CLOUD COMPUTING AND ITS ROLE IN LIBRARIES

SANGITA GARG
M.lib. & Inf. Sc.

ABSTRACT:

Cloud computing is the new technology which reduces IT computing in which we can share recourses, software and information on computer. It is used in business, Industry, corporate sectors. The application of cloud computing in library is a new area. Libraries use cloud computing to implement the features and services better. There are many benefits of cloud computing such as it reduces cost accessible anywhere anytime. It is a technology which brought a dramatic change in libraries. It has also flexibility and elasticity. Now libraries become automated and networked. So, cloud computing is the newly developed area in libraries. This paper deals with the basic of cloud computing along with its characteristics, advantages, drawback and its applications in libraries.

KEYWORDS:
Cloud Computing, e-Resources, Internet, Virtual computing, Digital Library

INTRODUCTION:

Today we are living in digital age. In this digital age information technology plays an important role in library science. Initially in old time libraries faced many difficulties. The information technology sort-out many problems of library. Cloud computing is the new concepts which facilitates the library more. Cloud computing satisfied the need of knowledge of society. The term cloud computing tagged to almost any type of virtualized computing. It is an abstract technology that involves general access to remote computing recourses. Libraries become automated with the accession of information technology. These are the efforts towards virtual libraries. The evolution of virtual library produces e-publication, digital libraries, internet users, web tools application for libraries. Cloud computing is the latest technology for various purposes and for achieving economy in library process. So we should aware about cloud computing and its application in library science.

CLOUD COMPUTING:

Cloud computing is an IT template which enables all around access to shared pools of recourses and higher level services.

Cloud computing is a computer paradigm where data and services reside in data centers in the cloud and the data is accessed anywhere through connected devices. It is a process in which various services are provide to virtual machine present in the cloud. Cloud computing is a new technology which is adopted by many companies and organizations. Cloud computing provides a way to libraries to extend their impact. In cloud computing customer shared server which provide software, infrastructure platform in cloud computing pay as you use basis. In cloud computing we have lots of computing power and storage capabilities. Cloud computing cultivate the pertinences of resources and provides there resources as a single entity to the user.

T he main function of cloud computing is to create virtual server and give to clients. According to requirement of clients the infrastructure can be scaled up or down.

PROPERTIES OF CLOUD COMPUTING:

➢ Cloud computing increase the frequency of organization as cloud computing may increase flexibility and expanding the infrastructure resources.

➢ There is no need to install cloud computing software on each user's computer and it can be accessed from different place. The maintenance of cloud computing is easy.

➢ In cloud computing, the devices and location both are independent to each other. The user can access the system by using web browser on your PC or mobile anywhere. In cloud computing infrastructure is off site and accessed via internet.

➢ In cloud computing the software architecture used as it share recourses and costs across a large pool of users at lower cost.

➢ In cloud computing environment if any application failed then there is always hot backup of the application ready to sort out the failure.

➢ In cloud computing there are multiple copies of the same application so that at times of failure there copies takeover without any change.

➢ In cloud computing services have linearly increments. In this the work load is divided in to pieces and service it across the infrastructure i.e. if one server process 500 transaction then two server can process one thousand transaction per second.

➢ Cloud computing is used in many services.

➢ Cloud computing service are SLA driven service i.e. when the system experiences peak load it will automatically adjust itself due to service level agreement.

➢ Cloud computing highly flexible service. It can service from small load to very heavy loads of a commercial application.

MODELS OF CLOUD COMPUTING:

1. **Infrastructure as a service (IAAS):**

   In this model cloud computing offers infrastructure as a service. This service provides basic storage and computing capabilities over the network. In these service servers, resources are pooled and made available handle work load. In this service user avail hardware services such as processors, memory for specific duration and price. Some common example of this service is Amazon, Go grid, 3 Tera etc.
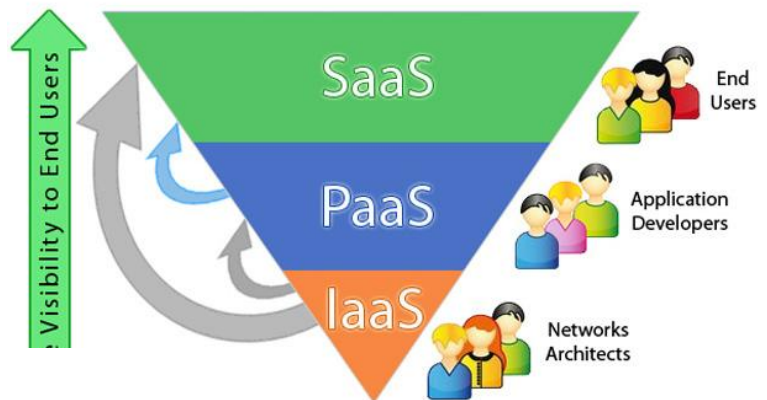
2. **Software as a service (SAAS):**

   In this model cloud computing offers a complete application to the customer. In this model single instant of the service runs on the cloud and multiple users can use it. Users need not to invest in server or software license. On the other side provider also need only to maintain and hosted a single application. This service provides many companies such as Google, sales force, Microsoft, Zoho etc. SAAS available on rental basis or on peruse basis.

3. **Platform as a service (PAAS):**

   In this model a computing platform such as operating system is provided to customers or and users on a monthly rental basis. In this model a user has freedom to build his on application which runs on the provider's platform. Major cloud computing vendor is Amazon, Microsoft and Google etc.

ROLE OF CLOUD COMPUTING IN LIBRARY:

Libraries want to make their data centers, to avail this facility cloud computing is the best option. Cloud of computing has large perspectives for libraries. In cloud computing a user able to browse data in to his device. Libraries can put large data into cloud. All the data scanned comprehensively and into easily searchable database and can be accessed easily. Most of the libraries have online data and share with OCLC. There are many technologies leads in the libraries like internet usage, web tools applications for libraries. Cloud computing is new IT technology which produced third revolution in library profession. Cloud computing is used in libraries for many purpose and achieving the economy in library functions. Since cloud computing is a new technology so we should aware about it. Cloud computing that exits remotely increase the capability of libraries and we required less need to update and maintenance. Cloud computing is the most accepted area in libraries.

CONCLUSION:

After the research of decades cloud computing is the good product in virtual computing utility computing and networking and web based services. Cloud computing is the most acceptable service in the library. It improves the quality of digital environment in libraries. In present time libraries are moving tow3ards cloud computing and getting the advantage of cloud based services. It is the time for libraries to think about cloud based technologies to available the rapid services to their users. Secondly cloud computing saves the time of users. Cloud computing increases the profit of companies and organizations by improving resource utilization. In cloud computing those resources are provided only whichever the user needed. Cloud computing enables research by declined the need of researcher to develop their research.

REFERENCES:

- **K.John, S.P.Singh & Sunil Tiwari: Future of Library & information Science.**
- **https://en.wikipedia.org/wiki/Cloud_computing**
- **https://azure.microsoft.com/en-in/overview/what-is-cloud-computing**
- **https://www.salesforce.com/cloudcomputing**
- **http://www.thbs.com/downloads/Cloud-Computing-Overview.pdf**
- **https://www.priv.gc.ca/resource/fs-fi/02_05_d_51_cc_e.pdf**
- **https://www.nsa.gov/research/_files/publications/cloud_computing_overview.pdf**
- **http://www.tutorialspoint.com/cloud_computing/cloud_computing_tutorial.pdf**