device to device). In a ring topology (also called a ring network), each node handles the data packets itself, then passes it to the next node, which also handles the packets.

**Mesh topology**

A mesh topology is made up of a network where each device has a point-to-point connection to every other device on the network. This provides the dedicated capacity of a point-to-point link to each device and significant fault tolerance.

**Tree topology**

The Tree Topology is a combination of the bus and the Star Topology. The tree like structure allows you to have many servers on the network and you can branch out the network in many ways. This is particularly helpful for colleges, universities and schools so that each of the branches can identify the relevant systems in their own network and yet connect to the big network in some way.

**What is a wild card certificate?**

A wildcard certificate allows you to secure multiple web sites with a single SSL certificate. Wildcard certificates are a service provided under Certificate Management Service.

**How many scopes con create in one dhcp?**

You can configure as many scopes on a DHCP server as is required in your network environment.

**What is VPN and what are the main advantages?**

A virtual private network (VPN) is the extension of a private network that encompasses links across shared or public networks like the Internet. With a VPN, you can send data between two computers or two networks across a shared or public network in a manner that emulates a point-to-point private link. Virtual private networking is the act of creating and configuring a VPN.

* Reduce cost implementation (We don’t need to use lease line/ ISDN/ FR, mobile only

need to dial local ISP to connect to branch office)

* Security (VPN provide strong security mechanism through encryption, authentication)
* More Flexible
* Simple Management
* Tunnel topology
* Interoperability of devices from multiple vendors
* Centralized VPN management
* Easy implementation
* Easy usability
* Scalability
* Performance
* Bandwidth management
* High availability
* Protect traffic across internet
* Protect data through hackers

**What is dhcp? what is the uses and advantages?**

Dynamic Host Configuration Protocol (DHCP) is a standard protocol that allows a server to dynamically distribute IP addressing & configuration information to clients.

## Benefits of DHCP

In Windows Server 2003, the DHCP Server service provides the following benefits:

* **Reliable IP address configuration.**
* DHCP minimizes configuration errors caused by manual IP address configuration, such as typographical errors, or address conflicts caused by the assignment of an IP address to more than one computer at the same time.
* **Reduced network administration.** DHCP includes the following features to reduce network administration:
* Centralized and automated TCP/IP configuration.
* The ability to define TCP/IP configurations from a central location.
* The ability to assign a full range of additional TCP/IP configuration values by means of DHCP options.
* The forwarding of initial DHCP messages by using a DHCP relay agent, thus eliminating the need to have a DHCP server on every subnet.

**What is secured socket layer and what is the requirement of its in networking?**

SSL (Secure Sockets Layer) is the standard security technology for establishing an encrypted link between a web server and a browser. This link ensures that all data passed between the web server and browsers remain private and integral.

**What is the difference between HTTP and HTTPS where u can use HTTPS?**

Http is hyper text transfer protocol which is responsible for transmitting and receiving information across the Internet where as https is secure http, which is used exchanging confidential information with a server, which needs to be secured in order to prevent unauthorized access. HTTP is Hyper Text Transport Protocol and normally use when you are browsing the web, it's not secure.

Hypertext Transfer Protocol Secure (HTTPS) is a combination of the Hypertext Transfer Protocol with the SSL/TLS protocol to provide encrypted communication and secure identification of a network web server. HTTPS is a Web protocol developed by Netscape and built into its browser that encrypts and decrypts user page requests as well as the pages that are returned by the Web server.

**What is Peer to peer Network?**

Peer to peer is an approach to computer networking where all computers share equivalent responsibility for processing data. Peer-to-peer networking (also known simply as *peer networking*) differs from client-server networking, where certain devices have responsibility for providing or "serving" data and other devices consume or otherwise act as "clients" of those servers.

**What is the difference between a Virtual Server and a Dedicated Server?**

A dedicated server is a type of Internet hosting in which the client leases an entire server not shared with anyone. This is more flexible than shared hosting, as organizations have full control over the server(s), including choice of operating system, hardware, etc. A dedicated server could also be a computer that manages printer resources. However, that not all servers are dedicated. In some networks, it is possible for a computer to act as a server and perform other functions as well. In the Web hosting business, a dedicated server is typically a rented service. The user rents the server, software and an Internet connection from the Web host.

A server, usually a Web server, that shares computer resources with other virtual servers. Virtual Web servers are a very popular way of providing low-cost web hosting services. Instead of requiring a separate computer for each server, dozens of virtual servers can co-reside on the same computer. In most cases, performance is not affected and each web site behaves as if it is being served by a dedicated server. If too many virtual servers reside on the same computer, or if one virtual server starts hogging resources, Web pages will be delivered more slowly.

**What is Antivirus?**

Antivirus software is a computer program that detects, prevents, and takes action to disarm or remove malicious software programs, such as viruses and worms.

**What are Cold Boot and Warm Boot?**

A hard reboot (also known as a cold reboot, cold boot or cold start) is when power to a computer is abruptly turned off, then turned back on.

A soft reboot (also known as a warm reboot) is restarting a computer under software control, without removing power or (directly) triggering a reset line.

**What is the type of dsl technologies?**

Digital Subscriber Line (DSL) is high-speed Internet access that uses existing copper telephone lines. According to the FCC, the different types of DSL technologies provide transmission speeds ranging from several hundred thousand bits per second to millions of bits per second.

All types of DSL Internet service can be categorized as either asymmetric or symmetric.

## ADSL

Asymmetric Digital Subscriber Line (ADSL) is the most widely available type of DSL technology and typically used by homes and small businesses. Asymmetric means that most of the bandwidth is for sending data to the user (downloading) and only a small amount is available for uploading data. ADSL requires a splitter at the user's end to split the Internet data signal from the telephone signal.  
DSL Lite (also known as G.Lite) is a slower version of ADSL that doesn't require a splitter at the user's end because the splitting happens remotely at the telephone company.   
Rate-Adaptive DSL (RADSL) is an ADSL technology that uses software to determine the rate that a customer phone line can transmit signals and adjusts the delivery rate for that phone line.

## SDSL

Symmetrical DSL (SDSL) means that data downloads and uploads at the same speed. Larger businesses often use SDSL. Two types of SDSL are high-data-rate Digital Subscriber Line (HDSL) and very-high-data-rate Digital Subscriber Line (VDSL).   
A newer version of HDSL is HDSL2, which transmits data at the same speeds as HDSL but requires only two wires instead of four. Also, the encoding for HDSL2 is more efficient than for **HDSL.**  
Another technology, based on HDSL2, is G.SHDSL, which is faster and can optimize performance based on telephone line conditions.

## IDSL

ISDN DSL (IDSL) is a hybrid of Integrated Services Digital Network (ISDN) and DSL technologies. IDSL runs over a single pair of wires. Unlike ISDN, IDSL is always on.

**What is L1, L2, L3 Support?**

### Level 1(L1)

This is the initial support level responsible for basic customer issues. The first job of a Tier I specialist is to gather the customer’s information and to determine the customer’s issue by analyzing the symptoms and figuring out the underlying problem.Technical support specialists in this group typically handle straightforward and simple problems while “possibly using some kind of knowledge management tool.” This includes troubleshooting methods such as verifying physical layer issues, resolving username and password problems, uninstalling/reinstalling basic software applications, verification of proper hardware and software set up, and assistance with navigating around application menus.

### Level 2(L2)

This is a more in-depth technical support level than Tier I containing experienced and more knowledgeable personnel on a particular product or service. Technicians in this realm of knowledge are responsible for assisting Tier I personnel solve basic technical problems and for investigating elevated issues by confirming the validity of the problem and seeking for known solutions related to these more complex issues.If a problem is new and/or personnel from this group cannot determine a solution, they are responsible for raising this issue to the Tier III technical support group. This may include, but is not limited to onsite installations or replacements of various hardware components, software repair, diagnostic testing, and the utilization of remote control tools used to take over the user’s machine for the sole purpose of troubleshooting and finding a solution to the problem.

### Level 3(L3)

This is the highest level of support in a three-tiered technical support model responsible for handling the most difficult or advanced problems. These individuals are experts in their fields and are responsible for not only assisting both Tier I and Tier II personnel, but with the research and development of solutions to new or unknown issues. Note that Tier III technicians have the same responsibility as Tier II technicians in reviewing the work order and assessing the time already spent with the customer so that the work is prioritized and time management is sufficiently utilized.

### Level 4(L4)

While not universally used, a fourth level often represents an escalation point beyond the organization. This is generally a hardware or software vendor. Within a corporate incident management system it is important to continue to track incidents even when they are being actioned by a vendor and the Service Level Agreement (SLA) may have specific provision for this.

**What is Spyware and Firmware?**

**Spyware** is a type of malware that can be installed on computers, and which collects small pieces of information about users without their knowledge. The presence of spyware is typically hidden from the user, and can be difficult to detect. Typically, spyware is secretly installed on the user's personal computer.

In electronics and computing, **firmware** is a term often used to denote the fixed, usually rather small, programs and/or data structures that internally control various electronic devices.

## Difference between Transmission Control Protocol (TCP) and User Datagram Protocol (UDP)

### Transmission Control Protocol (TCP)

1) Transmission Control Protocol (TCP) is a connection oriented protocol, which means the devices should open a connection before transmitting data and should close the connection gracefully after transmitting the data.

2) Transmission Control Protocol (TCP) assure reliable delivery of data to the destination.

3) Transmission Control Protocol (TCP) protocol provides extensive error checking mechanisms such as flow control and acknowledgment of data.

4) Sequencing of data is a feature of Transmission Control Protocol (TCP).

5) Delivery of data is guaranteed if you are using Transmission Control Protocol (TCP).

6) Transmission Control Protocol (TCP) is comparatively slow because of these extensive error checking mechanisms

7) Multiplexing and Demultiplexing is possible in Transmission Control Protocol (TCP) using TCP port numbers.

8) Retransmission of lost packets is possible in Transmission Control Protocol (TCP).

### User Datagram Protocol (UDP)

1) User Datagram Protocol (UDP) is Datagram oriented protocol with no overhead for opening, maintaining, and closing a connection.

2) User Datagram Protocol (UDP) is efficient for broadcast/multicast transmission.

3) User Datagram protocol (UDP) has only the basic error checking mechanism using checksums.

4) There is no sequencing of data in User Datagram protocol (UDP) .

5) The delivery of data cannot be guaranteed in User Datagram protocol (UDP) .

6) User Datagram protocol (UDP) is faster, simpler and more efficient than TCP. However, User Datagram protocol (UDP) it is less robust then TCP

7) Multiplexing and Demultiplexing is possible in User Datagram Protcol (UDP) using UDP port numbers.

8) There is no retransmission of lost packets in User Datagram Protcol (UDP).

**Which is the faster protocol either UDP or TCP?**

User Datagram protocol (UDP) is faster, simpler and more efficient than TCP.

**What is difference between static ip address and dynamic ip address?**

A dynamic IP is one that changes every time you connect to the network & a static IP is one that remains the same no matter how many times you connect and disconnect from the network.

**Why is called light weight?**

LDAP (Lightweight Directory Access Protocol) is a protocol for communications between LDAP servers and LDAP clients. LDAP servers store "directories" which are access by LDAP clients.

LDAP is called lightweight because it is a smaller and easier protocol which was derived from the X.500 DAP (Directory Access Protocol) defined in the OSI network protocol stack.

**What's the meaning of ARP & RARP**

## **A**ddress **R**esolution **P**rotocol, a network layer protocol used to convert an IP address into a physical address. ARP and RARP. The ARP protocol is used to map IP addresses to MAC addresses. RARP, the Reverse ARP Protocol, is used to map MAC addresses to IP addresse.

**What is the difference between TFTP and FTP application layer protocols?**

FTP depends on TCP, is connection oriented, and provides reliable control. TFTP depends on UDP, requires less overhead, and provides virtually no control.

FTP provides user authentication. TFTP does not.

FTP uses well-known TCP port numbers: 20 for data and 21 for connection dialog. TFTP uses UDP port number 69 for its file transfer activity.

**What is a network management system?**

A Network Management System (NMS) is a combination of hardware and software used to monitor and administer a network.

**If A sends a message to B with encryption then key is**

A public key

**How do you double-boot a Win 2003 server box?**

The Boot.ini file is set as read-only, system, and hidden to prevent unwanted editing. To change the Boot.ini timeout and default settings, use the System option in Control Panel from the Advanced tab and select Startup.

**What do you do if earlier application doesn’t run on Windows Server 2003?**

When an application that ran on an earlier legacy version of Windows cannot be loaded during the setup function or if it later malfunctions, you must run the compatibility mode function. This is accomplished by right-clicking the application or setup program and selecting Properties –> Compatibility –> selecting the previously supported operating system.

**If you uninstall Windows Server 2003, which operating systems can you revert to?**

Win ME, Win 98, 2000, XP.

Note, however, that you [cannot upgrade from ME and 98 to Windows Server 2003](http://www.microsoft.com/technet/prodtechnol/windowsserver2003/library/ServerHelp/8b42cf90-1e72-4579-b0ad-2e2b948ce31c.mspx).

**How do you get to Internet Firewall settings?**

Start –> Control Panel –> Network and Internet Connections –> Network Connections.

**What are the Windows Server 2003 keyboard shortcuts?**

Winkey opens or closes the Start menu.

Winkey + BREAK displays the System Properties dialog box.

Winkey + TAB moves the focus to the next application in the taskbar.

Winkey + SHIFT + TAB moves the focus to the previous application in the taskbar.

Winkey + B moves the focus to the notification area.

Winkey + D shows the desktop.

Winkey + E opens Windows Explorer showing My Computer.

Winkey + F opens the Search panel.

Winkey + CTRL + F opens the Search panel with Search for Computers module selected.

Winkey + F1 opens Help.

Winkey + M minimizes all.

Winkey + SHIFT+ M undoes minimization.

Winkey + R opens Run dialog.

Winkey + U opens the Utility Manager.

Winkey + L locks the computer.

**What is Active Directory?**

Active Directory is a network-based object store and service that locates and manages resources, and makes these resources available to authorized users and groups. An underlying principle of the Active Directory is that everything is considered an object—people, servers, workstations, printers, documents, and devices. Each object has certain attributes and its own security access control list (ACL).

**Where are the Windows NT Primary Domain Controller (PDC) and its Backup Domain Controller (BDC) in Server 2003?**

The Active Directory replaces them. Now all domain controllers share a multimaster peer-to-peer read and write relationship that hosts copies of the Active Directory.

**How long does it take for security changes to be replicated among the domain controllers?**

Security-related modifications are replicated within a site immediately. These changes include account and individual user lockout policies, changes to password policies, changes to computer account passwords, and modifications to the Local Security Authority (LSA).

**How does Windows 2003 Server try to prevent a middle-man attack on encrypted line?**

Time stamp is attached to the initial client request, encrypted with the shared key.

**What hashing algorithms are used in Windows 2003 Server?**

RSA Data Security’s Message Digest 5 (MD5), produces a 128-bit hash, and the Secure Hash Algorithm 1 (SHA-1), produces a 160-bit hash.

**What third-party certificate exchange protocols are used by Windows 2003 Server?**

Windows Server 2003 uses the industry standard PKCS-10 certificate request and PKCS-7 certificate response to exchange CA certificates with third-party certificate authorities.

**What’s the number of permitted unsuccessful logons on Administrator account?**

Unlimited. Remember, though, that it’s the Administrator account, not any account that’s part of the Administrators group.

**If hashing is one-way function and Windows Server uses hashing for storing passwords, how is it possible to attack the password lists, specifically the ones using NTLMv1?**

A cracker would launch a dictionary attack by hashing every imaginable term used for password and then compare the hashes.

**What’s the difference between guest accounts in Server 2003 and other editions?**

More restrictive in Windows Server 2003.

**How many passwords by default are remembered when you check "Enforce Password History Remembered"?**

User’s last 6 passwords.

**What is presentation layer responsible for in the OSI model?**

The presentation layer establishes the data format prior to passing it along to the network application’s interface. TCP/IP networks perform this task at the application layer.

**Does Windows Server 2003 support IPv6?**

Yes, run ipv6.exe from command line to disable it.

**Can Windows Server 2003 function as a bridge?**

Yes, and it’s a new feature for the 2003 product. You can combine several networks and devices connected via several adapters by enabling IP routing.

**What’s the difference between the basic disk and dynamic disk?**

The basic type contains partitions, extended partitions, logical drivers, and an assortment of static volumes; the dynamic type does not use partitions but dynamically manages volumes and provides advanced storage options

**What’s a media pool?**

It is any compilation of disks or tapes with the same administrative properties.

**How do you install recovery console?**

C:\i386\win32 /cmdcons, assuming that your Win server installation is on drive C.

**What’s new in Terminal Services for Windows 2003 Server?**

Supports audio transmissions as well, although prepare for heavy network load.

**What scripts ship with IIS 6.0?**

*iisweb.vsb* to create, delete, start, stop, and list Web sites, *iisftp.vsb* to create, delete, start, stop, and list FTP sites, *iisdir.vsb* to create, delete, start, stop, and display virtual directories, *iisftpdr.vsb* to create, delete, start, stop, and display virtual directories under an FTP root, *iiscnfg.vbs* to export and import IIS configuration to an XML file.

**What’s the name of the user who connects to the Web site anonymously?**

IUSR\_computername

**What secure authentication and encryption mechanisms are supported by IIS 6.0?**

Basic authentication, Digest authentication, Advanced digest authentication, Certificate-based Web transactions that use PKCS #7/PKCS #10, Fortezza, SSL, Server-Gated Cryptography, Transport Layer Security

**What’s the relation between SSL and TLS?**

Transport Layer Security (TLS) extends SSL by providing cryptographic authentication.

**What’s the role of http.sys in IIS?**

It is the point of contact for all incoming HTTP requests. It listens for requests and queues them until they are all processed, no more queues are available, or the Web server is shut down.

**Where’s ASP cache located on IIS 6.0?**

On disk, as opposed to memory, as it used to be in IIS 5.

**What is socket pooling?**

Non-blocking socket usage, introduced in IIS 6.0. More than one application can use a given socket.

**Describe the process of clustering with Windows 2003 Server when a new node is added.**

As a node goes online, it searches for other nodes to join by polling the designated internal network. In this way, all nodes are notified of the new node’s existence. If other nodes cannot be found on a preexisting cluster, the new node takes control of the quorum resources residing on the shared disk that contains state and configuration data.

**What applications are not capable of performing in Windows 2003 Server clusters?**

The ones written exclusively for NetBEUI and IPX.

**What’s a heartbeat?**

Communication processes between the nodes designed to ensure node’s health.

**What’s a threshold in clustered environment?**

The number of times a restart is attempted, when the node fails.

**You need to change and admin password on a clustered Windows box, but that requires rebooting the cluster, doesn’t it?**

No, it doesn’t. In 2003 environment you can do that via cluster.exe utility which does not require rebooting the entire cluster.

**For the document of size 1 MB, what size would you expect the index to be with Indexing Service?**

150-300 KB, 15-30% is a reasonable expectation.

**Doesn’t the Indexing Service introduce a security flaw when allowing access to the index?**

No, because users can only view the indices of documents and folders that they have permissions for.

**What’s the typical size of the index?**

Less then 100K documents - up to 128 MB. More than that - 256+ MB.

**Which add-on package for Windows 2003 Server would you use to monitor the installed software and license compliance?**

SMS (System Management Server).

**Which service do you use to set up various alerts?**

MOM (Microsoft Operations Manager).

**What port does telnet use?**

Telnet use port number 23

**What is SMTP?**

**S**imple **M**ail **T**ransfer **P**rotocol, a protocol for sending e-mail messages between servers. Most e-mail systems that send mail over the Internet use SMTP to send messages from one server to another; the messages can then be retrieved with an e-mail client using either POP or IMAP. In addition, SMTP is generally used to send messages from a mail client to a mail server. This is why you need to specify both the POP or IMAP server and the SMTP server when you configure your e-mail application.

**How would you troubleshoot a printer?**

Printer does not have power indicator

Cables not connected properly

Printer error (orange or blinking light)

No paper or paper jam

Printer drivers

**How does traceroute work?**

The "traceroute" program uses ICMP messaging and the time to live (TTL) field in the IP header. It works by sending a packet to the intended host with a TTL value of 1. The first router will send back the ICMP "time exceeded" message to the sending host. Then the traceroute program will send a message with a TTL of 2, then 3, etc. This way it will get information about each router using the information received in the ICMP packets. To get information about the receiving host, the message is sent to a port that is not likely to be serviced by that host. A ICMP "port unreachable" error message is generated and sent back.

**What is a Global Catalog?**

The global catalog is a distributed data repository that contains a searchable, partial representation of every object in every domain in a multidomain Active Directory Domain Services (AD DS) forest. The global catalog is stored on domain controllers that have been designated as global catalog servers and is distributed through multimaster replication. Searches that are directed to the global catalog are faster because they do not involve referrals to different domain controllers.

**Explain the function of DNS.**

Domain Name System (DNS) is the name resolution protocol for TCP/IP networks, such as the Internet. A DNS server hosts the information that enables client computers to resolve memorable, alphanumeric DNS names to the IP addresses that computers use to communicate with each other.

Unless you have some really bad connections that may not be able to handle the extra traffic, you should make every DC a GC. In ANY single domain forest, it is recommended and beneficial to make all DCs GCs since it has no replication impact and serves to better distribute query load.

**What is IPv6?**

IPv6 (*Internet Protocol Version 6*) is also called IPng (*Internet Protocol next generation*) and it is the newest version of the Internet Protocol (IP) reviewed in the IETF standards committees to replace the current version of IPv4 (*Internet Protocol Version 4*).

The official name of IPng is IPv6, where IP stands for *Internet Protocol* and v6 stands for *version 6*.

IPv6 is designed to allow the Internet to grow steadily, both in terms of the number of hosts connected and the total amount of data traffic transmitted.

IPv6 is an Internet Protocol (IP) for packet-switched internetworking that specifies the format of packets (also called datagrams) and the addressing scheme across multiple IP networks. In comparing the two protocols IPv6 expands upon the addressing and routing capabilities of IPv4 in a number of ways including:

* In IPv6 the IP address size is increased from 32 bits to 128 bits
* IPv6 supports a greater number of addressable nodes
* IPv6 provides more levels of addressing hierarchy
* IPv6 offers simpler auto-configuration of addresses
* Ipv6 also supports simplified header format

The biggest benefit of IPv6 is that it will replace the IPv4 32-bit address scheme with a much longer 128-bit address scheme. The IPv4 32-bit address scheme allows for a total of 2^32 addresses while IPv6 allows for 2^128 total addresses.

**What is the file that’s responsible for keep all Active Directory database?**

The Active Directory Database is Stored in %SYSTEM ROOT%\NDTS folder.   
The file is called as ntds.dit.   
Along with this file there are other files also present in this folder.   
List of files and use of those files are listed below  
1. ntds.dit : This is the main database file for active directory.  
2. edb.log : When a transaction performed to ad database, like writing some data first the data will be stored to this file. And after that it will be sent to database. So the system performance will be depends on how this data from edb.log file will be written to ntds.dit  
3. res1.log : Used as reserve space in the case when drive had low space. It is basically 10MB in size and creted when we run dcpromo.  
4. res2.log : Same as res1.log. It is also 10MB in size and the purspose also same.  
5. edb.chk : This file records the transactions committed to ad database. During shutdown, shutdown statement is written to this file. If it is not found when the system rebooted, the ad database tries to check with edb.log for the updated information.  
Edb corruption or Edb active directory corruption is really serious. However you can get this repaired by using edb repair tool.

Out look :questions and answers

Default path of .pst

1. On the **File** menu, click **Data File Management**.
2. Click the personal folders (.pst) files that you want to compact, and then click **Settings**.   
     
   **Note** For Windows Vista, the default path of .pst files isdrive:\Users\user\AppData\Local\Microsoft\Outlook. For Microsoft Windows XP or Microsoft Windows Server 2003, the default path of .pst files is drive:\Documents and Settings\user\Local Settings\Application Data\Microsoft\Outlook.
3. Click **Compact Now**, click **OK**, and then click **Close**.

What is virtualization ?

Operating system virtualization is the use of software to allow a piece of hardware to run multiple operating system images at the same time..

Different Virtualization product ?

VMware, hyper view, citrix

[http://support.microsoft.com/library/images/support/kbgraphics/public/en-us/uparrow.gif](http://support.microsoft.com/kb/322756#top)