



## AN OVERVIEW ON CLOUD COMPUTING

Dr. C. Muthurasu

Teaching Assistant, Dept. of Library and Information Science, Alagappa University, Karaikudi- 630003.

Dr. M. Suganthi

Assistant Professor, College of Education, Alagappa University, Karaikudi – 630003.

**ABSTRACT** The study was examined the general overview of cloud computing is given in this paper. The integration of businesses or libraries is made simple by cloud computing. Cloud computing provides multiple services that are user-centered. The majority of libraries today use cloud computing technologies to manage their digital collections and social media with a variety of customization options. This document discusses a variety of cloud computing needs, service models, and types of cloud storage, advantages and disadvantages. In the history of services provided by way of the internet, cloud computing is a relatively new phenomenon. No matter where you are in the world, it has fundamentally altered how you use computer power. The fact that it uses platforms, hardware, or software from outside sources to provide services is the advantage that organizations and businesses can most clearly see. It is incredibly cost-effective because it requires fewer investments and money. Cloud computing is available in a variety of formats.

**KEYWORDS :** Cloud computing, cloud, Internet, Social Media, Models

## INTRODUCTION

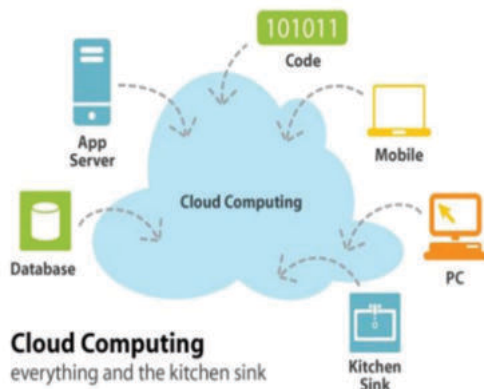
Libraries are undergoing a fundamental transformation from being static repository of knowledge and information to dynamic hubs of information and knowledge in today's fast-paced digital society. The management of resources, interactions with users, and service delivery in libraries are all being transformed by cloud computing, which has emerged as a ground-breaking technology. With the help of this paradigm change, libraries may effectively streamline their processes, improve user interactions, and guarantee the preservation and accessibility of priceless material. This article examines cloud computing foundations and potential applications for the world of libraries.

## What Is Cloud Computing?

Cloud computing is a new phenomena. Many individuals and organizations are adopting this technology model for IT services. The benefit is that they are saved from hosting and operating multiple servers over their own network.

C- Computing resources,  
L- that is Location independent,  
O- Can be accessed via online means,  
U- used as a Utility  
D is available on Demand

"People are coming to grips with Virtualization and how it reshapes IT, creates service and software based models, and in many ways changes a lot of the physical layer we are used to. Clouds will be the next transformation over the next several years, building off of the software models that virtualization enabled."



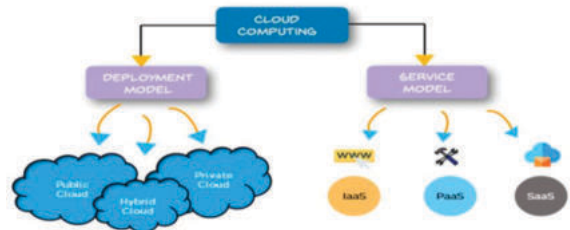
## Models

## Deployment Models:

- Private Cloud
- Community Cloud
- Public Cloud
- Hybrid Cloud

## Service Models

- Infrastructure as a Service (IaaS)
- Platform as a Service (PaaS)
- Software as a Service (SaaS)



## Deployment Models

The following models are presented by the deployment scenario:

## Public cloud storage

Public clouds: Any institute may use cloud service from third party which may available free or with cost can be considered as public cloud. For example: Google apps, Windows Azure.

## Private cloud storage

Private clouds: They are available only to the members of the organization. They facilitate user to store and disseminate their data on respective cloud. For example: Institutional cloud, eBay etc.,

## Hybrid cloud storage

As public cloud allow any organization to outsource their part of infrastructure to service provider, at the same time organization would lose the control over resources and data management. In this type of cloud a part of cloud will be given public for use. For example: Google Apps.

## Community clouds:

They are specifically organized clouds and are limited for specific group. For Example: Institutional Gmail of Google Apps.

## Special clouds:

They are extensions of normal cloud system to provide additional services. For Example: Google App Engine.

## Service Models

## 1. Infrastructure as a service (IaaS)

Infrastructure as a service i.e. (IaaS) is known as hardware as a service or HaaS. In this pay as you can go the service model the client is offered with storage and computing power service. It includes virtual service i.e. cloud computing and it is the cloud based service and located at IP addresses, bandwidth and network connectivity.

- Uses computing data center providing hosted server resources
- HP Adaptive infrastructure as a service
- Reckspace

- Amazon E2X and S3

### Example:

AT&T hosting and storage

### SaaS: Software as a service

It is the highest level of abstraction on the cloud and the applications are delivered over the World Wide Web as a service.

This layer of cloud service offers a wide range of applications from productivity applications to enterprise applications such as e-mail hosting, supply chain management or enterprise resource planning.

- Software, typically available on the web servers
- Google apps
- Sales force.com

### Examples

- User Mail: Gmail, Hotmail
- User pics: Flickr, Picasa

### PaaS: Platform as a service

It is the next level of abstraction, which not only does the technical abstraction but essential application infrastructure services such as computation, messaging, connectivity, access control, etc. In the traditional inhouse computing model, a group of network, database, and system management experts are needed to keep everything up and running with cloud computing, these services are now provided remotely by cloud providers under this layer.

### Why Computing Advantages and Disadvantage:

Any serious analysis of cloud computing must address the advantages and disadvantages offered by this burgeoning technology. Advantages below:

- Lower – cost computers for users
- Improved performance
- Lower IT infrastructure costs
- Fewer Maintenance Issues
- Lower software costs
- Instant software updates
- Increased computing power
- Unlimited Storage capacity
- Increased data safety
- Latest version availability
- Cost saving measures
- Speed
- Business Completion

### Disadvantages of Cloud Computing

- Requires a constant Internet Connection
- Doesn't Work well with low-Speed Connections
- Can be slow
- Features Might be limited
- Stored Data Might Not be Secure
- Lack of Control
- Technical Problem

### CONCLUSION

As a conclusion, it can be claimed that libraries have the ability to enhance their services and relevance in the modern information society thanks to cloud computing technologies. It could benefit libraries in many ways and change their future. It facilitates libraries in providing their materials, services, and knowledge at the point of need, within of user workflows, and in a way that users need and understand by providing them to share and utilize information, the framework of cloud computing will enable libraries and their users to take part in a network and community of libraries.

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