



## USE OF CLOUD COMPUTING IN LIBRARIES: AN OVERVIEW

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### ABSTRACT :

Cloud computing is the popular word in the field of library and information science nowadays. Here I would like to give a brief overview about the cloud computing technology by giving its definitions, its characteristics, models of cloud computing and role of cloud computing in libraries.

**KEYWORD:** Cloud computing, Library, Cloud Librarian.

### INTRODUCTION

We are living in the age of web technology which shows its effect on the each and aspects of the human life. Technology plays a vital role in the field of library science also. Library functions like acquisition, archiving, processing and organization facing many new challenges due the application of information technology in the field of library. Each day bring new challenges as well as new technology applications in library field as it is necessary to satisfy the changing need of the information driven society. Nowadays cloud computing is the buzz word in the field of the library. As the cloud computing is still a quite new technology in the field of library, library professionals should be aware about this technology and due this needed focus this paper provides a brief overview about this technology.



### DEFINITION OF CLOUD COMPUTING:

A simple definition of cloud computing involves delivering different types of services over the Internet. From software and analytics to secure and safe data storage and networking resources, everything can be delivered via the cloud.

Cloud computing is a general term for anything that involves delivering hosted services over the Internet.

According to Douglas Gourlay "People are coming to grips with Virtualization and how it reshapes IT, creates service and software based models, and in many ways changes a lot of the physical layer we are used to. Clouds will be the next transformation over the next several years, building off of the software models that virtualization enabled."

### CHARACTERISTICS OF CLOUD COMPUTING:

- 1. On- Demand Self Service:** Which means that you can use the as per your need and you have for the usage you have done only. It is similar like we pay electricity bills. Here you have to chose your service provider and create an account and your services will be start.
- 2. Broad Network Access:** You can use your cloud data through web browser from anywhere and from irrespective of devices. This becomes possible only because the data were stored on the server of cloud.

3. **Resource Pooling:** As per this characteristics number of person can use the same space and it can be distributed at the same time.
4. **Rapid Elasticity:** Cloud is elastic in terms of it can grow as well as it can shrink without affecting the other user's data.
5. **Measured Services:** Many services provider provide the services on the bases of the pay and use. Means users are getting what they are paying for.

### MODELS OF CLOUD COMPUTING SERVICES:

Following were the basic three types of the models available for the cloud computing services.

#### 1. Infrastructure as a Services ( IaaS ) :

In this type of the cloud computing services, user needs to pay as long as he wants to be there or avail the services on the cloud server. User of this kind of the services allocated the storage capacity on the server and they can start or stop the services as per their needs. IaaS service provider provides small, medium, large and extra large memory storage on the cloud.

#### 2. Platform as a Services (PaaS) :

This is the complete network storage in which you can involve multiple developers and vendors. This model provides all the computing and networking resources available at lease hence it is cost effective service model. This kind of the model is easier to develop thus it is scalability.

This kind of the service model has some disadvantages also. For example if you want to migrate from any services of PaaS model it makes hard for users to switch over. Further it is also possible that your current infrastructure may not support the cloud platform.

#### 3. Software as a Service (SaaS) :

This model provides quick cloud base access to the web applications without installing any new hardware and software. SaaS model is available by taking licensed subscription or free for limited period. This kind of the model is available in ready to use conditions, can be accessible from anywhere and it is affordable also.

### ROLE OF CLOUD COMPUTING IN LIBRARIES:

Cloud computing has a very vast potential in the field of library and information science. Libraries can use the cloud to put scanned historical and rare documents and such documents are easily available to the users and researchers. Nowadays many libraries also shared their bibliographic data with the OCLC and having their online catalogues also.

Cloud computing can be mainly used in the libraries for data storage. These days it is difficult for many libraries to store the large digital content over the library server and which could add more stress to the library infrastructure. Storing large digital content over the cloud may reduce the infrastructural cost of the libraries. According to Zhu (2012) "Cloud based services bringing the cutting age services to the libraries which do not have or have lessen information technology related expertise". By using the cloud services libraries becomes free by worrying about the maintenance of infrastructure like updating hardware and software time to time etc. Further cloud based services offer better mobility to the library users. Library users need not be present in the campus of the organization where library situated rather user just need an internet connection and a PC to access the library resources from any corner of the world.

Libraries can use the cloud computing services for creating a union catalogue of networked libraries, and users can easily search the union catalogue. Further libraries can use the services of cloud of computing for providing document delivery services which documents available in digital formats. Libraries use this technology for providing current awareness services, question papers, syllabus etc to the library users. Apart from this library can organize the orientation and information literacy programs through the cloud based services.

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**CONCLUSION:**

Use of cloud computing is very new phenomena in the field of library and information science thus not many libraries are using this technology. However cloud based services offer many benefits to the libraries and helpful to the libraries for automating their library services and function. Hence library professionals should think positively about using the cloud computing services in their libraries and offer the more reliable and speedy information services to the library patrons.

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