Moving Libraries Services to the Web through Cloud Computing: A Modern Approach

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Introduction

In Today's modern world the expectation of users in all spheres of services are changed. As the aim of library services which are to provide information to users all day & night are also changing now with collection and storage of information in physical form and online resources. Users are also in a need of access this all information on 24*7 bases in various modes like (mobile, tablet etc). In this context number of libraries now a days have already applied ICT application in libraries as a result more and more libraries are getting automated and building their own repositories. Subsequently they are subscribing e-resources and available on the web easily. Keeping user's point of view libraries are installing web scale discovering tools on their website but, for all these activates lot of financial resources of a libraries are exhausting like as storage service, hardwares, softwares (systems & application) and back up etc. Now the question arise that can one cut the cost of all these activities? Yes, the only answer to this question is Cloud Computing.

Objectives of the study

1. To study the present scenarios of the library automation in India.
2. To find out the problems and issues of libraries regarding automation and digitization, e-resources access and digital library hosting.
3. To suggest the most suitable and economical way to solve all these problems and issues.

Present scenario of library Automation in India

As these are no official census of the exact number of libraries in India, however the number of libraries is around for take with following categorization:

Public Libraries	: 5400
Special/Govt. Libraries	: 15000
University/College Libraries	: 15000
School Libraries	: 300000+

Library Automation Software in India

At present following softwares are used in libraries:

In-House	: 2000 Libraries
Libsys	: 1700 Libraries
Alice	: 300 Libraries
Soul	: 2000 Libraries
Slim	: 50 Libraries
E-Granthalaya	: 2200 Libraries
VTLS	: 10 Libraries
Others	: 100 libraries

The data clearly shows that less than 5% libraries in India are automated till date. From which less than 2% are present on web.

Problems in Library Automation

- Poor Financial Conditions of the Libraries.
- Lack of professional attitude.
- Non-availability of library professionals.
- Public IP's are not available but still they are available on intranet level.
- Security issues.
- No disaster management plans to recurs the date.
- Non standard library softwares.

Problems in E-Resources Access

Now a day's many Libraries subscribe to e- resources like online database, e-books, e-journals, and electronic libraries for their libraries. Most of the time, the access to these resources are restricted by the publishers within the campus through IP Authentication or user ID and password which disabled the user to access these resonances from outside the campus.

Problems in Digital library Hosting

Many reputed and renewed universities, IITs, IIMs are hosting their own repositories build by then, but these are available on local intranet level. Only few are available on internet level. Here is the main problem is that public IP and security are the infrastructure concerns.

Other Problems

As user access web page, repository and other digital resources, individually but the demand of users is that only one search button should be available in the concern website like as google. For this purpose, libraries have to purchase web scale discovery tool which is paid. This adds to the financial burdon on library.

To solve these vital issues and problems in library services today we are having a common solution that is cloud computing.

Cloud Computing

Cloud Computing is the internet based computing where resources, softwares and information is shared and also provided to computers and other devices on demand same an electricity grid.

Cloud Computing Services Model

The Service models deployed as per the requirements are following:-

1. Software as a Services (SaaS)
2. Platform as a Services (PaaS)
3. Infrastructure as a Services(IaaS)

1. Software as Services (SaaS)

It is a software distribution modal in which applications hosted by service provider is centrally hosted

on the cloud and made available to customers over a network. The management of patches and upgrades can be handled

2. Platform as Services (PaaS)

In this services model, customer purchases access to the platform, enabling him to deploy his own software and applications.

3. Infrastructure as Services (IaaS)

In this service modal, customer controls and manages the systems in terms of the operating systems, applications, storage and network connectivity, but do not control the cloud infrastructure. He is responsible for patching and maintaining the operating systems and application software.

Cloud computing for libraries

- Discovery as a service
- Library portal as a service
- Library automation a service
- Library infrastructure as a service (Hardware/Software/Application)

Benefits for libraries

1. Libraries management software can be installed at cloud for access to libraries that have purchased the license.
2. No need of installing Digital Library software in every origination
3. Duplication of bibliographic data entry can avoided as all the database of libraries at one place.
4. Networking of libraries and resource staring can possible.
5. Librarians need not to have more technical knowledge as all resources available at browser entry.
6. Web scale discovery tools can be made for users as all data like database of the library, online resources, repository data and digital library etc. at one place
7. Data secure
8. Library census can be taken online.
9. Library users can access their library outside the campus (means hole the world)

Conclusion

Cloud computing takes most of the cost burden from libraries as there is no need of infrastructure as compared to traditional approaches, only internet connection is required. So from that it is very clear that next generation will be of cloud computing.

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