# INTERNET BASED LIBRARY SERVICES AND CLOUD COMPUTING

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**ABSTRACT**: - *The use of information technology in the library is prime necessary in virtual environment. The main aim of the study is to examine the use of internet based resources and services library and cloud computing. The study discuss to know the awareness, utilization, importance of various internet services-describes the different type of electronic resources available and it covers all aspects of internet and cloud computing also advantages and disadvantages.*

**KEY WORDS** – ***Internet, Network Based Services, Cloud Computing.***

**INTRODUCTION:** Internet is a computer network consisting of a world wide network of computers. It is a network of Networks. It is a global set of connection of commuters.

The Internet has made impact on the academic activities with faculty, researchers and students, with the advent of internet, a significant transition can be seen in their approach and the way they see information and learning activities. It has tremendously improved communication and interaction among scientific research community and enables them to access a vast range of latest information.

The 21st century the internet therefore creates and excellent academic environment demands the librarian to becomes a resource-sharing librarian whose resources don't have boundaries i.e.(Local ,National, International) in future Academic colleges, Institutions library networks will play major role, as partners in the global networking of information utility, and co-operative computer network it is aimed at linking library to library, business to business, individual to individual and organization to organization.

In the present scenario many communication links between library and users are now based on LAN and INTERNET instead of personal contact. Due to this communication links in university libraries are gibing more emphasis on e-Information collection, e-information based services and wing information technologies. Today the advent of information technology has resulted in reducing the size of libraries, in fact these smaller modern libraries are rich potential of information.

In the fast emerging and ever-growing information explosion it is very difficult to retrieve the required information without wasting time. Recent advances in the field of information technology contribute significantly to improve the services of libraries.

Cloud computing is one solution for this Cloud computing is Outsourcing of the services in a networked computer systems using Internet. Cloud computing refers to the networked computers that deliver of computing resources over internet. Cloud is a metaphor for the internet. Cloud computing is a phrase used to describe the act of storing, accessing and sharing data, application and computing power in cyberspace (Vatnal and Manjunath 2014). Cloud services allow individuals and business sectors to use software and hardware components that are managed by third party. Users have to pay for the services they get. Some of the Cloud Computing service providers are Amazon, Yahoo, Google, Sales force, Desktop Two, Zimdesk. Some of the cloud computing services adopted by public are; You Tube which is used to upload and share Videos, Slide share to host the presentations, Google Docs for collaborative works and web based Email services like Gmail for communication.

**NETWORK BASED CD-ROM SERCH SERVES**

The library offers networked –based CD-ROM search services from the CD-ROM database subscribed in the central library. Most of the databases have now been transferred to ERL Technology. A CDNET system was installed in the library that enables searching of CD-ROM databases on the campus intranet are hyperlink to the CD-ROM databases listed below are subscribed in the central library, which are now available through the ERL interface also.

**RESOURCE SHARING CONSORTIA**; The ministry of human Resource development (MHRD) has set up a consortia-based subscription to electronic resource for technical education system in India on the recommendation made by the expert group appointed by the ministry. The consortia is named as the Indian National Digital Library in science and technology (INDEST) consortium. The ministry of human resource Development(MHRD) has agreed to release the funds required for subscription electronic resources for IISC,Is, NITs, IIMs directly to the consortia headquarters set up at the IIT Delhi.

**DIGITAL CONTENT**; Digital content generally, refers to the electronic delivery of faction, which

is shorter than book-length. Notification documents and other written works of shorter length. Technology used for delivering digital content includes adobe PDX, XML,HDML(Handheld Device Markup Language)WAP (Wireless Application Protocol) and other technologies.

**INFORMATION ON INTERNET**

The availability of information sources on internet has no limit. This information is stored in the computers it is scattered all over the world. Any information be can accessed by anything, Anywhere, Anytime.

- Library Catalogue.
- Large data bases scientific and other information
- Electronic books and journals.
- Full text of documents
- News papers and information Medias.
- Commercial advertising and customer service information.
- Communication facility.

The academic users are major beneficiary groups of internet provides information to students, researchers, and faculties from a wide variety of subjects like pure and applied sciences, social sciences and humanities, art etc. over internet, a faculty can share his knowledge in the subject.

A researcher can collect information on his area of study from anywhere in the world. A student can clarify his doubts which may not be possible in classroom.

**ADVANTAGES OF INTERNET**

- ✓ It allows remote access
- ✓ Can be used simultaneously by more than one user.
- ✓ Any change in e-information can be made available quickly.
- ✓ All time information, just like all time money (ATM)
- ✓ Large and divers collection.
- ✓ Find out the Fault immediately.
- ✓ Internet enables large volume communication.
- ✓ Low cost operation and maintenance.
- ✓ Support multimedia information exchange.
- ✓ Save funds for the organization.
- ✓ It will save space in the library.

**DISADVANTAGES OF THE INTERNET**

- ✓ Lack of expertise to use technology
- ✓ Lack of single protocol uniformity and proper indexing etc
- ✓ Noise of telecommunication

**ROLE OF COLLEGE LIBRARY IN THE INTERNET AGE**

Information is an important to the human being as is the food, air and other necessities of life without which it cannot function. Librarian acting custodians of information has gone through a drastic change and providing documents to their clienteles has switched to an information provider. The role of librarian as information organizer and navigator has gained important in the internet era. The 21$^{st}$ century demands that the librarian and

play a greater role in identification, listing and classifying information sources and providing systematic approach to accessing the required information. In this way they can take a rightful place and act as human agent. In due course of time the librarians will have to develop new indexing methods and evolutionary techniques to tap information from internet and also establish the classification modes in an open way to allow for those addition of new categories of documents that may different from original priorities.

**EXPECTATIONS OF LABRARIES THROUGHCLOUD COMPUTING TECHNOLOGIES**

Today libraries are using cloud computing technology for enhancing the services by adding together more values, attracting the users community and cost effectiveness. In the cloud computing atmosphere, clouds are vast resources pools with on demands resource allocation and a collection of networks features. The new concept of cloud and libraries has generated a new model called cloud libraries though the usages of cloud computing may vary with the libraries, nature services and information needs but most common usage of clouds computing with in libraries can be development of digital libraries cooperate cataloging acquisition, storage and sharing the resources on virtual occur due to the information explosion.

**DEFINITIONS:**

MC Kinsey defined "cloud are hardware based services offering compute, networks and storages, capacity where hardware management is hardly abstracted from the buyers insure Infrastructure cost as variable OPEX, and infrastructure is highly elastics"

According to Wikipedia, "Cloud computing is internet based computing whereby shared resources, software & information are provided to computers and other devices on demand like electricity grid."

In general the term cloud computing is metaphor for the internet. With the advance of this we can get access at any time through any devices via internet.

**TYPES OF CLOUD COMPUTING MODELS:**

Cloud computing services providers provide services can be grouped into three categories.

1. **Software as a service (SaaS)** : In this type of computing models a complete application is offered to the customer, as a service is delivery of business application designed for a specific purpose. Each customer has its own resources that are segregated from those of other customer . It also shows t/fine tenancy which offers the same level of segregation but it more efficient. Ex.-MS-OFFICE 365, Google apps, trade cord, etc..
2. **Platform as a service (PaaS)** : It is the integrated software which provides developer nees for the both software development and runtime. Ex. Open shift. Google apps engine, Heroku, force.com, engine yard, Mendix, force.com, Amazon.

3. **Infrastructure as a Service (Iaas)**: It is the delivery of servers, networking technology, storage, of data centre, operation systems & virtualization technology to manage the resources.

Ex.DYN DNS, Amazon EC2, Azure services Platform.

**MODELS DEPLOYMENT CLOUD:**

**Cloud computing services are provided via**

1. **Private cloud** : In this cloud, the infrastructure is operated solely for specific organization and is managed by the organization or third party.
2. **Community cloud** : The infrastructure may be owned and operated by organization or services provider in this cloud service is shared by several organization.
3. **Public cloud:** The service is available over the internet and owned and operated by a cloud provider E-Mail and social Networking sites are the best examples of public cloud.
4. **Hybrid Cloud**: A hybrid cloud is cord combination of different method of resources pooling (for example , combining public and community clouds.)

**CONCLUSION: Library** and information professionals' role has to be redefined in view of information technology development and they need to weigh all the users' actual need and interest. Library and information professionals will have to ascertain the impact of cloud computing is considered as the next generation of virtual in technology. It has emerged as one of the cost benefit, powerful technology people working service sectors. Library and information centers especially libraries which are directly connected to different aspects of inform information generation, consumption for the various activities like learning, and research can be benefitted by adopting cloud computing applications.

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