

WEB-APPS

Garima Ojha (Assistant Professor JECRC UDML, Jaipur)

Bhawani Singh Panwar

Hitesh Murarka

Abstract

The web oriented services are became the basic needs of today's scenario for rapidly growing intellectual field work. The web apps are being so designed that it could make an interactive experience with Dynamic contents of web server. It provides a way interaction style by assuming the web browser as a client side program responsible for action chosen by users. It imparts the functionality in multithreading concept of programming. These web apps are not only entertaining services but provide a fast accessible communication between various web servers, other applications and client over the internet.

The clearance for optimized data fetched is manipulated by the browser itself. The processing flow in web apps is making a clear distinction between various steps for each response made by web applications. Previously the term 'Application' meant for the program (such as MS Access, FOXPRO) an instance of which executes on single system. Now as technology emerges excessive features associated with web services enabled its use varies widely in mass environment.

1. Introduction

In the historical perspective 'Application' defines a program as standalone services in which an instance is executed on single system and that definition changed as technology evolved. Now a day, rapidly evolving technology changed a lot that definition in all sense of its functionality and accessibility. Web application is now become program that uses web browsers as its client where the user sends a request and response would have occur from the corresponding server which is being returned to browsers and the procedure is different from client server application as both are using the common program for interface 'The Browsers'.

The important rewards come out using web browsers as clients:

- The ubiquitous nature of browsers made possible suitability of web applications. They are preinstalled program available on every desktop ready to interact with server and there is no need to explicitly install several specialized client program on desktop reducing the unnecessary efforts required for its deployment and maintenance.
- Browsers facilitate the secure downloading and execution of more complex clients (e.g. applets, ActiveX, flash movie players) when these additional facility a browsers cannot provide at its own.

2. Architecture

The building blocks of a connected application are broken into logical chunks called as "tier". Conventional applications associated with only 1 tier, which resides on the client machine but web applications consist of n-tier approach. The main approach among them is 3-tiered application.

The most common forms of three tiers approaches are as follows in respective order as presentation, application and storage.

- Presentation Form is the first tier which represents a web browser.
- An engine using dynamic web content technology is the middle tier which is called as application logic. Some examples of web content technology are ASP, ASP.NET, ColdFusion JSP/JAVA, and PHP.
- Back end of the application which is called as database (storage) is considered as third tier.

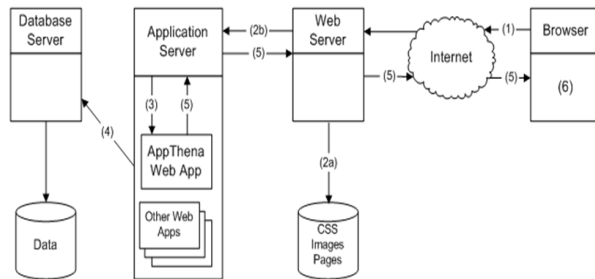


Figure 1. Web Application Architecture

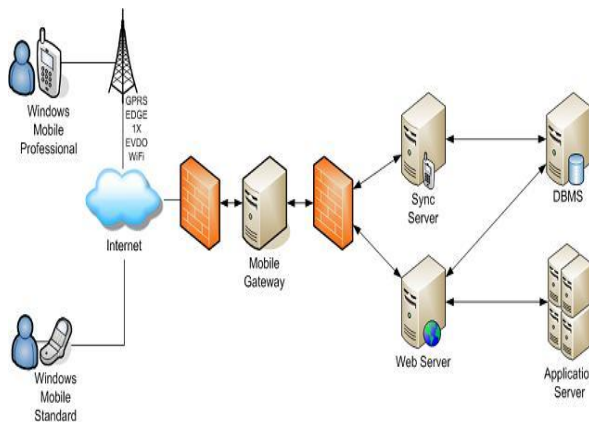


Figure 2. Web Application Architecture

3. Security Advances in Web Apps

3.1. X-Frame Options (XFO)

X-Frame Options is developed to offer the security protection against framing threats that include Click Jacking threats.

X-Frame Options in practice of two parts:

- **Determining a policy:** The control and notification of this part for end user's browser is done by web application developer through HTTP response.
- **Imposing the policy:** The browser fragments the policy given by web application and imposes it appropriately on the client side.

3.2. HTTP Strict Transport Security (HSTS)

It was developed to securely establish the browsing session. HSTS always use a secure protocol i.e. HTTPS which allows web developer and administrator to indicate the browser for initializing a connection to web application. It terminates the HTTP request when it encounters any circumstances like MiTM attack. And there are also as many security threats and the relevant measures emerging and have been developed.

4. Web Origin (Web Yesterday)

The description concern with web apps during the time duration from 1995 to 2001 is elaborated in following considerate issues:

4.1. Customers Seekness

The most of the web developers (designers as well as programmers) were praised to acquired an acceptability descent web existence on the business plan, mainly consisting not all important concept but provided or availed by huge financial support.

It was dealing as first intending idea on market, being available and supplying E-Commerce at all costs.

4.2. How cost of build web apps

Based on static HTML pages ruled out the day, web applications were that time not in fashion for common purposes. For the server-sided scripting we used the most common languages were PERL or C for same. The scripting does not evolve out any beneficial or resolving any particular issue appropriately, so it was worst to maintain with consistency and are rarely taken as an applications.

The concept building is not lacking that but it was lacking the competence in between so called web designers.

By the time, the complexity of the technologies keep on increasing exponentially as norms given were not suffice to bound.

5. Today's Web

Today's web applications are depend on the Customer's requirements.

5.1 Customer's Desires

It retrieves the attention of investors while they concern with the web oriented project.

The big demands are avoided and are result as termination as it is running over time boundations or over estimation of the price claimed.

6. Web Development

Underlying the propriety developments of the past, web building movements are still towards standardization. Microsoft introduced its wining browsers for the computation on windows system. While Mozilla Gecko being so popular in linux world and even corporate by Netscape into its contemporary generation. For server end, the application oriented development is carrying out effectively, as object oriented framework starts with on lined scripts. The diverse languages chosen for its enhancement focused on mainly on PHP, Python, C++, Cold Fusion and Microsoft's .NET Framework.

6.1. Conclusion

The changed scenario brought up lots of extensive features and support for web designers but diversity with consistency still remain burden. The server side is always considerate to make the favourable outcomes and which is not only because of homogeneous environment but took analytical observations from the existing traditional standalone applications development. As the only some of the languages choose for better development of effective tools is engine still associated with its strengths and weakness.

7. Application Development

The well treated applications suited for its feasibility underlying all the previously set up requirements are fulfilled, regarding the estimated cost and delivery time are only 10%.

7.1. Issue Setup:

Reside the main issue keep on changing two human interactions, the developer and the customer and they made the circumstances much more crucial and critical. Both must have predict the way to develop application strategy but often hindered by efficient and beneficial software development.

7.2. Business Plan:

Many of the projects are not success indeed they lacking a well planned business strategy. Transparency leads to the ensure success of any project is one of the major perception of most of the project managers. But exactly it is for E-commerce where no need of finding target seekers and niche, where the project could develop and grow.

The well framed out budgetary and the scope of the project provided with restrictions of the project for

technology and marketing results in reduction of risks even further.

8. Estimate Cost

8.1. Scheduled

The time is much more and crucial parameter for the development of any application deploying with many other restrictions and dependencies. The schedule task is well specified regarding the ordered way of occurrence.

8.2. Cost

The equivalent parameter of time is cost estimation with same significance and intervening substitute and should have minimized for any proposing project development. The cost specific associated with hidden variable does not settled previously and which is turned into calamity. Initially project finds cheap during development but may become expensive for maintenance.

9. Widely used Web Application development technology

- **Option 1:** ASP.NET/ASP.NET MVC

Vendor: Microsoft

Environment: Visual Studio

Language: C#

- **Option 2:** Silverlight

Vendor: Microsoft

Environment: Visual Studio

Language: C#

- **Option 2:** Google Web Toolkit

Vendor: Google

Environment: Eclipse

Language: Java

10. Merits

- **Zero Install:** All PCs have preinstalled browser.

- **Cost Efficient:** Free from paper work.
- **Centralised Data** is secure and easy to backup.
- **Quick and easy** updates.
- **Accessible from anywhere in the world.**
- **Availability:** “24 X 7”.
- **Low spec PCs or Smartphone** can be used.
- **Direct access** to latest information.
- **Always up to date.**

11. Demerits

- Slower execution as run over the Internet.
- Availability of the Internet is not possible all the time.
- Being more complex so they take long time to develop.
- May not be compatible on every browser.
- Vulnerable to cyber attacks.

12. References

[1] http://en.wikipedia.org/wiki/Web_application

[2] <http://www.pssuk.com/AdvantagesWebApplications.htm>

[3] Study paper Web Application Development by Dominik Wittenback.

