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A Brief Review on World Wide Web

Bosubabu Sambana, MCA, M.Tech
Assistant Professor,
Dept of Computer Science & Engineering,
Simhadhri Engineering College, Visakhapatnam, AP-531001, India.

Abstract:
The World Wide Web has succeeded in large part because its software architecture has been designed to meet the needs of an Internet-scale distributed hypermedia system The Web has been iteratively developed over the past ten years through a series of modifications to the standards that define its architecture. In order to identify those aspects of the Web that needed improvement and avoid undesirable modifications, a model for the modern Web architecture was needed to guide its design, definition, and deployment. In this paper we discussed already existing mechanism how to work entire Internet process and we proposed to new methods is rapidly changes in Web. Evaluate all error correction methods how to work in efficient way using Internet Architecture for common man is used in fingertips.

Keywords:

WWW, Internet , Future Internet Archeture, Internet of Things,ARPANET ,TCP/IP Protocols , OSI Layers

1. INTRODUCTION:

This paper gives an overview of the history, the current state and possible future directions for the World Wide Web. The Web is simply defined as the universe of global network-accessible information. It is an abstract space with which people can interact, and is currently chiefly populated by interlinked pages of text, images and animations, with occasional sounds, three dimensional worlds, and videos. Its existence marks the end of an era of frustrating and debilitating incompatibilities between computer systems.

The explosion of advisability and the potential social and economical impact has not passed unnoticed by a much larger community than has previously used computers. The commercial potential in the system has driven a rapid pace of development of new features, making the maintenance of the global interoperability which the Web brought a continuous task for all concerned. At the same time, it highlights a number of research areas whose solutions will become more and more pressing, which we will only be able to mention in passing in this paper. Let us start, though, as promised, with a mention of the original goals of the project, conceived as it was as an answer to the author's personal need, and the perceived needs of the organization and larger communities of scientists and engineers, and the world in general.

The World Wide Web has involved from an academic and Technical, Scientific network to a board of commercial platform. It has become an integral and indispensable part of our daily life, economic operation, and need for our society. Many technical and non-technical challenges have emerged during this web page transactions in Internet layer. Technically, the current Internet was design principle. Its containing success has been hindered by more sophisticated network attacks due to the lack of security embedded in the original architecture.web is a clean-slate architecture design. Web is one of the part of Internet. Internet is like a Ocean. In this manner Internet is using gateway through web browser. Browser is created by using software programming languages. The current web is owned and controlled by multiple stakeholders and their network risk of experimentation.

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Future Web research efforts may be classified based on their technical and geographical diversity. While some other projects target at individual topics. Research program specifically aimed at the design future Internet have been setup different countries around globe.

2. BACKGROUND:

The bellow Descriptions are expressed in detailed in inner points about main content.

2.1. Internet:

He Internet itself is a global, interconnected network of computing devices. This network supports a wide variety of interactions and communications between its devices.

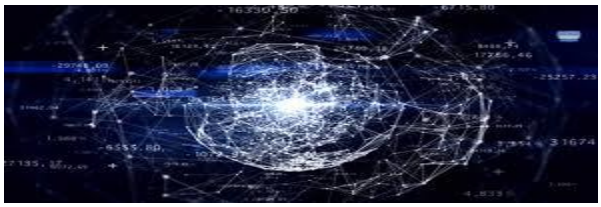

Figure 1: Internal Design of Internet

2.2. World Wide Web:

The World Wide Web (WWW) is an open source information space where documents and other web resources are identified by URLs, interlinked by hypertext links, and can be accessed via the Internet.

Figure 2: Universal resource Locator

2.3 Authentication Protocol:

a legal user can access its own data fields, only the authorized partial or entire data fields can be identified by the legal user, and any forged or tampered data fields cannot deceive the legal user.

2.4 Internet Protocol:

The Internet protocol, or IP for short, is the underlying system f communication for all data sent across the Internet. It is a simple protocol for one computer to send packers of data to another. Suitable example

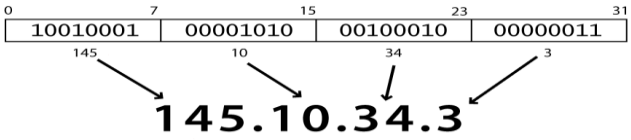

Figure 3: Example of IP Address

2.4.1 Types of IP Class Network
2.4.2 IP Address
2.4.3 Secure gateway Connected Nodes

TCP Port	Services
21	File transfer (FTP)
22	Secure shell(SSH)
25,110	EMAIL (SMTP , POP3)
80	Web (HTTP)
443	Secure Web(HTTPS)
993 , 995	Secure mail

Table 1: TCP Port and Services

2.5 Web authoring:

A category of software that enables the user to develop a Web site in a desktop publishing format. The software will generate the required HTML coding for the layout of the Web pages based on what the user designs. Typically, the user can toggle back and forth between the graphical design and the HTML code and make changes to the Web page in either the design of the accompanying code.To design and create a Web site, from writing the site's underlying code to writing the text to managing the site's upkeep.

3.RELATEDWORK:

The WWW is one set of software services running on the Internet. The World Wide Web is a subset of these interactions and supports websites and URIs.

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In its mature form, Nelson saw the Xanadu project as a global literary system, with its vast "docuverse," as the key to widely distributed access to and sharing of information. In many respects, Nelson's vision may be close to realization in the maturation of the hypertext model within the emerging WWW.The WWW project was initiated in 1989, as an in house personal hypertext information system, at the European Particle Physics Laboratory (**CERN**) in Geneva, Switzerland. According to **Berners-Le**e, the principal architect, and colleagues, the "World Wide Web was developed to be a pool of human knowledge, which would allow collaborators in remote sites to share their ideas and all aspects of a common project.

" I" Much of the present development of the WWW project and related technology is actively supported by the World Wide Web Consortium (W3C) and the Internet Engineering Task Force (IETF). The W3C, formed by CERN, the French National Institute for Research in Computers and Automation (INRIA), and the Massachusetts Institute of Technology (MIT), exists to promote the development of common standards for the WWW and serve as a repository of related data, information, and software applications.""" The 1ETF is a forum for researchers, network designers, and vendors to identify and propose solutions to operational or technical problems related to the Internet.' The WWW initiative was developed with a client-server- distributed computing architecture as its delivery mechanism.

The assumptions of the project were:

- The idea of a "boundless" information space in which all items have a referent that aids directly in the item's retrieval.
- An addressing system, the Uniform Resource Identifier (URl), created and implemented to make this space possible regardless of the underlying protocol necessary for transport or communications.
- A network communications protocol, the Hypertext Transfer Protocol (HTTP), to provide network performance and services for WWW servers.
- The Hypertext Markup Language (HTML), which would be understood by every WWW client and used to transmit text, menus, and on-line help information.
- A collection of documents and an associated body of data, available on the Internet that would employ these elements.

Some Common Default Values and Formats for Each Uniform Resource Locator (URL) Scheme

Protocol*	URL Format
FTP	ftp:(/user:password@host:port/path
HTTP	http://host:port/path?searchpart
Gopher	gopher://host:port.path
Telnet	telnet://user:password@host:port
Mail to	user_name@host
File	file://host/path

*FTP = File Transfer Protocol;

HTTP = Hypertext Transfer Protoco1.

Table 2: Protocol and URL Forms

	Internet	WWW
Estimated year of Origin	1969, though opening of the network to commercial interests began only in 1988	1993
Name of the first version	ARPANET	NSFnet
Comprises	Network of Computers, copper wires, fiber-optic	Files, folders & documents stored in various computers

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	Internet	WWW
	cables & wireless networks	
Governed by	Internet Protocol	Hyper Text Transfer Protocol
Dependency	This is the base, independent of the World Wide Web	It depends on Internet to work
Nature	Hardware	Software
Creator	No such Creator	It was created by Tim Berners lee in 1992

Table 3 : Internet versus WWW comparison chart

Uniform Resource Identifier:

The idea of the WWW is predicated on the concept of a "boundless" information space populated by a collection of data objects linked via a communication protocol. The URI, as defined in the IETF specification document RFC-1630, is a convention that is used to identify the "registered name spaces and addresses" of a given resource object (documents, images, etc.) on the Web. At present, two forms of URIS exist: the Uniform Resource Locator (URL) and the Uniform Resource Name (URN). The more commonly used URL is a form of URI that, through the use of an addressing protocol, provides an access method for retrieving a given resource on the WWW. For example, one could use the File Transfer Protocol (FTP) to retrieve a file from a WWW server. The URN is an evolving schema for naming resources that may be used to map a specific name to one or more resources.62 URLs have been in use on the WWW since 1990 and went on the Internet standards track (RFC 1738) in 1994.40 The syntax of the URL follows the Common Internet Scheme Syntax (CISS) and is as follows:**<access protocol>://<host>/<path>**For example: the URL for the home page of the University of Pittsburgh Section of Medical Informatics WWW server is: http://www.smi.med.pitt.edul/welcome.html. In this case, http is the access protocol, www.smi.med.pitt.edu refers to the host, and welcome.html refers to the host directory path to the servers home page. In its present form, the URL provides the actual location of a given link. Every WWW resource page has a unique URL.

Hypertext Transfer Protocol:

HTTP is the client-server communication protocol unique to the WWW and was designed to be the communication vehicle for the transfer of information between the WWW client and the server.62 HTTP is a simple request-response protocol allowing for communication between the WWW client and a given HTTP server. One HTTP server can serve information to a multitude of clients. HTTP provides the user with an efficient means to traverse the WWW and retrieve data objects or items relatively quickly and from disparate servers. HTTP 0.9 was initially implemented in 1991. HTTP/1.0 is in the draft stage as an Internet standard.

All HTTP messages incorporate the Multipurpose Internet Mail Extension (MIME) standard for the identification and transfer of data in a variety of formats as defined in the RFC 1341.37 Plain-text, hypertext, image, audio, and video data can be transferred using this protocol. HTTP is a stateless protocol that limits a given client to one request per connection. In the stateless model, a client connects to the server, makes a request, receives a response, and disconnects. There is no record of multiple transactions inherent in the protocol. An analogous view of this model would be the contrast between sending a letter and making a telephone call. In this instance, the telephone call would be connection-oriented, requiring a physical "connection" (i.e., an open line) between the caller and the called party.

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However, in the case of a letter, once it is mailed, the connection is complete. The stateless protocol promotes efficient use of server resources. In this model, the server uses its resources for a limited time and only when requested.

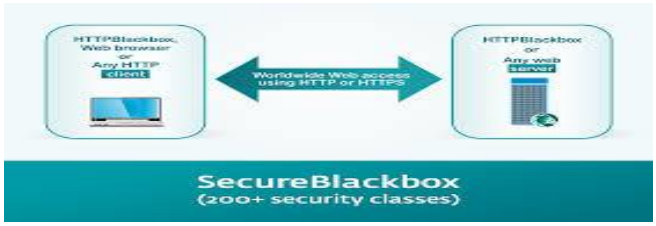
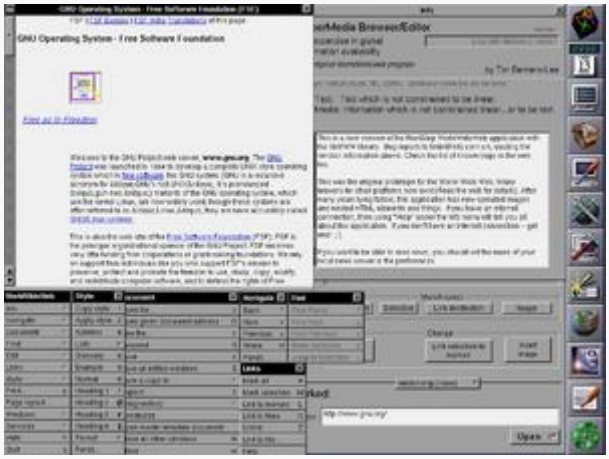


Figure 4: Data Transfer in Web

WorldWideWeb



WorldWideWeb, c. 1993

Developer(s)	Tim Berners-Lee for CERN
Initial release	December 20, 1990; 25 years ago
Last release	0.18 (January 14, 1994; 21 years ago)
Preview release	none (no public release) ((n/a))
Written in	Objective-C
Operating system	NeXTSTEP
Available in	English
Type	Web browser, web authoring tool
License	Public domain
Website	www.w3.org/People/Berners-Lee/WorldWideWeb.html

Table 4: Overview of WWW

Data Security and the WWW:

WWW development is being increasingly driven by the commercial sector. As more and more companies do business on the Internet, the problems of implementing secure financial transactions and ensuring data protection assume an increasing importance. Health care applications on the WWW that involve confidential patient information must also contend with similar security issues and will probably inherit many of the solutions currently being defined for use in the business sector. A detailed discussion of Internet security is beyond the scope of this paper, and we will limit our discussion to issues specific to the www. There are two major approaches to securing WWW information systems. The first strategy involves protecting individual servers and network sites.

For example: many commercial WWW servers allow the administrator to restrict connections from clients at specific IP addresses or domains. If one is setting up a WWW-based information system for use within a specific institution or by users at predefined sites, this feature can be very helpful in excluding potential intruders. ‘However, for WWW services open to all comers, this strategy is of limited utility. In general, administrators usually rely on network perimeter security schemes such as firewalls31 (gateways controlling data communications between local networks and the Internet) and user authentication. Even if the WWW server is secure, the data transmitted between server and clients using HTTP is

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not encrypted or protected in any way. Using freely available network software, unscrupulous individuals could acquire and alter or eavesdrop on data transmissions containing sensitive medical or financial information. The second major approach to ensuring WWW security therefore focuses on securing client-server transactions to prevent "data snooping," ensure data integrity, and authenticate users. Security will be a major issue in determining the feasibility of WWW-based clinical information systems. The emerging standard for secure channels and document encryption on the WWW should help provide adequate protection for sensitive information.Berners-Lee writes that the "Web's major goal was to be a shared information space through which people and machines could communicate." Hypermedia was chosen as the user interface because of its simplicity and generality: the same interface can be used regardless of the information source, the flexibility of hypermedia relationships (links) allows for unlimited structuring, and the direct manipulation of links allows the complex relationships within the information to guide the reader through an application. Since information within large databases is often much easier to access via a search interface rather than browsing, the Web also incorporated the ability to perform simple queries by providing user-entered data to a service and rendering the result as hypermedia.

WWW Application Domain Requirements:

The challenge was to build a system that would provide a universally consistent interface to this structured information, available on as many platforms as possible and incrementally deployable as new people and organizations joined the project.

1. Low Entry-barrier
2. Extensibility
3. Distributed Hypermedia
4. Internet-scale

3.1 Literature survey:

It involved many researching previous studies that were conducted in the area of authentication system , as well as reviewing what underlining existing system techniques using current existing authenticating systems to use.

Machine interaction with the web:

To date, the principle machine analysis of material on the web has been its textual indexing by search engines. Search engines have proven remarkably useful, in that large indexes can be searched very rapidly, and obscure documents found. They have proved to be remarkably useless, in that their searches generally take only vocabulary of documents into account, and have little or no concept of document quality, and so produce a lot of junk. Below we discuss how adding documents with defined semantics to the web should enable much more powerful tools.

Some promising new ideas involve analysis not only of the web, but of people's interaction with it, to automatically reap more idea of quality and relevance. Some of these programs, sophisticated search tools, have been described as "agents" (because they act on behalf of the user), though the term is normally used for programs that are actually mobile. There is currently little generally deployed use of mobile agents. Mobile code is used to create interesting human interfaces for data (such as Java "applets"), and to bootstrap the user into a new distributed applications. Potentially, mobile code has a much greater impact on the software architecture of software on client and server machines. However, without a web of trust to allow mobile programs (or indeed fixed web-searching programs) to act on a use's behalf, progress will be very limited.

I use the insights garnered from the survey and classification of architectural styles for network-based hypermedia systems to hypothesize methods for developing an architectural style that would be used to guide the design of improvements for the modern Web architecture.

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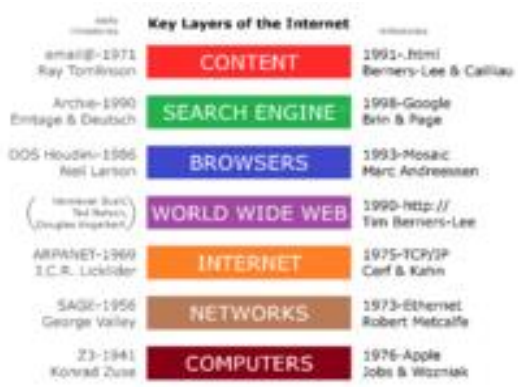

Figure 5: Layers of Internet

The following example demonstrates the functioning of a web browser when accessing a page at the URLhttp://www.example.org/home.html. The browser resolves the server name of the URL (www.example.org) into an Internet Protocol address using the globally distributed Domain Name System (DNS). This lookup returns an IP address such as 203.0.113.4. The browser then requests the resource by sending an HTTP request across the Internet to the computer at that address. It requests service from a specific TCP port number that is well known for the HTTP service, so that the receiving host can distinguish an HTTP request from other network protocols it may be servicing. The HTTP protocol normally uses port number 80. The content of the HTTP request can be as simple as two lines of text:

```
GET /home.html HTTP/1.1
Host: www.example.org
```

The computer receiving the HTTP request delivers it to web server software listening for requests on port 80. If the web server can fulfill the request it sends an HTTP response back to the browser indicating success:

```
HTTP/1.0 200 OK
Content-Type: text/html; charset=UTF-8
```

followed by the content of the requested page. HyperText Markup Language (HTML) for a basic web page might look like this:

```
<html>
 <head>
<title> The World Wide Web </title>
 </head>
 <body>
  <p>The World Wide Web, abbreviated as WWW and commonly known ...</p>
 </body>
</html>
```

The web browser parses the HTML and interprets the markup (<title>, <p> for paragraph, and such) that surrounds the words to format the text on the screen. Many web pages use HTML to reference the URLs of other resources such as images, other embedded media, scripts that affect page behavior, and Cascading Style Sheets that affect page layout. The browser makes additional HTTP requests to the web server for these other Internet media types. As it receives their content from the web server, the browser progressively renders the page onto the screen as specified by its HTML and these additional resources.

Web security:

For criminals, the web has become the preferred way to spread malware. Cybercrime on the web can include identity theft, fraud, espionage and intelligence gathering. Web-based vulnerabilities now outnumber traditional computer security concerns, and as measured by Google, about one in ten web pages may contain malicious code. Most web-based attacks take place on legitimate websites, and most, as measured by Sophos, are hosted in the United States, China and Russia. The most common of all malware threats is SQL injection attacks against websites. Through HTML and URIs, the Web was vulnerable to attacks like cross-site scripting (XSS) that came with the introduction of JavaScript and were exacerbated to some degree by Web 2.0 and Ajax web design that favors the use of scripts.

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Today by one estimate, 70% of all websites are open to XSS attacks on their users. Phishing is another common threat to the Web. "SA, the Security Division of EMC, today announced the findings of its January 2013 Fraud Report, estimating the global losses from phishing at $1.5 Billion in 2012".Two of the well-known phishing methods are Covert Redirect and Open Redirect.Proposed solutions vary to extremes. Large security vendors like McAfee already design governance and compliance suites to meet post-9/11 regulations, and some, like Finjan have recommended active real-time inspection of code and all content regardless of its source. Some have argued that for enterprise to see security as a business opportunity rather than a cost center, "ubiquitous, always-on digital rights management" enforced in the infrastructure by a handful of organizations must replace the hundreds of companies that today secure data and networks. Jonathan Zittrain has said users sharing responsibility for computing safety is far preferable to locking down the Internet.

Privacy:

Every time a client requests a web page, the server can identify the request's IP address and usually logs it. Also, unless set not to do so, most web browsers record requested web pages in a viewable history feature, and usually cache much of the content locally. Unless the server-browser communication uses HTTPS encryption, web requests and responses travel in plain text across the Internet and can be viewed, recorded, and cached by intermediate systems.When a web page asks for, and the user supplies, personally identifiable information—such as their real name, address, e-mail address, etc.—web-based entities can associate current web traffic with that individual. If the website uses HTTP cookies, username and password authentication, or other tracking techniques, it can relate other web visits, before and after, to the identifiable information provided. In this way it is possible for a web-based organisation to develop and build a profile of the individual people who use its site or sites. It may be able to build a record for an individual that includes information about their leisure activities, their shopping interests, their profession, and other aspects of their demographic. These profiles are obviously of potential interest to marketers, advertisers and others. Depending on the website's terms and conditions and the local laws that apply information from these profiles may be sold, shared, or passed to other organisations without the user being informed. For many ordinary people, this means little more than some unexpected e-mails in their in-box, or some uncannily relevant advertising on a future web page. For others, it can mean that time spent indulging an unusual interest can result in a deluge of further targeted marketing that may be unwelcome. Law enforcement, counter terrorism and espionage agencies can also identify, target and track individuals based on their interests or proclivities on the Web.

Social networking sites try to get users to use their real names, interests, and locations. They believe this makes the social networking experience more realistic and therefore more engaging for all their users. On the other hand, uploaded photographs or unguarded statements can be identified to an individual, who may regret this exposure. Employers, schools, parents, and other relatives may be influenced by aspects of social networking profiles that the posting individual did not intend for these audiences. On-line bullies may make use of personal information to harass or stalk users. Modern social networking websites allow fine grained control of the privacy settings for each individual posting, but these can be complex and not easy to find or use, especially for beginners.

Photographs and videos posted onto websites have caused particular problems, as they can add a person's face to an on-line profile. With modern and potential facial recognition technology, it may then be possible to relate that face with other, previously anonymous, images, events and scenarios that have been imaged elsewhere. Because of image caching, mirroring and copying, it is difficult to remove an image from the World Wide Web.

Standards:

Many formal standards and other technical specifications and software define the operation of different aspects of the World Wide Web, the Internet, and computer information exchange.

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Many of the documents are the work of the World Wide Web Consortium (W3C), headed by Berners-Lee, but some are produced by the Internet Engineering Task Force (IETF) and other organizations.Usually, when web standards are discussed, the following publications are seen as foundational:

- Recommendations for markup languages, especially HTML and XHTML, from the W3C. These define the structure and interpretation of hypertext documents.
- Recommendations for stylesheets, especially CSS, from the W3C.
- Standards for ECMAScript (usually in the form of JavaScript), from Ecma International.
- Recommendations for the Document Object Model, from W3C.

Additional publications provide definitions of other essential technologies for the World Wide Web, including, but not limited to, the following:

- Uniform Resource Identifier (URI), which is a universal system for referencing resources on the Internet, such as hypertext documents and images. URIs, often called URLs, are defined by the IETF's RFC 3986 / STD 66: Uniform Resource Identifier (URI): Generic Syntax, as well as its predecessors and numerous URI scheme-defining RFCs;
- Hypertext Transfer Protocol (HTTP), especially as defined by RFC 2616: HTTP/1.1 and RFC 2617: HTTP Authentication, which specify how the browser and server authenticate each other.

Accessibility:

There are methods for accessing the Web in alternative mediums and formats to facilitate use by individuals with disabilities. These disabilities may be visual, auditory, physical, speech related, cognitive, neurological, or some combination. Accessibility features also help people with temporary disabilities, like a broken arm, or aging users as their abilities change. The Web receives information as well as providing information and interacting with society.

The World Wide Web Consortium claims it essential that the Web be accessible, so it can provide equal access and equal opportunity to people with disabilities. Tim Berners-Lee once noted, "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect." Many countries regulate web accessibility as a requirement for websites.[62] International cooperation in the W3C Web Accessibility Initiative led to simple guidelines that web content authors as well as software developers can use to make the Web accessible to persons who may or may not be using assistive technology.

Internationalization:

The W3C Internationalization Activity assures that web technology works in all languages, scripts, and cultures. Beginning in 2004 or 2005, Unicode gained ground and eventually in December 2007 surpassed both ASCII and Western European as the Web's most frequently used character encoding. Originally RFC 3986 allowed resources to be identified by URI in a subset of US-ASCII. RFC 3987 allows more characters—any character in the Universal Character Set—and now a resource can be identified by IRI in any language.

Statistics:

Between 2005 and 2010, the number of web users doubled, and was expected to surpass two billion in 2010. Early studies in 1998 and 1999 estimating the size of the Web using capture/recapture methods showed that much of the web was not indexed by search engines and the Web was much larger than expected. According to a 2001 study, there was a massive number, over 550 billion, of documents on the Web, mostly in the invisible Web, or Deep Web. A 2002 survey of 2,024 million web pages determined that by far the most web content was in the English language: 56.4%; next were pages in German (7.7%), French (5.6%), and Japanese (4.9%). A more recent study, which used web searches in 75 different languages to sample the Web, determined that there were over 11.5 billion web pages in the publicly indexable web as of the end of January 2005. As of March 2009, the indexable web contains at least 25.21

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billion pages. On 25 July 2008, Google software engineers Jesse Alpert and Nissan Hajaj announced that Google Search had discovered one trillion unique URLs. As of May 2009, over 109.5 million domains operated. Of these, 74% were commercial or other domains operating in the generic top-level domain com.Statistics measuring a website's popularity are usually based either on the number of page views or on associated server 'hits' (file requests) that it receives.

Speed issues:

Frustration over congestion issues in the Internet infrastructure and the high latency that results in slow browsing has led to a pejorative name for the World Wide Web: the World Wide Wait. Speeding up the Internet is an ongoing discussion over the use of peering and QoS technologies. Other solutions to reduce the congestion can be found atW3C. Guidelines for web response times are:

- 0.1 second (one tenth of a second). Ideal response time. The user does not sense any interruption.
- 1 second. Highest acceptable response time. Download times above 1 second interrupt the user experience.
- 10 seconds. Unacceptable response time. The user experience is interrupted and the user is likely to leave the site or system.

Web caching:

A web cache is a server computer located either on the public Internet, or within an enterprise that stores recently accessed web pages to improve response time for users when the same content is requested within a certain time after the original request.Most web browsers also implement a browser cache for recently obtained data, usually on the local disk drive. HTTP requests by a browser may ask only for data that has changed since the last access. Web pages and resources may contain expiration information to control caching to secure sensitive data, such as in online banking, or to facilitate frequently updated sites, such as news media. Even sites with highly dynamic content may permit basic resources to be refreshed only occasionally. Web site designers find it worthwhile to collate resources such as CSS data and JavaScript into a few site-wide files so that they can be cached efficiently. Enterprise firewalls often cache Web resources requested by one user for the benefit of many. Some search engines store cached content of frequently accessed websites.

Distributed Hypermedia:

Hypermedia is defined by the presence of application control information embedded within, or as a layer above, the presentation of information. Distributed hypermedia allows the presentation and control information to be stored at remote locations. By its nature, user actions within a distributed hypermedia system require the transfer of large amounts of data from where the data is stored to where it is used. Thus, the Web architecture must be designed for large-grain data transfer. The usability of hypermedia interaction is highly sensitive to user-perceived latency: the time between selecting a link and the rendering of a usable result. Since the Web's information sources are distributed across the global Internet, the architecture needs to minimize network interactions (round-trips within the data transfer protocols).

4. Existing System Problem:

Working groups within the Internet Engineering Taskforce were formed to work on the Web's three primary standards: URI, HTTP, and HTML. The charter of these groups was to define the subset of existing architectural communication that was commonly and consistently implemented in the early Web architecture, identify problems within that architecture, and then specify a set of standards to solve those problems. This presented us with a challenge: how do we introduce a new set of functionality to an architecture that is already widely deployed, and how do we ensure that its introduction does not adversely impact, or even destroy, the architectural properties that have enabled the Web to Succeed?

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5. PROPOSED WORK :

My approach is to use an architectural style to define and improve the design rationale behind the Web's architecture, to use that style as the acid test for proving proposed extensions prior to their deployment, and to deploy the revised architecture via direct involvement in the software development projects that have created the Web's infrastructure. The main objective of this work is to propose a Ten (10) consecutive steps leading towards a working easiest manner in Evaluate all error correction methods how to work in efficient way using Internet Architecture is

Step 1: Innovations in various aspect of the Internet

Step 2: Collaborative projects putting multiple innovations into

an overall networking architecture

Step 3: Testbeds for real – scale experimentation

Step 4: Logical and inner mechanism is implementation

Step 5: To access through Captch based security system

Step 6: Avoid errors in dijestusted using validation mechanism

Step 7: Spam linked correction based hyperlinks

Step 8: modify and ubiquities access to network

Step 9: Functional and non-Functional based paradigms

Step 10: Control and management plane oriented operations

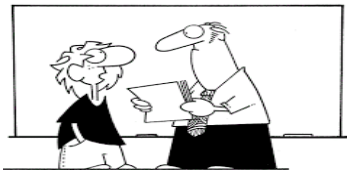
- The design rationale behind the WWW architecture can be described by an architectural style consisting of the set of constraints applied to the elements within the Web architecture.

- Constraints can be added to the WWW architectural style to derive a new hybrid style that better reflects the desired properties of a modern Web architecture.

- Proposals to modify the Web architecture can be compared to the updated WWW architectural style and analyzed for conflicts prior to deployment.

Finally, the updated Web architecture, as defined by the revised protocol standards that have been written according to the guidelines of the new architectural style, is deployed through participation in the development of the infrastructure and middleware software that make up the majority of Web applications. This included my direct participation in software development for the Apache HTTP server project and the libwww-perl client library, as well as indirect participation in other projects by advising the developers of the W3C libwww and jigsaw projects, the Netscape Navigator, Lynx, and MSIE browsers, and dozens of other implementations, as part of the IETF discourse.

6. CONCLUSION:



The Web, like the Internet, is designed so as to create the desired "end to end" effect, whilst hiding to as large an extent as possible the intermediate machinery which makes it work. If the law of the land can respect this, and be couched in an "end to end" terms, such that no government or other interference in the mechanisms is legal that would break the end to end rules, then it can continue in that way. If not, engineers will have to learn the art of designing systems so that the end to end functionality is guaranteed whatever happens in between. What TCP did for reliable delivery (providing it end-to-end when the underlying network itself did not provide it) , cryptography is doing for confidentiality.

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Further protocols may do this for information ownership, payment, and other facets of interaction which are currently bound by geography. For the information space to be a powerful place in which to solve the problems of the next generations, its integrity, including its independence of hardware, packet route, operating system, and application software brand, is essential. Its properties must be consistent, reliable, and fair, and the laws of our countries will have to work hand in hand with the specifications of network protocols to make that so.

FUTERE WORK:

Future directions:

Having summarized the origins of the Web, and its current state, we now look at some possible directions in which developments could take it in the coming years. One can separate these into three long term goals. The first involves the improvement of the infrastructure, to provide a more functional, robust, efficient and available service. The second is to enhance the web as a means of communication and interaction between people. The third is to allow the web, apart from being a space browse able by humans, to contain rich data in a form understandable by machines, thus allowing machines to take a stronger part in analyzing the web, and solving problems for us.

Infrastructure.

When the web was designed, the fact that anyone could start a server and it could run happily on the Internet without regard to registration with any central authority or with the number of other HTTP servers which others might be running was seen as a key property, which enabled it to "scale". Today, such scaling is not enough. The numbers of clients is so great that the need is for a server to be able to operate more or less independently of the number of clients. The are cases when the readership of documents is so great that the load on severs becomes quite unacceptable. Further, for the web to be a useful mirror of real life, it must be possible for the emphasis on various documents to change rapidly and dramatically. If a popular newscast refers by chance to the work of a particular schoolchild on the web, the school cannot be expected to have the resources to serve copies of it to all the suddenly interested parties.

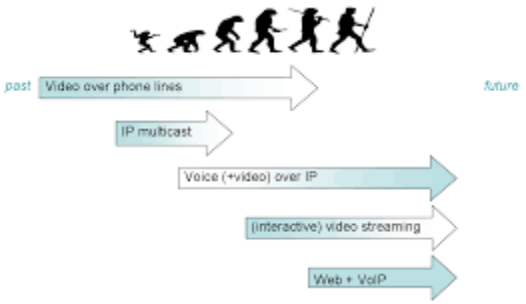

Figure: Technological changes in daily Life

Another cause for evolution is the fact that business is now relying on the Web to the extent that outages of servers or network are not considered acceptable. An architecture is required allowing fault tolerance. Both these needs are addressed by the automatic, and sometimes preemptive, replication of data. At the same time, one would not wish to see an exacerbation of the situation suffered by Usenet News administrators who have to manually configure the disk and caching times for different classes of data. One would prefer an adaptive system which would configure itself so as to best use the resources available to the various communities to optimize the quality of service perceived. This is not a simple problem. It includes the problems of

- Categorizing documents and users so as to be able to treat them in groups;
- Anticipating high usage of groups of documents by groups of users;
- Deciding on optimal placement of copies of data for rapid access;
- An algorithm for finding the cheapest or nearest copy, given a URL.

Resolution of these problems must occur within a context in which different areas of the infrastructure are funded through different bodies with different priorities and policies. These are some of the long term concerns about the infrastructure, the basic architecture of the web. In the shorter term, protocol designers are increasing the efficiency of HTTP communication, particularly for the case of a user whose performance limiting item is a telephone modem. .

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Authors' Profiles:

Bosubabu Sambana working with as an Assistant Professor in Simhadhri Engineering College, Visakhapatnam. He is completed Master Degree in Computer Applications and Master Degree in Computer Science & Engineering from Jawaharlal Nehru Technological University – Kakinada, Pursing Master of Science in Mathematics, Andhra University, Andhra Pradesh, India. He has 4 years good teaching experience and having a good Knowledge on Space Science & Technologies, Future Internet Architecture, Cloud Computing, Internet of Things/Services/Data, Computer Network and Hacking along with Computer Science Subjects. He is Published 4 Research Papers in various reputed International Journals and Magazines. He is the member of NASA, INTERNET SCOCIETY, W3C, MECS-PRESS, IAENG, IAAE and IJECSE.

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