12.3A: WEB TECHNOLOGIES AND OPERATING SYSTEMS. "THE WEB AND THE INTERNET"

AIM – CONTRAST THE INTERNET, THE WORLD WIDE WEB AND AN INTRANET

Topic "The web and the internet"

In this lesson main objective is

contrast the Internet, the World Wide Web and an intranet

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The Internet

The Internet is ?

A worldwide interconnection of computers and networks that use the protocol IP.

It allows for WWW, FTP, VoIP, Gaming, Filesharing, video, email.

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Uses for the internet

WWW or HTTP Hyper Text Transfer Protocol

Email – Outlook, Yahoo, Googlemail

FTP File Transfer Protocol

Gaming

Video On Demand

Voice Over IP – Telephone Services

File Sharing

INTRANETS

What is an intranet ?

It is an internal website that is setup internally for companies and can be accessed by employees for the purpose of standard documents or information and many items of information and data.

INTERNAL WEBSITE WITHIN A COMPANY ACCESSED BY EMPLOYEES

Connection to the internet - Hardware

What do we need to connect to the internet ?

- Computer or smart phone
- Network hub if part of a network
- A wireless enabled Router if using WiFi
- ADSL or cable modem
- An Internet Service Provider
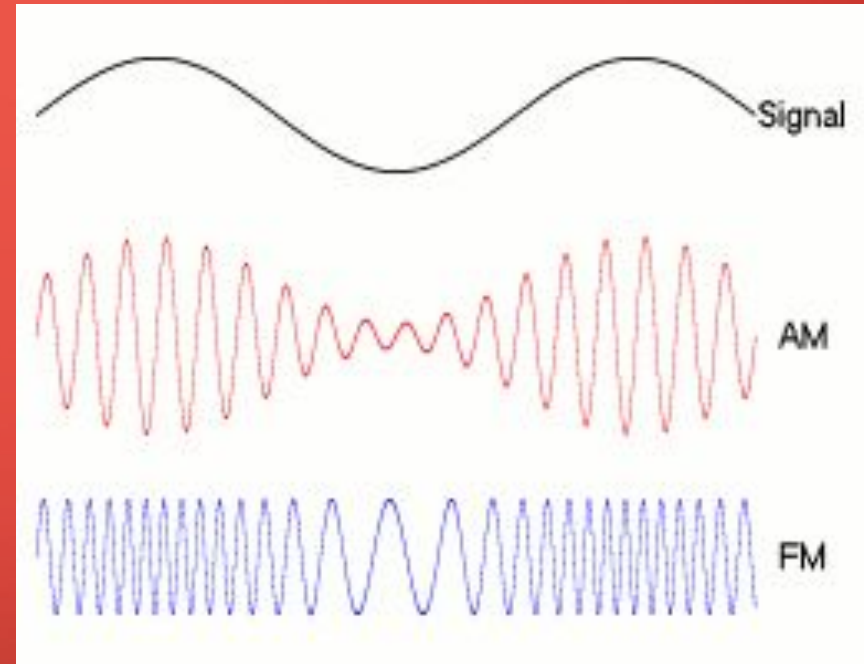
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MODEM

FM Frequency Modulation

AM Amplitude Modulation

Modulate a carrier signal into 1's and 0's.

FM How Often

AM Loudness/Amplification

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ROUTER

A router is a device that has an IP address. Computers can then connect to it using this address. It then forward links onto another communications device that can access the internet.

SWITCH

A switch is used to connect different network segments.

A network segment is a set of computers all connected together.

Like an intelligent hub.

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A Network HUB

A device that connects
computers together
and can link them all
on to another device.

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Types of Line

BROADBAND – Handles a broad band of frequencies (TV, Voice, Data)

DSL is Digital subscribers line (Voice and data)

DIAL-UP is maximum of 56k (Data)

ISDN is Integrated Services Digital Network (Voice, Data, Video)

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Other ways to connect to the internet (HARDWARE)

What is there ?

- Smart phone using 3G or 4g
- USB ADSL dongle that connects to a service provider network

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ISP – Internet Service Providers

What are they ?

Who are they ?

What do they do ?

An ISP sells Internet access to companies and individuals.

It provides web servers which connect to the Internet.

An ISP will provide it's customers with a wide range of services...

Cable Television/Telephone services

Bandwidth options.

Email service.

Web Hosting.

Online and Telephone assistance.

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Software On The Internet

What software can you think of do you use to access services on the internet ?

OUTLOOK

Lime Wire – File Sharing

BROWSERS

FIREWALL

EMAIL

SKYPE

FTP – File Transfer Protocol

SKYPE

GAMING

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BROWSERS

Browsers – These allow you to utilise HTTP and HTTPS to view the WorldWideWeb.

What browsers are there ?

Internet Explorer
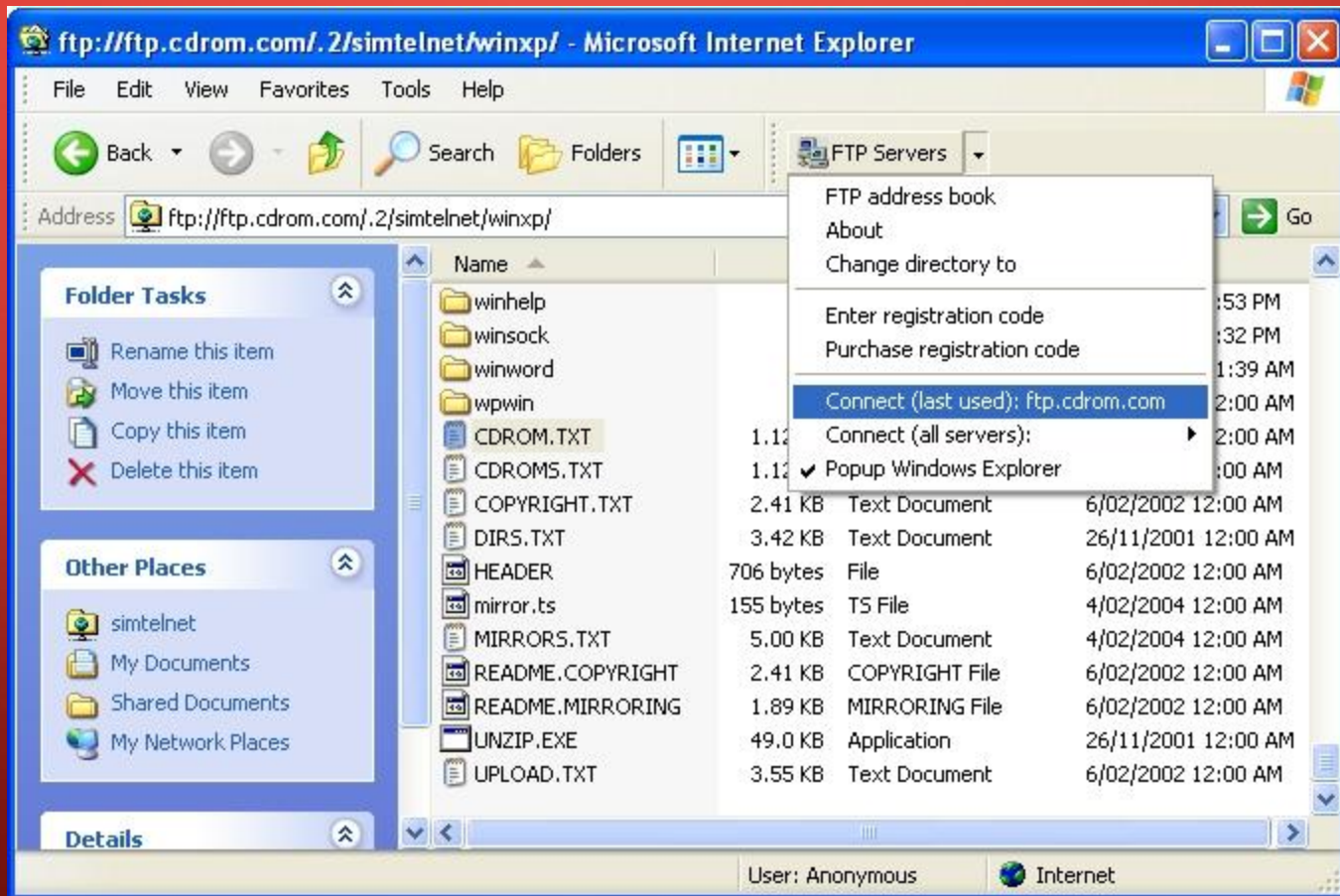
Mozilla Firefox

Netscape Navigator

Opera

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FTP

File Transfer Protocol is used to access websites via a different door to download files.

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EMAIL Software that composes, sends and receives email

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Internet Security Risks ?

What risks are there in using the internet

Downloading

Entering Personal Details

Online Banking

Buying Items Off The Internet

Sending Emails

Uploading Files

RISKS !!!

Viruses, attack, hacking, identity theft, fraud, getting passwords, stealing bank details, intercepting emails, theft of data, posting unwanted videos, posting unwanted text……….

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RISK PREVENTION

What do you need to do to minimise some or all of the risk when accessing the internet ?

FIREWALL

VIRUS SCANNER

INSTALL ADWARE AND MALWARE SCANNERS

BE AWARE OF EMAIL SCAMS

BE CAREFUL WHEN USING PAYMENT SITES

BE CAREFUL DOWNLOADING AND UPLOADING

USE COMPLEX PASSWORDS

WHAT IS WEB?

- The **Web (World Wide Web)** consists of information organized into Web pages containing text and graphic images.

- It contains hypertext links, or highlighted keywords and images that lead to related information.

- A collection of linked Web pages that has a common theme or focus is called a **Web site**.

- The main page that all of the pages on a particular Web site are organized around and link back to is called the site's **home page**.

COMPARE INTERNET AND INTRANET

Name	Internet	Intranet
Differences		

QUESTIONS

- 1. what is internet?

- 2. What is intranet? Give a examples

- 3. Explain what differences between hub and switch, router?

- 4. Why we call switch a intelligent brother of hub?

- 5. What is ISP? Give a examples in your city.