

An Expository Investigation on Cloud Computing

-J.Punitha¹, Mrs.M.Dukitha², M.Leka³

¹(III-MCA,PMC Tech,Hosur/Anna University,Chennai,India)

²(Asst.Prof.Mrs.M.Dukitha,MCA,M.Phil., Department of MCA,PMC Tech,Hosur/Anna University,Chennai,India)

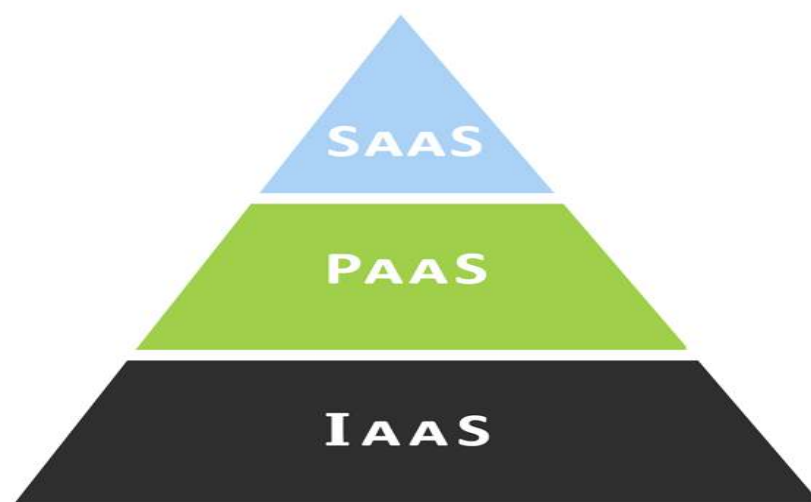
³(II-MCA,PMC Tech,Hosur/Anna University,Chennai,India)

Abstract: Cloud computing is the use of various services, such as software development platforms, servers, storage spaces and software's, over the internet, and also sharing the resources, hardware's through the virtualization concepts. In this paper we discussed about the types, characteristics and services of the cloud computing. The three types of cloud is briefly explained and the services of the cloud is highlighted with an examples and also discuss about difference between the private cloud, public cloud and hybrid cloud with an illustrations.

Keywords: Types of cloud, IaaS (Infrastructure as a Service), PaaS (Platform as a Service), SaaS (Software as a Service)

I. Introduction

Cloud computing means sharing resources, storing and accessing data and programs over the Internet for you computer hardware and harddrive. The cloud is virtualization concept for the Internet. there is a three types of cloud computing, four types of deployment models, and five types of characteristics. The four types of clouds while using a single organizations or multiple institutions. The five types of characteristics as used for sharing resources, multiband expanded services and resource pooling. In this paper this all information' sarediscussedwell.



The Cloud Stack: SaaS is on top because users primarily interact with software hosted on the cloud, and not the platform or infrastructure on which it runs. PaaS allows users to create and deploy applications. IaaS is the infrastructure and hardware that powers the cloud.

Fig1: Cloud stack

II. Types of cloud

In cloud computing three main paradigms of clouds are categorized. There are,

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

III. Infrastructure as a service (IaaS):

Infrastructure as a service (IaaS) is a one type of cloud computing it provides a virtualized communicating resources via and over the internet. IaaS is having the three major sections of a cloud computing technologies, and may along with follow as the software as a service (SaaS) and platform as a service (PaaS).

The IaaS is allow users to run more then one applications too please on cloud hard ware’s of their own choice of the organization. It is Allow the existing applications to be run on a cloud suppliers hardware and virtualized kernals.



Fig2:virtual server instant

Different IAAS depending on type of there service,

1. IAAS: Private cloud
2. IAAS: Dedicated hosting
3. IAAS: Hybrid hosting
4. IAAS: Cloud hosting

1.IAAS : Private Cloud

The secure and costliest particular number of ousted server is dedicated to single client is called a private cloud.

IaaS: Private Cloud

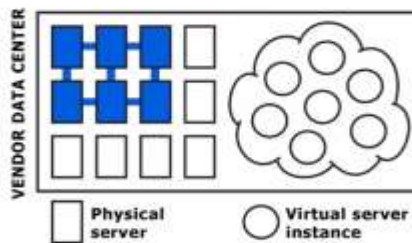


Fig3:private cloud

2.IAAS : Dedicated Hosting:

The client runs a ousted server on demand with price and number of services should matching.

IaaS: Dedicated Hosting

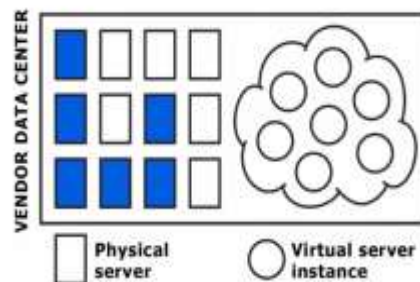


Fig4:dedicated hosting

3. IAAS : Hybrid Hosting

- The ousted server and virtualized server described or rented on demand in based on effort to reduce the cost and also increase system flexibility.

IaaS: Hybrid Hosting

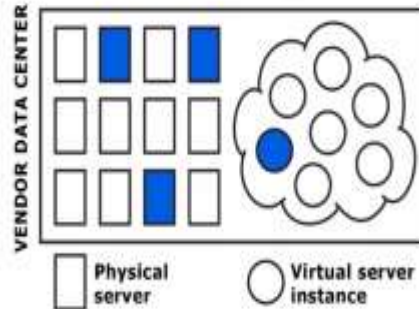


Fig5:hybrid hosting

4. IAAS : Cloud Hosting

- In this cloud hosting the Customer is run the virtual server based on the instance on demand often on hourly basis systems basis.

IaaS: Cloud Hosting

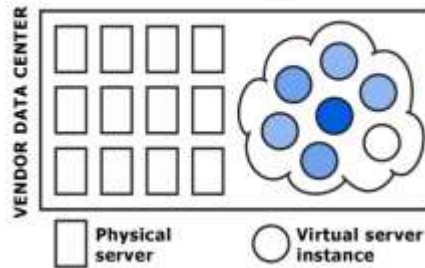


Fig6:cloud hosting

Examples for an IaaS

- [\[AWS\] Amazon Web Services](#) (IaaS Cloud hosting)
- [Rackspace.com](#) (IaaS private, public, and hybrid storage hosting)
- [Gogrid.com](#) (IaaS dedicated, hybrid and cloud hosting)

IV. PaaS (Platform as a Service)

The platform as a service are allows the clients to develop their separate cloud applications for the suppliers particular tools and the languages for the particular applications. The PaaS is also Provides the environment and tools for deloping a sepearte online cloud applications.

Examples:

- Google API engine[Application Programming Interface]
- Azure Microsoft Platform
- Salesforce.com[cloud application]

PROS of PaaS:

- Rapid application support also low cost
- To supported for private and public deployment systems

CONS of PaaS:

- Limited designer to support language and codings.
- Vendor locking Systems. It is very risk to perform.

V. Software as-a Service(SaaS)

The Software as-a Service should Allow the users to execute an existing cloud applications. While off-the-shelf programs are downloaded through the internet and the systems.

Examples:

- Microsoft azoore, google appengine and zoho presentation and access sheets packages
- [pixlr](#), [aviary](#) – This all are the creative SaaS applications and sytems.
- [employease](#), [aws](#), and [salesforce.com](#)– developed industrial applications.

PROS of SaaS:

- Free licensed or paid through usage.
- It is very portable (may able to access for any internet or systems).

CONS of SaaS:

This is not suited for all kind of applications.

VI. Conclusion

Cloud computing is the new machinery development that provides the potential applications for having the greatest influence on the real world applications. It has high beneficial that to be providing the users for the businesses. The users also anguish about who can acknowledge their business data's and having ownership of their particular data.

Rerences

- [1]. Cloud Computing: Overview & Current Research Challenges Mohsin Nazir Department of Information Technology, Central University of Kashmir, India.
- [2]. Cloud Computing : Research Issues and Implications Article (PDF Available)· May 2013 with 1,638 Reads
DOI: 10.11591/closer.v2i2.1963
- [3]. Survey Paper on Cloud Computing
- [4]. **Article (PDF Available)** · April 2014 with 13,656 [Palvinder Singh](#)
- [5]. Next generation cloud computing: New trends and research directions Blesson Varghese a, *, Rajkumar Buyya b a School of Electronics, Electrical Engineering and Computer Science, Queen's University Belfast, UK b Cloud Computing and Distributed Systems (CLOUDS) Laboratory, School of Computing and Information Systems, The University of Melbourne, Australia.
- [6]. Research Agenda in Cloud Technologies Ilango Sriram Department of Computer Science University of Bristol Bristol, UK ilango@cs.bris.ac.uk Ali Khajeh-Hosseini Cloud Computing Co-laboratory School of Computer Science University of St Andrews St Andrews, UK akh@cs.st-andrews.ac.uk.