Cloud Computing Technology in Public Library System: An Overview

Chitransh Dixit[1], Dr. Kanchan lata Dixit[2], Dr. Chandra Kumar Dixit [3], Dr. Praveen Kumar Pandey[4]

1. RV Institute of Technology and Management, Bangalore,India
2. Institute of Entrepreneurship Development, Lucknow, U.P,India
3. Dr. Shakuntala Misra National Rehabilitation University Lucknow, U.P,India
4. Dr. Shakuntala Misra National Rehabilitation University Lucknow, U.P,India

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ABSTRACT

The present paper describes concept of cloud computing . Its Modal Advantage Of Cloud computing information & communication technology impact positively on library service & day by day change its service scenario know information It should be repacked and knowledge becomes information when it is externalized i.e. put into the process of communication . The paper has suggested / listed the importance & characteristics of the ICT in (LIS) library information service 7 component of cloud computing benefits & drawback of the technology . Cloud computing is an excellent alternative for educational institutions which are especially under budget shortage in order to operate their information systems effectively without spending any more capital for the computers & network device . Cloud computing brings the revolutionary changes in the words of information & communication technology because of its potential benefits . Such as reduced cost , accessible any where any time , as well its elasticity & flexibility.

Introduction

The present era is the era of knowledge society . The hole word connected to each other through internet . Cloud computing has given access to its consumers & business to use applications without installations & access their personal files at any computer with internet access . Whether they are using Google's , Gmail , organizing photos , on Flicker or searching the web with binge they are engaged in cloud computing is not something that suddenly appear over night; in some form it may track back to a time when computer system remotely time shared computing resources & application the cloud computing modal allows access to information & computer resources from anywhere that a network connection is available . In this user can pay as / she uses the programmers and can work from home , office or any other place . In cloud computing environment multiple users can access a single server to retrieve and update their data without purchasing any licenses for different kind of applications but also can make more extensive use of cloud computing to ore work life .

Cloud Computing is a web based service , where a user (client) can access and manipulates files available in data servers . The Gartner group defines cloud computing as " A style of computing in which massively scalier and elastic IT enabled capabilities are delivered as a service to a external customers using internet technologies ". The core concept of cloud computing is quite simple that the vast computing resources that we need will reside somewhere . Cloud computing represents an exciting opportunity to bring on demand applications to digital library .

Type of cloud computing
Deploying cloud computing can differ depending on requirements and the following four deployment models have been identified each with specific characteristics that support the need of the service and uses of the cloud in particular ways .

- **Private cloud** : Private cloud is cloud infrastructure operated solely for a single organization weather managed externally . Undertaking a private cloud projects requires a significant level and degree of engagement to virtualized the business environment & it will require the organization to tom revaluate decisions about existing resources . When it is done right it can have a positive impact on a business . Bit everyone of the steps in the project raises security issues that must be address in order to avoid serious vulnerabilities .

- **Plublic Cloud :** This cloud infrastructure is available to the public on a commercial basis by a cloud service provider . These service provider these service are free or offered on pay-per use model. The benefit of moving to public cloud is that the user does have to worry about security , managing IT Infrastructure , up gradation of software etc.

- **Hybrid Cloud :** The Hybrid Cloud is a mixture of public an private cloud that remains unique criticizes but that are bound together standardized proprietary technology enabling data and application portability . Hydride cloud is based on distinct intities but is bound together , offering the benefits of multiple deployment models . But utilizing " Hybride Cloud " Architecture companies and individuals are able to obtain degrees of fault tolerance combined with locally immediate usability without dependency on internet connectivity .

- **Community Cloud :** The cloud infrastructure is shared among a number of organizations with similar interests and requirements . This may help limit the capital expenditure costs for its establishment as the cost are shared amount the

organizations . The operation may be in – house or with a third party on the premises .

Classification of cloud service :-

Based upon the service offered cloud can be classified into the following three categories .

Repository in the cloud :-

1. Dora space – Dora space is an organization now over both space and fedora .
2. Dspace – Space is an intuitional repository application .
3. Dora Cloud – Dora cloud shared hostage repository platform .

Area of library where cloud computing can applied :-

- Automation of housekeeping operation .
- Common library software can be used amongst the members of libraries that can be installed on cloud.
- To provide proper training programs through cloud .
- With the help of cloud computing we can develop regional or private repository .
- Web OPAC can be uploaded on clouds with the help of cloud our dedicated user can search proper document on any place of the world .
- Sharing of e-resources through cloud computing .

Advantage of cloud computing :-

The obvious huge advantage is that you no more have to support the infrastructure or have the knowledge necessary to develop and maintain the infrastructure . Cloud computing offers numbers of advantages both to end users and organization of all sizes .

- *No hardware required :-* Again a backup cloud be work looking into the event of a disaster that could leave your company's productivity stagnant . A physica; storage center is no longer needed as it is hosted in the cloud computing .
- *Full text information :-* A number of journals .
- *Automatic software integration :-* Has been published individual or as connection of full text articles , this means that you do not need to take additional efforts to customize and integrate your applications as per your preference . In cloud computing software integrate your applications as per your preferences . In cloud computing software integration is usually something that occurs automatically . this aspect usually takes care of itself .
- *Electronic documents service :-* Scanning process involved the conversion of paper to electronic image with the help of page scanner the supply of information can be verified .
- *Increased storage capacity :-* It eliminates worries about running out of storage space and at the same time . The cloud can accommodate and store much more data compared to a personal computer and in a way offers almost unlimited storage capacity . It spares business the need to upgrade their computer hardware , further reducing the overall It cast .
- *Online commercial library :-* On line library where an individual can read book at their comfort and have broad range of subject .
- *Backup and recovery :-* The process of backing up and recovering data is simplified since those now reside on the cloud and not on a physical device . With the help of cloud computing we can store huge amount of data in another location and no fear of data or information lost .
- *Real simple indication :-* It will keep user adjourned of all latest news . (RSS) allows a producer of information to broadcast the information across internet .
- *Bullet in board :-* The BBS is a mini anchor from on an online system for a cost effective distribution in a electric format .

Disadvantages of cloud computing
[1] Various technical issues
[2] Dependency on service provider
[3] Prone to attach various problems
[4] Risk of data loss
[5] Budget and time are constraints .

Use of cloud computing in library and information science
The cloud computing pushes hardware to more abstract levels . Cloud computing has made strong in roads into other commercial sectors and is now beginning to fund more beginning to find more application on library and information science . Most of us are acquainted with fast computing power begging delivered from system that we can see and touch .

- *Cloud Infrastructure i.e. infrastructure as a service (IOSS) :-* Your library out sources the equipment used , including storage , hardware , servers and networking components . The service provider owns the equipment and id responsible for housing . running and maintaining it . In India unavailability if well it expect is biggest problem . A variety of services are now available like Amazon web services , windows Azure , and Google compute engine .

- *Cloud platform i.e. Platform as a service (PAAS):-* Specialized Alps for building applications over the internet , like Google ,App engine . In out muted library various type of software is required to perform for various type of ask related to library .We know very well in India library suffers from lack of budget . leading service providers that offer PAAS are Amazon elastic Beanstalk , Google , APP and Microsoft Azure .

- *Cloud software i.e. software as a service (SAAS):-* In this service vendor provide a platform for interlining the software programmers . A single instance of the service rums on the cloud & multiple end users are serviced . On the customers side , there is no need for up[front investment in servers or software licenses while for the provider . The costs are lowered . Since only a single applications needs to be hosted and maintained .

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Some Live examples where libraries are adopting cloud computing
1. **OCLC :-** online Computer library centre is a nonprofit , membership , computer library service and research organization dedicated to the public purposes of furthing access to the world's information and reducing the rate of rise library costs . In the work's OCLC has been functioning as a cloud computing vender . They provide cataloguing tools over the internet allow member institution to draw on their centralized data store .

2. **Library thing :-** It is one of the sites that combine aspects of social networking and cloud computing is Kobrary Thing , originator of which is trim Spalding , Library Thing offers services which are just like social networking site , authorizes people to contribute information and suggestion about books and allows them to interne – connect globally to share interests .

3. **Reed Elsevier :-** Read Elsevier as a service provider for scientific information working with hospitals to provide point in time information to medical technicians as they need the information . It is capitalizing on the cloud computing modal . There is the possibility to place monographic and articles content or even technical manuals so that technician and other medical personnel can get assistance exactly when they need it .

Concluison :-

Cloud computing is an emerging computing applications available over internet . Careful attention to design will help ensure a successful development . Cloud computing has enabled terms and organizations to streamline lengthy procurement process . In today's information society . library have the opportunity to improve their service with the help of cloud computing. Cloud computing is very important tools for every librarian . But cloud computing is in a period of strong growth , so this technology is still has some issues of security and somewhat it is immature . It is one path for this move into the future which brings numerous advantages for libraries . The cloud computing will play a big role in not only a automation of library service in present financial constraint for all types of libraries especially in India but also in Governance of difference sector such as education . Information and communication technology is the basic requirement for establishing the cloud application for the liberary users .

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