Layered Architecture of libWWW

Typical WWW Client

Typical WWW Client action is the flow for a user to request a response from a URL. The action requests several components, which may split to two parts –HTTP Client and WWW Client. Since the external viewer in WWW Client is where the response displays and HTTP Client contain nodes to process the action –UI Manager, Access Control, Cache Manager, Protocol Manager, Stream Manager, Presentation Manager. The action follows steps:

1. User inputs request
2. Check cache for requested URL
3. Determine request type and protocol
4. Send request to server
5. Receive requested information
6. Display requested information

First, in HTTP client, user inputs requests from the UI manager (user interface). Passing the access control, using cache manager to check if the requested URL exists. If the file is cached, it is retrieved from the cache manager and passed to the presentation manager to display the response on the external viewer. If it is not cached, the protocol manager determines the type of request and invokes the appropriate protocol then the stream manager will use it for communicating the request to the server. After receiving requested information, the information will also be passed to the presentation manager for the displaying.

Typical WWW Server

Typical WWW Server action is the flow for a server to analyze and send the request response back to the client. The action also requests several components –Stream Manager, Path Resolver, Request Analysis, Access Control, Logging. The action follows steps:

1. Receive URL request
2. Determine file location
3. Analyze request
4. Determine if access is permitted
5. HTML is served back to the Client
6. Log activity

After the stream manager receives a URL request sent from the client (step4 from above), it determines the type and path of the URL using the path resolver. Then analyze the request and ask access control whether the client is authorized for the access or not. If the client is authorized, the server will write the requested information and send the response back to the HTTP Client using (output) stream manager. When a program is to be executed, logging is created.