

INTERNET AND eBUSINESS (I)

(October 31, 2016)

BUS3500 - Abdou Illia, Fall 2016

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LEARNING GOALS

- Identify and describe the major Internet applications.
- Define the World Wide Web and its operation.
- Distinguish between Internet, intranet, extranet, and explain how companies use them.

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Test your Internet knowledge (1)

During a previous class meeting, we saw that a network can be set up in order to share software resources (like data files, databases, and programs) and hardware resources (like printers). In other words, we can say that a network can be set up to provide file service, database service, and print service to users. Based on your Internet experience what kind of services users can get from the Internet?

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Brief history of the Internet

1969	The Defense Advanced Research Projects Agency developed ARPANET, the precursor of the Internet
1971	Ray Tomlison invents e-mail
1979	USENET newsgroups created at Duke University and the University of North Carolina
1984	Domain Name System (DNS) established
1991	Tim Berners-Lee creates the World Wide Web
1994	First online shopping mall, first spam email, first pizza ordered online, first advertisement banner
2000	A major denial of service attack brings down websites such as Yahoo!, Amazon.com, and eBay
2002	Denial of service attack knocks out 8/15 root DNS servers

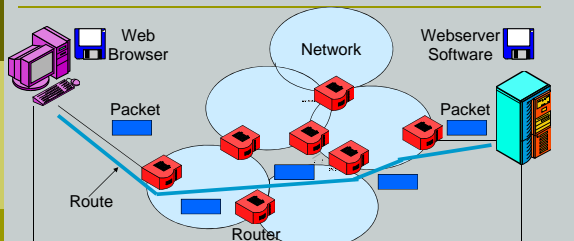
Test your Internet knowledge (2)

Based on your Internet experience what are the different types of Internet connections a residential user or a business can subscribe for?

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Accessing the Internet (www)



User PC needs: - Workstation Operating System - TCP/IP - Web browser (e.g. Internet Explorer) - Internet access (e.g. thru an ISP) - IP Address (e.g. 128.150.50.9)	Webservers needs: - Network (or Server) Operating System - TCP/IP - Domain name (e.g. iiu.edu) - Internet access - IP Address (e.g. 139.67.8.125)
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Internet applications/services

- ❑ E-Mail
- ❑ File transfers
- ❑ Instant messaging (IM)
- ❑ Newsgroups
- ❑ Streaming audio and video
- ❑ Internet telephony
- ❑ World Wide Web (WWW)
- ❑ Etc.

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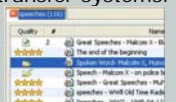
E-Mail

- ❑ Among the most popular and widely used Internet applications
- ❑ Billions of e-mails sent every day
 - Spam – junk e-mail messages
 - Spam costs corporate America *billions* per year
- ❑ Every e-mail message contains head that describes source and destination for the message
- ❑ E-mail messages are text, but may have attachments of many types of digital data
 - Viruses often transmitted via e-mail

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File Transfer

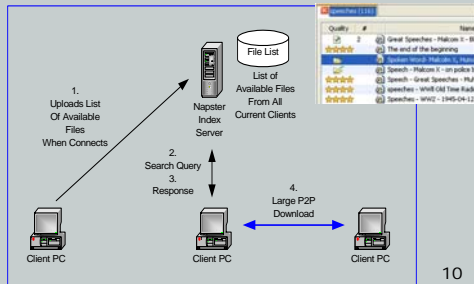
- ❑ File transfer protocol (FTP)
 - Protocol providing for transmission of a file between an Internet server and a user's computer
- ❑ Peer-to-peer (P2P) file sharing
 - Share data from one computer to another
 - Every user can be a server and a client
 - With P2P, every user on the network can make *data* available to every other user on the network
 - Examples of P2P File transfer systems:
 - ❑ Napster
 - ❑ Kazaa
 - ❑ Gnutella
 - ❑ Limewire



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P2P service with facilitating server

- Files to be shared are on client PCs
- Clients upload the list of available file (NOT the actual files)



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Instant Messaging

- Allows user to create a private chat session with another user
- IM started with AOL
- Many Web-based companies use IM technology for customer service
 - State of Virginia
 - eBay
 - Dell

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Usenet Newsgroups

- Online, *bulletin board* discussion forums
- Users post and read messages
- More than 100,000 newsgroups
- Millions of newsgroup readers
- Important information resource, especially for technical issues and products

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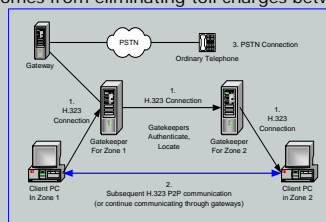
Streaming Audio and Video

- Creating and sending audio and video files
 - Sports
 - Men's intercollegiate basketball at sports.yahoo.com
 - Major league baseball
 - News
 - Fox News
 - CNN radio
 - Business
 - ZDNet
 - Education
 - Warriors of the Net
 - General
 - Youtube.com
- Also known as Podcasting

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Internet Telephony

- Uses Voice-over Internet Protocol (VoIP)
- Can use your computer to make phone calls
- Software connects computers via the Internet and transmits voice data
- Savings comes from eliminating toll charges between locations



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Intranets and Extranets

- Intranet
 - Internal company network that uses Internet and WWW technologies.
 - Typical Use:
 - Finding and sharing work documents
 - Collaboration between employees to work in teams
 - Communication tool
 - Typically, only internal employees can get access
- Extranet
 - Web site that allows customers and business partners limited access to organizational intranet
 - Uses Internet and WWW technologies
 - Add additional security through the use of a Virtual Private Network (VPN)

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Portal

□ Portal

- Web site that offers a broad array of resources and services; such as
 - email
 - newsgroup
 - Search engines
 - Online shopping malls
- Example: yahoo!, msn, aol

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Test Your Internet knowledge (3)

- A company has set up an Intranet to allow virtual teams to work on projects, and to provide a mean for people to share documents that might be needed for work. Which of the following group of people is more likely to get access to these two services?
 - a) The company's customers
 - b) The company's suppliers
 - c) The company's employees
 - d) All of the above

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Test Your Internet knowledge (4)

- A company has set up an Intranet to allow virtual teams to work on projects, and to provide a mean for people to share documents that are needed for work. Which of the following protocols needs to be installed on each computer that needs to be used for getting access to the Intranet ?
 - a) Token ring
 - b) TCP/IP
 - c) All of the above
 - d) Neither a nor b

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Test Your Internet knowledge (5)

- Your business has 10 employees. You just bought 10 desktop computers and subscribed to Internet DSL service. Which of the following will be needed on the users' side to connect the computers to the Internet and navigate the World Wide Web?
 - a) A server operating system
 - b) Workstations operating systems
 - c) TCP/IP protocol
 - d) Web browsers
 - e) Domain names

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