

## Lesson 9: Internet Services and Tools for Business



### Learning Targets

- Identify mass e-mail and texting services
- Define list servers and listserv groups
- Use FTP to transfer files between computers
- Manage downloaded files
- Use Virtual Network Computing (VNC) and Remote Desktop Connection
- Identify the functions of peer-to-peer networks
- Troubleshoot Internet problems using TCP/IP tools
- Discuss open-source development methodologies
- Discuss proprietary software and end-user license agreements (EULAs)
- Discuss software patents

## Mass E-Mail and Texting Services

- Two popular mass-marketing technologies used to push advertisements, promotions and emergency broadcasts to customers are:
  - Opt-in e-mail marketing
  - Opt-in mass texting services



## List Servers

- **List server** – collects and distributes information to and from listserve groups
- List servers:
  - LISTSERV ([www.lsoft.com](http://www.lsoft.com))
  - Majordomo ([www.greatcircle.com/majordomo](http://www.greatcircle.com/majordomo))
  - Lyris ([www.lyris.com](http://www.lyris.com))
- **Listserve group** – participants who subscribe to a mailing list through a list server



## File Transfer Protocol (FTP)

- Used to transfer files between two computers
- Public FTP servers generally allow anonymous logon and allow downloading of files only
- Files are downloaded via the FTP "get" command
- Corporate FTP servers usually require a user name and password (you may upload files if you have permission)
- Files are uploaded via the FTP "put" command
- You can use command-line FTP, a browser's built-in FTP client or a specialized FTP client
- Secure versions of FTP include:
  - Secure Copy (SCP)
  - SSH File Transfer Protocol (S/FTP)
  - SSL/TLS-enabled FTP (FTPS)



## Managing Download Files

- You may need to define MIME types for files that you download
- Many files downloaded from FTP servers are *compressed* (using a compression utility) and must be decompressed before you can use them
- Common compression utilities include:
  - Zip/unzip
  - Bzip2/bunzip2
  - Bzip/bunzip
  - Gzip/gunzip
  - Compress/uncompress
  - RAR/WinRAR



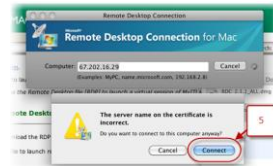
## Virtual Network Computing (VNC)

- VNC allows you to control a computer at a remote location as if you were sitting in front of it
- VNC consists of two components: the server and the viewer
- The viewer and server do not need to be running the same operating system



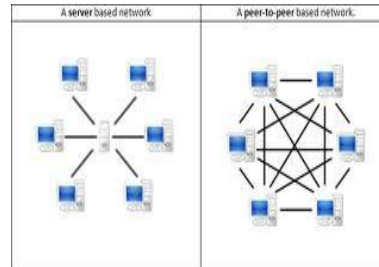
## Remote Desktop Connection

- Remote Desktop Connection is part of Microsoft Terminal Services, which is a suite of tools that enables computers to function as dedicated clients to a server running Windows
- You use Remote Desktop Connection to control a remote computer; similar to VNC



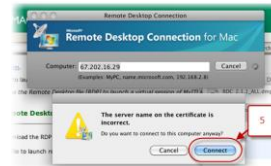
## Peer-to-Peer Networks

- In a peer-to-peer network, each computer has **both** client and server capabilities
- On the Internet, a peer-to-peer (referred to as P2P) network allows a group of users to connect with each other and directly share files among their hard drives
- *P2P networks* are inexpensive and allow users to share bandwidth
- *BitTorrent* is a P2P application used for downloading huge files (more than a gigabyte)



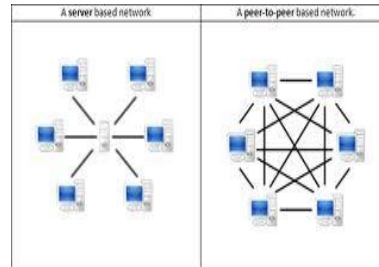
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## Troubleshooting Using TCP/IP Tools



- The *ipconfig* command – displays your system's IP configurations
- The *ping* command – tests connectivity between a source system and a destination system
- The *tracert* command – determines the path between a source system and a destination system

## Open-Source Development

**Open source** – a peer-based development process in which the source code is available to anyone and can be developed concurrently

- Open source encourages wide adoption of software because it is not associated with a specific vendor
- Open-source licenses:
  - GNU General Public License (GPL)
  - BSD License
  - Apache License
  - Mozilla Public License (MPL)
  - Common Public License (CPL)



## Proprietary Software and EULAs

- **Proprietary software** – software that is owned by an author or entity
- **End-user license agreement (EULA)** – a legal contract between the software's author and the end user who uses the software
- **A typical EULA:**
  - Copyrights the code so that it belongs to the author
  - Specifies exactly how an end user may use the software



## Software Patents

- **Patent** – a set of exclusive rights granted to an inventor for a fixed period of time upon disclosure of the invention
- Patent jurisdiction:
  - Patents do not apply worldwide
  - You must apply to a specific patent office belonging to a particular country or group of countries
- Patent controversy:
  - Patents can squelch creativity
  - Patents can increase cost
  - Patents are difficult to enforce and apply



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