

Cloud Computing

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ABSTRACT

Cloud computing is a new calculation model based primarily on grid computing. Cloud computing is often defined as the computer environment where a single computer demanded by a single group is usually given to a different group and if it would like to appear to use computer power or resources such as information or emails, it will access them via the web. This is a paper for anyone who has just discovered about cloud computing and wishes to capture more about cloud computing. During this paper, we have described Cloud Computing, Cloud Computing Architecture, features of Cloud Computing, and various Services and Post Computing model.

Keywords - Cloud computing, On Demand computing, Distributed computing, Data center

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I. INTRODUCTION

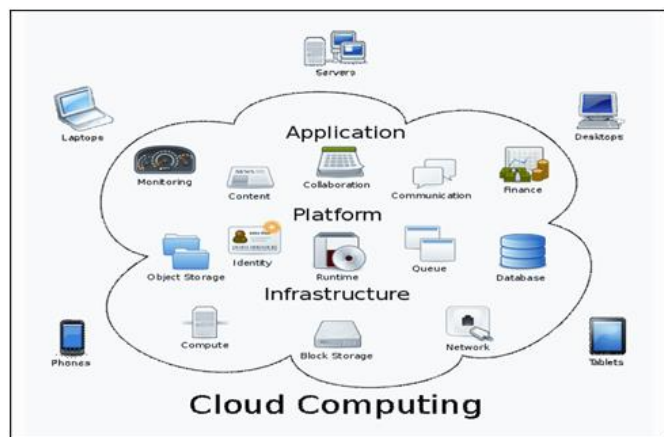
Cloud Computing provides an environment for sharing resources based on scalable frameworks, middleware's and application development platforms, and business applications. Cloud computing models host free infrastructure services with a host of other platform services, subscription-based infrastructure services with additional application services, and free merchant services but sharing revenue from customers. The term Cloud Computing has been structured in a number of ways by analysts' organizations, academics, business professionals and IT companies. Clouds is a vast reservoir of easy-to-use and accessible resources. These resources can be powerfully redesigned to control dynamic load (scale), which allows for more complete use of the service.

INTRODUCTION

Cloud Computing provides a surroundings for resource sharing in terms of ascendance frameworks, middleware's and application development platforms, and business applications. The operation models of cloud computing grasp free infrastructure services with value another platform services, subscription-based infrastructure services with supplemental application services, and free services for sellers but sharing of revenues generated from shoppers [1].

The term Cloud Computing has been out lined in some ways by analyst corporations, academics, business practitioners and IT corporations. Clouds is an over sized pool of simply usable and accessible virtualized resources.

These resources may be dynamically reconfigured to regulate to a variable load (scale), permitting additionally for an optimum resource utilization



Cloud computing is a new computational model which is primarily based on grid computing. Cloud computing are often outlined as a computing surroundings wherever computing wants by one party are often outsourced to a different party and once would like be arise to use the computing power or resources like information or emails, they will access them via web. This paper is for anyone who will have recently detected regarding cloud computing and desires to grasp a lot of regarding cloud computing. During this paper, we described Cloud Computing, Architecture of Cloud Computing, Characteristics of Cloud Computing, and different Services and Deployment model of Cloud Computing Figure 1 . cloud computing There is no doubt that cloud computing is the most popular topic in the IT business. Google, Amazon, Yahoo and other web service providers, IBM, Microsoft and other IT vendors suggest their cloud computing strategy, with many intermediate operators paying close attention to cloud computing, low prices much of the cloud computing platform becomes more business-focused.

Characteristics of Cloud Computing

There are basically 5 essential characteristics of Cloud Computing .

1. On-demand self-services :

Cloud computing services do not require any human controllers, users themselves are able to provide, monitor and manage computer resources as needed.

2. Broad network access :

Computing services are usually provided by standard networks and various devices.

3. Rapid elasticity :

Computing services should have IT resources that can go out and come in as quickly and continuously as needed. Whenever a user needs services it is provided to him and he exits immediately when his need has expired.

4. Resource pooling :

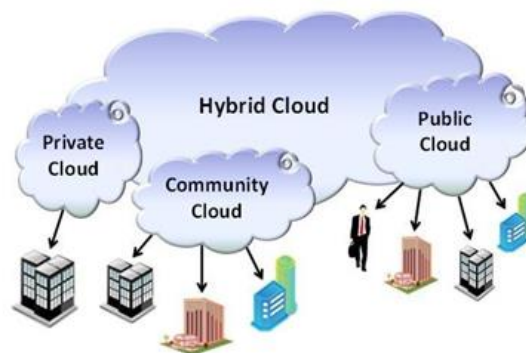
IT services (e.g., networks, servers, storage, applications, and services) are available and shared across multiple applications and in a non-binding manner. Many clients are offered a service from the same visual device.

5. Measured service :

Application usage is tracked for each application and host, which will provide both the user and the service provider with an account of that usage. This is done for a variety of reasons such as monetary monitoring and the efficient use of resources.

II. DEPLOYMENT OF CLOUD COMPUTING

Clouds can usually be installed depending on the owner of the cloud data centers. The cloud space will cover one or more clouds . The following sections provide the division of single cloud sites associated with the presence of a Cloud database and the division of multiple cloud locations according to what type of Clouds space unit is integrated.



- a. **Public cloud** - In public cloud, users have access to external torture services that may be provided by Internet browsers through the web. Users share common cloud infrastructure and that they do not seem to be close to it. although social clouds that measure square are rather less secure, they have significant benefits in cost. For those organizations that can afford a large IT investment and that do not have a lot of confidential information, the public cloud seems to be a reliable option.
- b. **Private Cloud** - The secret function of clouds is within the organization's internal business information center. The great thing here is that it is easy to manage safety, maintenance and improvement and provides consistent management compliance with regard to preparation and use. Non-public cloud is often compared to a computer network. Compared to public clouds wherever all services and applications are hosted by the service provi.
in the camera clouds these square services are integrated and designed for users at the site level. Utilities and applications square measure owned by the organization itself.
- c. **Community Cloud** - A social cloud is a collaborative effort designed to share infrastructure between multiple organizations. It becomes a measure of economic equality and democratic equality. The public cloud is managed and protected by every participating organization or third-party service provider.
- d. **Hybrid Computing** - Hybrid cloud is a combination of two or more clouds (private, public, or public) that remain separate entities but integrated with standard or related technologies that allow data and mobile applications (e.g., cloud computing and cloud computing).

Benefits of Cloud Computing Architecture –

The cloud computing architecture is designed in such a way that :

- Solves latency problems and improves data processing requirements.
- Reduce IT operating costs and provide better access to digital data and tools.
- Helps businesses to easily upgrade and deploy their cloud resources.
- It has a flexible feature that gives businesses a competitive advantage.
- It leads to better disaster recovery and provides higher security.
- Automatically updates its resources.
- Promotes remote operation and promotes teamwork.

Service Models of Cloud Computing

Cloud Computing has various different service models such as Infrastructure as a Service (IAAS), Platform as a Service (PAAS), and Software as a Service (SAAS).

i. Infrastructure as a Service (IAAS)

Cloud buyers can directly use the IT infrastructure (processing, storage, networks, and other basic computer resources) provided by the IaaS cloud. IaaS cloud provides “Virtualization” to integrate / deploy visual resources in the form of an ad to meet the growing or declining demand for the service for cloud clients. An example of IaaS is Amazon EC2.

ii. Platform as a Service (PAAS)

PaaS provides a development platform that supports a complete "Software Lifecycle" that allows cloud users to upgrade their cloud services and applications (e.g., SaaS) directly into the PaaS cloud. The main difference between SaaS and PaaS is that SaaS only handles cloud-based applications while PaaS provides a development platform that handles both completed and ongoing cloud applications. An example of PaaS is the Google App Engine.

iii. **Software as a Service (SAAS)**

Cloud buyers can free up their apps in the hosting environment, which can be accessed online by various clients (e.g. web browser, PDA, etc.) through in-app clients. Examples of SaaS are Salesforce.com, Google Docs, and Google Mail

III. CONCLUSION

Cloud computing is a new technology that has been widely studied in recent years. Currently there are several cloud platforms employed in each commercial and educational environment. How to use these platforms can be a big problem. Throughout this paper, we tend to describe the definition, styles, and features of cloud computing, cloud computing services, learning model and cloud computing challenges. There are a few problems with the cloud computing. As an example of cloud computing power issues, Performance, Service Level Agreement (SLA), information Confidentiality and balance, information Integrity, load balancing, Synchronization in multiple clusters on a cloud platform, and configuration, cloud platform protection.

IV. REFERENCES

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