Cloud Computing: A Cost Effective and Efficient Approach for IT Services

1st Anuksha Koul
Computer Engineering
COEP
Pune,India
email address or ORCID

2nd Anagha Mahure
Computer Engineering
COEP
Pune,India
email address or ORCID

3rd Given Payal Madavi
Computer Engineering
COEP
Pune,India
email address or ORCID

***Abstract*—This document is a model and instructions for LaTeX. This and the IEEEtran.cls file define the components of your paper [title, text, heads, etc.]. *CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.**

***Index Terms*—component, formatting, style, styling, insert**

I. Introduction

Cloud computing sets the giant stride for a new era of computing globally [0]. Cloud computing actually changes the way and manner applications are developed and maintain as well as the processes in which infrastructure are run by users. Cloud computing, also known as on-demand computing, is a kind of internet-based computing, where shared resources and information are provided to computers and other devices on demand. It is a model for enabling ubiquitous, on-demand access to a shared pool of configurable computing resources [0]. Cloud computing and storage solutions provide users and enterprises with various capabilities to store and process their data in third-party data centers. It relies on sharing of resources to achieve coherence and economies of scale, similar to a utility (like the electricity grid) over a network. At the foundation of cloud computing is the broader concept of converged infrastructure and shared services. The "Cloud" in simpler term also focuses on maximizing the effectiveness of the shared resources. Cloud resources are usually not only shared by multiple users but are also dynamically reallocated per demand; this can work for allocating resources to users. This approach helps maximize the use of computing power while reducing the overall cost of resources by using less power, air conditioning, rack space, etc. to maintain the system. With cloud computing, multiple users can access a single server to retrieve and update their data without purchasing licenses for different applications. Cloud Computing permits the usage of information technology on the basis of effective functionalities on-demand by users. The cloud technology offers lots of possibilities to businesses and organization having an inadequate capital, lack of human resources, and also lack access to marketing network. The rapid development of cloud technology indicates certainly non reduction in terms of acceptance and frequent utilization from different sectors by emerging countries like India, Singapore, America and others. According to 2016 BSA Global Cloud Computing Scorecard, estimates that by 2019 global market will exceed US$130 billion, The Scorecard positions the "IT infrastructure and policy environment — or cloud computing readiness — of 24 countries that account for 80 per cent of the world's IT markets", that Cloud computing as a current IT invention, has further supplement innovative measurement to that significance by increasing access to technology that pushes for economic growth generally at all levels. But upon all these underlying possibilities the cloud technology brought into businesses in emerging countries a lot of challenges were faced that results to low implementation and will be discussed and recommend ways so as to improve the level of implementing the technology.

II. Literature Review

Cloud computing evolved from several technologies and business approaches that emerged over the years [0] the basic concept of Cloud Computing is separating the application from the operating system as well as the hardware its self. This processes of separation brought about the underlying technology of cloud computing called Virtualization. Emerging Trends in Big Data, IoT and Cyber Security ISBN: 978-93-86238-93-1 8 Virtualization plays a vital role in cloud computing processes [0]. It is a method of installing and organizing computing resources. It separates the different levels of the application system comprising the hardware, software, data, networking, storage etc. It also breakdowns the division between the data centre, servers, storage, networking, data and the physical devices, by recognizing dynamic architecture, then attains the goals of organizing centralized and making use of dynamically the physical resources and virtual resources, improving the flexibility of the system, reducing the cost, improving the service and decreasing the risk of management. Cloud computing acceptances generally are attractive in planning businesses for more profitability, success and cost management. Most emerging Countries are not an exception their role in the service provision sector thereby making some giant strives and increasing their efforts to create more awareness and contribute substantially in helping companies migrate to the cloud emphasized that the cloud technology saves costs for

servers and storage, offers speed in processes and streamlines application deployment without upfront capital, that is why many organizations are now considering acceptance of cloud computing to provide more efficient and cost effective network services while other are afraid of the challenges. For those countries to overcome the challenges that lead to low acceptance some obstacles need to be addressed. However, it is no coincidence that business executives in emerging countries have developed a limitless desire for technology in order to drive and transform their businesses. [0]Business and technology are inseparable that makes it difficult to determine which one can work without one where profit maximization (revenue increase / cost reduction) is an essential performance indicator upon which business successes are measured.

III. Public Cloud

A public cloud environment is maintained by an outsourced cloud provider and is reachable to many businesses through the internet on a pay-per-use model. This distribution model provides services and organization to businesses who want to save money on IT operational costs, but it's the cloud provider who is responsible for the invention and safeguarding of the resources. Public clouds are model aimed at minor with average magnitude businesses with a constricted budget requiring a quick and easy platform in which to deploy IT resources. Merits of a public cloud Easy scalability No geographical restrictions Cost effective Highly reliable Easy to manage Demerits of a public is Not examine the safest option for sensitive data

IV. Private Cloud

This cloud distribution model is modified infrastructure maintained by a single business. It offers a precise environment in which contact to IT resources is additionally centralized within the business. The present exemplary perhaps visibly introduced either obtainable handled internal. Even though secluded cloud introducing obtainable valuable, as largest productions it could be action a developed equal of safety and extra self-sufficiency to modify the storing, interacting and calculate mechanisms toward ensemble their IT necessities.

V. Cloud Services

Following are three foremost service models of cloud computing — Infrastructure as a Service (IaaS) Platform as a Provision (PaaS) Program as a Provision There are pure changes among the three and what they can suggestion a occupational in rapports of storing and basis combining, then they can too cooperate through individually additional method of wide-ranging prototypical of cloud computing.

cloud.jpg

Fig. 1. Working Model of Cloud Computing

References

[1] https://www.bing.com/search?q=link+for+
[2] https://www.ijsr.net INTERNET SOURCES
[3] www.leadingedgetech.co.uk/it-services/it...
[4] www.sam-solutions.com/blog/four-best-cloud...
[5] myventurepad.com/the-pros-and-cons-of-hybrid