Cloud Computing in Academic Libraries.

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Manuscript Details

Available online on <u>http://www.irjse.in</u> ISSN: 2322-0015

Cite this article as:

Fulzele SD. Cloud Computing in Academic Libraries., Int. Res. Journal of Science & Engineering, February, 2020 | Special Issue A7:825-828.

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ABSTRACT

Libraries have been changing their activities in the housekeeping operation with the invention of the computer and communication Technologies. The new Technology concept will minimize the cost of the hardware and software applicable to the Libraries. At the same time cloud computing can simplify the different functions and activation within shorter period to time. The paper present on overview of cloud computing and its application that can be using libraries.

Keywords:- Cloud Computing, Libraries, Academic, software, ICT

INTRODUCTION

Today we are living in the age of information. Information technology play very vital role in Library Science. for collection, storage, organization, processing and analysis of information. In this demanding library world, the raison deter to adopt cloud computing over standard IT development is flexibility, stability, rapid provisioning, reliability and green solution also. New concept are being added to ease the practices in the libraries is also accepting many new technologies. I the profession as they suit the present information handling and they satisfy needs of the knowledge society. [1]

Cloud computing is the technology of computing. which is totally based on internet media. Using internet technology many servers shares resources in term of offering common platform for the use of software application, different resources including information, networking computer and devices. which are attached on request with the control of electricity grid. Cloud computing remains invisible to the its users. The Libraries have been automated, networked, and new moving towards paper less or virtual libraries. [2]

When we store our photos online instead of on our home computer, or use webmail or a social networking site. Which means we are using a "Cloud Computing" service. If suppose we are in organization and you want to use for example, on online invoicing services instead of updating the in house one your have been using for many years, that online invoicing service is a "Cloud Computing" service.

WHAT IS CLOUD COMPUTING

Cloud computing is the delivery computing services over the internet, cloud computing allow individual and group to use software and hardware that are managed by third parties at remote location. Cloud computing is the way of proving a various services on virtual machines allocated on top of a largo physical machine pool which resides in the cloud compacting comes into focus only when be think about what it has always wanted away to in case capacity or add different capabilities to the current seating on the fly without investing in new infrastructure training new personal or licensing new software. [1,2]

The above figure-1 shows there library services integrated in cloud computing. One can develop or reshape libraries by using the services of cloud computing. If library professional or librarian creates awareness about the cloud computing among the users of the library, users can easily avail the services of the cloud computing.

TYPE OF CLOUDS COMPUTING

The types of Cloud computing are as follows :

1. Infrastructure as a service (laas) :- This type of cloud computing is also sometimes referred to as hardware as a service and it involves both storage services and computing power. Delivers utility computing capability, typically as raw virtual servers on demand that customers configure and image.

- 2. **Platform as a service (Paas)** :- Here a layer of software of development environmental is encapsulated and offered as a service. Open which order higher levels of service can be built. The customer has the freedom to built his own applications, which run on the providers infrastructure some of the major cloud computing vender is Amazon, Microsoft and Google etc.
- 3. Software as a service (Saas) :- Software package such as CRM or CAD/CAM can be accessed cloud computing scheme. Here a customer upon registration is allowed to use software accessible through net and use it for his business process. The related data and work many be stored on local machines or with the service. Providers, saas services may be available on rental basis or on persist basis. [2,3]

ADVANTAGES OF CLOUD COMPUTING IN LIBRARIES CAST SAVING

In era of striking budgets it gets harder with each passing year to justify the purchase and maintenance of servers that aren't in use almost all the time. Cloud computing offers price saving due to economics of scale and true fact that you are only paying for the resources you actually use.

Flexibility and innovation :- Library don't have to decide between devoting their limited server resources to the OPAC overflow traffic and new mobile web application that one of your colleagues wants to develop.[3,4]

- User entric.
- Cloud computing is completely geographically independent it users can access the system from the web bro browsers anywhere in the world at any time.
- Multy and large application pool is available for users.
- Security :- Security is at one level above as compared to other network because of the centralization of data and increased security feature of every individual component.

DISADVANTAGES OF CLOUD COMPUTING

- **1. Data Security** :- The biggest concerns about Cloud computing are security, especially if the organization are dealing with sensitive data such as credit card information of customer.
- 2. Network Connectivity and Bandwidth :- Since the cloud computing is offered over the internet, if the connection goes down due to any reason then the organization suffer from loss of data connectivity till the time it is set. [4]
- **3. Depend on outside agencies** :- The cloud service offered by third party services over the internet it is virtually difficult to have any contract on the maintains levels and the frequency.

- **4. Limited Flexibility** :- Flexibility may be limited in terms of special customization as services on the cloud will be common for all the users.
- Cast :- Initially the cast cloud be higher, but may reduce depending on true usage of services. However, organization may end up paying higher charges in the future.
- 6. **Privacy** :- Privacy loss is a big concern when we talk about cloud based services. Data stored or shared on the cloud by large social networking sites are usually protected and can be accessed by only authorized people. But there is always a chance of accidental data leakage, mismatch and other failure. [3,5,6]



(Fig.-1 Library Service integrated in Cloud Computing)

CONCLUSION

Cloud computing is the next beg wave in computing. It stands to change Information Technology Services for many environment. It has may benefits one of which betterment of hardware management. Since all the computers are the same and run the same hardware. They can help companies achieve more efficient use of their. It hardware and software investment and provide a means to accelerate the adoption of innovation. Library is a one of services areas where cloud computing techniques will be fully enforced.

Conflicts of interest: The authors stated that no conflicts of interest.

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