A SURVEY ON LIBRARY SERVICES IN ACADEMICS THROUGH CLOUD COMPUTING

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Abstract—Information technology plays very important role in library science in terms of collection, Storage, Dissemination and analysis of information. Library faced many challenges in the profession due to applications of information technology. Today Libraries are moving toward the new Technologies like Cloud Computing. The new concept of clouds and libraries has generated new model called Cloud Libraries. We need to develop these types of libraries due to information explosion, problems in accessing information, save the time of the user and staff, problems in resource sharing and resource management and most important reason is cost effectiveness. In cloud computing libraries need not have the softwares and hardwares in the library, which will be available with the service providers. Using this technology user can access the information from anywhere, any devices through internet.

Keywords—library services, cloud computing.

I. INTRODUCTION

Cloud computing is a kind of computing technology which facilitates in sharing the resources and services over the internet rather than having these services and resources on local servers/ nodes or personal devices’. The combination of servers, networks, connection, applications and resources is defined as ‘cloud’. Cloud computing is acting as a resources pooling technology for accessing infinite computing services and resources as per demand of users and can be compare with models of pay as you use or utility model same as used for mobile services usages and electricity consumption. There are three service models of Cloud Computing such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), & Software as a Service (SaaS). IaaS offers necessary computing resources like (processing, storage, networks, and operating resources) over the Internet. PaaS offers platform (Google App Engine) to run the user created or acquired applications on the Internet. SaaS provides applications and software (Google Docs) on cloud which can be accessed through any device having web browser.

II. LITERATURE SURVEY

Sanchati and Kulkarni (2011) interpreted ‘cloud computing is the improvement of distributed computing, parallel computing, grid computing and distributed databases.

According to Kroski (2009) ‘cloud computing is a way to use off-site computer processing power to replace content creation and servers that were traditionally hosted onsite. It does not own the physical infrastructure rather they get it on rent from a third party provider. Simply, cloud computing is using web services for computing needs’.

Accorrding to Mladen A. Vouk, ‘Cloud Computing is a service oriented architecture, reduced information technology overhead for the end user, greater flexibility, reduced total cost of ownership, on demand services and many other thing’.

Michael Armbrust(et.al) defined as ‘cloud computing refers to both the applications delivered as services over the Internet and the hardware and systems software in the data centres that provide those services’.

According to (Mavodza, 2013) ‘libraries are using the cloud for putting together user resources, i.e. using Software as a Service (SaaS), such as in library catalogues, WorldCat, Googledocs, and the aggregated subject gateways like SUMMON, and others; the web Platform as a Service (PaaS) as in the use of Google AppEngine, or Infrastructure as a Service (IaaS) as in the use of D-Space, FEDORA, and others. The cloud is confirmed as a facilitator in storing and accessing information in addition to
providing a unified web presence with reduced local storage capacity challenges’.

Yuvraj (2013) made a survey to find, how librarians in Indian Central Universities are using Cloud Computing tools into their daily library services and works. Result show that librarians are heavily dependent on cloud computing tools and majority of them are using various devices and want to imply the same to improve library services. Again, economics, delivery models and service layers and the user’s preference of cloud computing are the core drivers for using those applications in library, but majority of the librarians showed their concern over the security.

Mahalakshmi & Ally (2012) conducted a study to identify the awareness and applications of cloud computing by librarians of engineering colleges of coimbatore district and found that most of the respondents (98.2%) are aware of the term cloud computing and 87.7% of the respondents are aware of the application of cloud computing in libraries. Half of the respondents (52.6%) are of the opinion that it is feasible to apply cloud computing in libraries in Indian context.

Many studies have examined the overall concept of Cloud Computing. However, research on librarian’s usage and acceptance level of Cloud Computing is not very significant. No study has been made on effective services by using the cloud technology to reduce the cost and time and overcome the hardware and software problems. The main purpose of this research paper is to provide better service to the users and the staff among the Academic Libraries by using the cloud computing services.

OBJECTIVES OF THE STUDY

The main objectivities of the study are:

- To identify the Information services provided using cloud computing in Academic Libraries.
- To proffer solutions to the implications in terms cost, staff and maintenance of cloud computing in Academic Libraries.

PROPOSED METHOD:

Descriptive method utilizing qualitative techniques, purposive sampling and content analysis were employed. The study is depending on the librarians and users of Academic Libraries in Telangana State. The Area of the study is collecting Questionnaire, observation and in depth interviews from the participant Academic Libraries. The Questionnaire contains the use of internet, usage of cloud computing applications, Opinions of Librarians and Users to implement effective services in Academic Libraries. The Questionnaire is helpful to make a effective services by using the Cloud application (Saas, Iaas) to sharing the resources, and how to overcome the financial and manpower problems in the library.

CLOUD COMPUTING IN LIBRARIES

Research in cloud computing has devoted much of time to study the issues and problems and technologies are witnessing sea changes because of the emergences of cloud computing. It is a package of computing services and applications on the web. Libraries are witnessing tremendous changes from the very beginning of traditional form. In the beginning, libraries have used floppy disks followed by CD-ROMs (Compact Disk-Read Only Memory) to procure or to provide information service to the users. Now the trend is changed with storage of information on Internet, Digital Library, Library Consortia, Institutional Repositories, etc. Most of the people in near future may not work with their PC-based computers, instead, they will work with web-based online environment, where all the software will be loaded in the domain. People will be free from installing software, purchasing of hardware and services. Now, the latest stage in which libraries rely is on cloud computing, which is latest developments and provides more benefits to the libraries. Through the cloud, libraries can be connected for sharing of information, which is easier. In this computing, the library can pay for what it has used. Since the libraries are moving towards paperless society, librarians have to depend on cloud based computing services, where spending huge amount for hardware,
software, networks and services can be minimized. It is also predicted that with short period of time, most of the libraries in India have a chance to join in the cloud computing, thereby all the collections, services and systems will be available through cloud.

**Fig: Cloud computing in Libraries**

**CONCLUSION:**

The rapid development in technology creating a lot of opportunities to library professionals. But, there is a gap between the rapidly growing technologies and the usage of those technologies by library professionals. Cloud computing is a new technology which allows them to avoid locally hosting multiple servers and equipments and constantly dealing with hardware failure, software failure, upgrades and compatibility issues. Cloud computing can simplify processes and save time and money. Although, cloud computing is more economic and cost-saving than the traditional computing methods, very few people use it for library operation and services and it is used more for personal purposes. The question of trust over the cloud service provider, data protection and broadband accessibility hinders its implementation on a larger scale.

**REFERENCES**


