

Web and HTTP Protocols - Chapter 1,17 of *Webmaster in a Nutshell*

- HTTP(Hypertext Transfer Protocol)
 - Protocol used for Web Transaction
 - Remote machine(Web Server) waits for request from clients(Web Browse, HTTP Clients) for specified documents
- Uniform Resource Locators(URL)
 - An address on the web
 - Identifies each document uniquely
 - Syntax
 - <http://host/path/>
 - host – server to connect to
 - path – document requested on the server
- Web documents
 - HTML
 - XML – Extensible Markup Language
 - PDF – Portable Document Format
- Web Masters
 - Content Providers
 - Creating or editing HTML documents
 - Maintain integrity of links
 - Incorporate images and forms
 - Designers
 - Create images
 - Define “Look” of site
 - Fonts
 - Colors
 - Format
 - Programmers
 - Write CGI, Java, Server side vbscript
 - Administrators
 - Make sure server is running properly and efficiently
 - Establish new content areas
 - Write new scripts
 - Maintain security of sensitive documents and of the site in general
- HTTP
 - Client connects on designated port usually 80
 - Send document request – issues HTTP command called a METHOD followed by a document address, and an HTTP version number
 - GET /index.html HTTP/1.1

- Date: Fri, 20 Sep 1998 08:17:56 GMT
 - Server: NCSA/1.5.2
 - Last-modified Mon, 17 Jun 21:53:08 GMT
 - Content-type: text/html
 - Content-Length 2482
 - <Data>
 - Can also be used to send input data to the program
 - Input data is appended to the URI in the GET Line of the request
 - Example
 - GET /cgi-bin/birthday.pl?month=august&date=24 HTTP/1.0
- HEAD
 - Requests only the header information on a file or resource
 - Server will not send anything in data portion of response
 - Used when clients wants to find out information about the document and not retrieve it
 - Modification time of a document, useful for cache-related queries
 - Size of a document, useful for page layout, estimating arrival time, or determining whether to request a smaller version of the document
 - Type of document, to allow customized server queries
 - Example
 - Client
 - HEAD /index.html HTTP/1.0
 - Connection: Keep-Alive
 - User-Agent: Mozilla/2.02Gold (WinNT;l)
 - Host: www.oreilly.com

- Accept: image/gif,
image/x-xbitmap,
image/jpeg,
image/pjpeg, */*
 - Server responds
 - HTTP/1.0 200
Document follows
 - Date: Fri, 20 Sep 1998
08:17:56 GMT
 - Server: NCSA/1.5.2
 - Last-modified Mon, 17
Jun 21:53:08 GMT
 - Content-type: text/html
 - Content-Length 2482
- PUT
 - Allows data to be sent to the server in a client request
 - Data directed to a data handling program that the server has access to (CGI, ASP)
 - Data sent is in the entity-body section of the client's request
 - After the server processes the post request and headers, it passes the entity-body to the program specified by the URI
 - Coding scheme "URL-encoding" used with POST
 - Example
 - Client
 - POST /cgi-bin/birthday.pl
HTTP/1.0
 - User-Agent: Mozilla/2.02Gold (WinNT;l)
 - Host: www.oreilly.com
 - Accept: image/gif,
image/x-xbitmap,
image/jpeg,
image/pjpeg, */*
 - Content-type: application/x-www-form-urlencoded
 - Content-Length 20

