

Unit 8: e-Commerce

P1 - Technologies



Protocols

In URLs there are a range of protocols that allow users to access different aspects of the Internet

Protocol	Accesses
http://	Web servers
https://	Secure web servers (often used when you are trying to gain remote access to secure web content) for example when someone accesses their organisation's email systems remotely, transmitting credit-card information or logon details
news://	Newsgroups (as long as the user has subscribed)
ftp://	File transfer protocol servers and related files
file://	HTML documents stored on your local hard drive (although the full path does need to be defined)

Internet Communication

- Internet communication relies on a number of different technologies, each bringing its own terminology and jargon
- HTTP (HyperText Transfer Protocol)
 - Performs the requests and retrieval functions when a web browser tries to load a particular web page

Internet Communication

- URL (Uniform Resource Locator) is the address of a resource available on the internet
- HTTPS (HTTP Secured) is used for security-sensitive communications such as:-
 - Online payment transactions
 - Online banking
 - Corporate log-ons

Internet Communication

- File Transfer Protocol (FTP) is a common method of moving files over a network
- Simple Mail Transfer Protocol (SMTP) is a protocol used to send and receive mail messages between servers

Considerations

- Domain Names/Structure
- Multiple registration of domains
- Download Speeds
- Browser & Platform Compatibility

Domain Names/Structure

- Each website is identified by the **IP address** of its web server.
- A website purchases a domain name on the internet as an IP address are often complicated to remember. The IP address and domain name are then linked.
- A domain name is the characters that appear between the prefix (eg:www.) and the suffix (eg.com). An example is google.

Domain Names/Structure

- A domain name is part of a larger Internet address called a "URL". A URL goes into much more detail than a domain name, providing much more information, including the specific page address, folder name, machine name, and protocol language.
- Example Uniform Resource Locator pages, with their domain names in bold.

[http://www.**nytimes.com**/2007/07/19/books/19potter.html](http://www.nytimes.com/2007/07/19/books/19potter.html)

[http://www.**gamesindustry.biz**/content_page.php?aid=26858](http://www.gamesindustry.biz/content_page.php?aid=26858)

[http://www.**spain.info**/TourSpain/Destinos/](http://www.spain.info/TourSpain/Destinos/)

Domain Names/Structure

- Trying to remember IP addresses is as difficult as trying to remember people's phone numbers. Not many people do it well and you are far more likely to be using a domain name to access a website.
- A domain name allows us to link to servers and other computers using easily remembered names. The domain name also tells us a bit about the location we are visiting through the use of top level domain names

Domain Names/Structure

- **Domain Structure**
- Domain names are used since they are easier to remember than IP addresses
- Domain name acts as a type of alias to the actual IP address
- The domain and IP address pairs are linked so that customers looking for a particular domain, is converted to a target IP address
- Domain names should be:
 - Easily remembered
 - Reflective of the business they represent
 - Unlikely to cause offence in other countries

Web architecture

- **Domain Structure**
- An Example
- <http://www.bbc.co.uk/>
- The IP address is 212.58.251.195

Web architecture

- **Domain Structure**

- A Domain name can be broken down into the following sections.

- Top-Level Domains (“TLD”): also called “First-Level Domains”

-Sub-Level Domains (“SLD”): also called “Second-Level Domains,” “Third-Level Domains,” etc.

Web architecture

- **Domain Structure – Some examples**





Web architecture

- **Domain Name Registrars**
- A domain name should be easy for a user to remember, simple to type and meaningful, reflecting the sites content. Examples of words used together to form a domain name is webuyanycar.com
- Many companies also buy similar sounding domain names such as
 - www.edexcel.com
 - www.edexcel.co.uk
 - www.edexel.com

Download Speeds

- Download speed of narrowband solutions like dial-up will be much slower than for broadband access through cable or ADSL
- Websites achieve this by providing graphic and text-only versions of their content, enabling customers to choose which is most appropriate to their download capabilities

Browser & Platform Compatibility

- Care should be taken when building websites as, despite firm standards being laid down by the World Wide Web Consortium (W3C), many browsers interpret and render HTML and cascading style sheets (CSS) differently
- Even though Microsoft IE is by far the most popular browser used, potential web-page content should be tested with other browsers and different computer platforms (i.e. hardware and operating system combinations)