

Challenges and Trends of Cloud Computing

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ABSTRACT

Cloud computing provides on-demand availability of technical resources in the area of warehouse and computing power with indirect access by the user. This paper describes the new technologies which will be boon with its pros and cons. It is also used to analyze the Trends such as Void, Mash up.

Keywords: Cloud computing, Cloud Media, Streaming, Flexible edge cloud, Media Cloud

1. INTRODUCTION

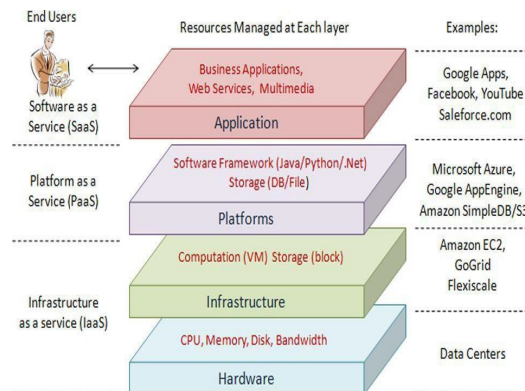
Cloud computing is the use of computing resources, hardware as well as software, that are delivered as a service through a network, typically the Internet. Cloud computing is a universal collection of data which extends over the internet in the form of resources and forms individual units within the environment of virtualization. Held together by providers of infrastructure, service providers and also the consumers, it is then semantically accessed by various users.

Through virtualization technology, it is possible to run just not an application, but also a full server within the Cloud, which reduces the cost of the hardware base in a typical one service, that is, one server model.

2. LAYERED MODEL OF CLOUD COMPUTING

The cloud computing design can be designed right into numerous layers based upon the service they offer throughout customers. The split model includes primarily 4 layers specifically equipment layer, framework layer, system layer as well as application layer [4]. The Application Layer develops the noticeable component of the cloud application and also the layers beneath are

Virtualized for completion individual. A couple of instances of applications in this layer consist of Google Docs, YouTube and so on. The Hardware Layer contains the physical equipment required to accomplish the customer applications in the cloud atmosphere [4] the 3rd party supplier holds the duty to manage and also take care of the computational sources. The Infrastructure Layer additionally called as Virtualization layer that produces the swimming pools of online devices which can be developed and also ruined according to the consumer requires [6] this layer offers the scalability and also versatility to the cloud. The Software Layer is improved the top of framework layer which supplies a computer system as a service. This layer makes it possible for the customers to run their applications.

LAYERED MODEL OF CLOUD COMPUTING**FIG NO 1****3. BUILDING BLOCKS OF CLOUD COMPUTING****➤ COMMUNITY CLOUD**

Community Cloud: Facilities shared by a number of companies for a common reason and also might be handled by them or a 3rd party company as well as hardly ever supplied cloud model.

These clouds are typically based upon an arrangement in between relevant enterprise such as financial or academic companies.

➤ PRIVATE CLOUD

Private cloud is a brand-new term that some suppliers have actually lately made use of to explain offerings that mimic cloud computing on private networks.

It is established within a company's inner business data center. In the private cloud, scalable sources, as well as digital applications, are given by the cloud supplier are merged with each other as well as readily available for cloud customers to share and also make use of. It varies from the general public cloud because all the cloud sources and also applications are taken care of by the company itself, comparable to Intranet performance.

Usage on the private cloud can be a lot more protected than that of the general public cloud as a result of its defined inner direct exposure.

➤ HYBRID CLOUD

Hybrid cloud is a private cloud connected to several exterior cloud solutions, centrally took care of, provisioned as a solitary device, as well as outlined by a safe and secure network .

It supplies digital IT options with a mix of both public as well as private clouds. Hybrid Cloud gives much more safe and secure control of the information as well as applications as well as permits different celebrations to gain access to info online.

It likewise has an open style that enables user interfaces with various other administration systems. Hybrid cloud can explain setup integrating a regional tool, such as a Plug computer system with cloud solutions

➤ PUBLIC CLOUD

Public cloud explains cloud computing in the typical mainstream feeling, where sources are dynamically provisioned on a fine-grained, self-service basis online, through internet applications/web solutions, from an off-site third-party supplier that shares sources as well as costs on a fine-grained energy calculating basis.

It is usually based upon a pay-per-use model, comparable to a pre-paid electrical power metering system which is adaptable sufficient to provide for spikes sought after for cloud optimization

CLOUD DEPLOYMENT MODEL

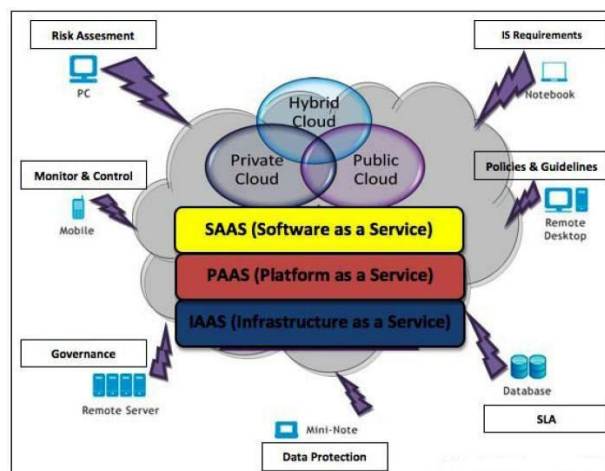


FIG NO 2

4. CREATING A “CLOUD STORAGE” MASHUP FOR HIGH PERFORMANCE, LOW COST CONTENT DELIVERY

Though the cloud storage was introduced before 2 years. It was providing the data storage accessed through the network and processed in different continents that is backed by service level agreement(SLAS) with assurance and uptime targets the benefits provided by SLAS are the developers via provides specific web service APIS. CDN (contract delivery network) is the genuine the data at two cost to with high efficiency, and also not having any ongoing contract obligations.

The CDN is used only for developers for non development it is more different with programmer APIS. This paper is used to explore the design, architecture, implementation and user experts of

Meta content delivery network. Meta content delivery network is used to combine the cloud storage providers with content delivery network that enhance high performance at low cost. It is geographically shared and transact for content creators with easy to use web portal.

ADVANTAGES

- Expert in content development
- Update or delete the existing content development
- High performance at low cost

DISADVANTAGES

- Less user friendly

5. DESKTOP TO CLOUD TRANSFER

Traditional desktop delivery model is the process of utilizing the large number of distributed pc's under operating system with desktop application. It is challenging with high cost, more issues in security, more time consuming which result in low ROI. It has the concern with sensitive information used in compromising stolen laptops or pc's .It provides computation in data enter that allows the user to access their data. The next challenging problem is to transfer the legacy system to desktop clouds with low response time.

ADVANTAGE

- The clouds helps the users with resources efficiently
- Desktop bench makers is done

DISADVANTAGE

- Customization of user need is not done in appropriate manner

6. TOWARDS SERVICE COMPOSITION BASED MOST MASHUP

The hallmark with familiar in industry and academia is the Mash up. It is a haddock composition technology that helps users to access with data from external web source there by creating new services. BPEL and WSCI provides user friendly with flexible as a composition technologies .it has two contribution at first, the mash up architecture is used the current SOA model with enhancing the service composite next ,mash-up component model helps the developers to be expert on non composite service

ADVANTAGE

- More user friendly
- Based on web

DISADVANTAGE

- Data acquisition is not executed well
- In screen scrapping there are issue in integration of data

7. CLOUD MULTIMEDIA PLATFORM

Facebook and flicker are the latest social networking web applications presents more challenges to store and process the user generated content i.e multimedia. The major issue is where to

handle huge amount of data needs special systems with upfront investment cloud computing is the trending technology used for elastic on element unlimited computing resources as a utilizing.

This paper briefly explains the cloud multimedia platform to process huge amount of multimedia warehousing.

CHALLENGES

- Data abstraction
- Simple to implement
- Scalability
- Interoperability
- Distributed data management
- Service orchestration

8. CONCLUSION

The client-based integration or server-based integration is the common dichotomy in cloud computing. The void has the added benefit of involving the support of the local ISP, which facilitates the integration of key functionalities such as security, mobility and QoS. This new dichotomy between the user and cloud based services expands the range of applications that can be migrated away from the user's computer, while avoiding inconveniences of loss of control or data replication over the currently prevailing SaaS model.

9. REFERENCES

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