Cloud Computing Toward as an updated version of utility computing

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Abstract— Cloud computing describes computation, software, data access, and storage services that do not require end-user knowledge of the physical location and configuration of the system that delivers the services.

What is Cloud Computing?

Some analysts and vendors define cloud computing narrowly as an updated version of utility computing—basically virtual servers available over the Internet. While, others go very broad; arguing that anything you consume outside the firewall is "in the cloud."

What are some of the Cons of Cloud Computing?

Critics of the cloud say that Cloud Computing will lower the need of support and hardware experts in house... Some jobs that can be eliminated or out-sourced include: Support and Hardware Resources, i.e. Network Administrators, Software developers, and Quality Assurance teams.

What are some of the Pros of Cloud Computing?

Cloud computing can greatly decrease overhead expenses and make available software and information that would otherwise be too costly to implement or create in-house.

So, there will always be opportunities for professional and technological growth, but we will have to wait and see how far the cloud can take us.

Index Terms— Computation, Software, Data access, Storage services, cloud, firewall and virtual server.

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EXECUTIVE SUMMARY

In the past decade, the advent of Internet has opened up several exciting new opportunities for business excellence, cost effectiveness and efficiency. Cloud Computing is the latest in such innovations that has brought computing power within reach of every organization. Cloud computing describes a new supplement, consumption and delivery model for IT services over the Internet.

Cloud computing offers the computing processing power, storage, network bandwidth, software usage, software development, testing, security, identity etc., as services over the Internet. This model offers in the immediate near future.

WHAT IS CLOUD COMPUTING?

Cloud computing is a technology that uses the internet and central remote servers to maintain data and applications. Cloud computing allows consumers and businesses to use applications without installation and access their personal files at any computer with internet access. This technology allows for much more efficient computing by centralizing storage, memory, processing and bandwidth.

A SIMPLE EXAMPLE OF CLOUD COMPUTING IS YAHOO EMAIL OR GMAIL ETC.

➢ A style of computing where massively scalable IT-enabled capabilities are provided "as a service" over the network.

➢ A situation in which computing is done in remote location ie, out in the clouds, rather then on your desktop or portable device.

➢ The answer to this question will vary, but here are our thoughts. Some analysts and vendors define cloud computing narrowly as an updated version of utility computing—basically virtual servers available over the Internet. While, others go very broad; arguing that anything you consume outside the firewall is "in the cloud."

➢ However, cloud computing can be defined simply as internet based computing with shared information, resources and software that are provided in real time to large audiences. The main focus is to extend or enhance IT's current capabilities through the internet. Cloud computing takes many forms such as: SaaS (software as a service), utility computing, Web services, Platform as a service, MSP (managed service providers), Service commerce platforms, and Internet integration. Cloud computing offers its user services on a demand basis which can vary from very little to a large scale amount. All services and platforms are also generally maintained by the hosting company and not the end user.

PRIMARY NEEDS OF CLOUD COMPUTING:

You don't need software or a server to use them. All a consumer would need is just an internet connection and you can start sending emails. The server and email management software is all on the cloud (internet) and is totally managed by the cloud service provider Yahoo, Google etc. The consumer gets to use the software alone and enjoy the benefits.

Ideal Cloud Computing:

• Low cost for users and providers
• Independence of device and software.

- Efficient utilization of all resources.
- Constant or near-constant uptime through the use of resource of distribution.
- Ability to continually add new users and applications by easily increasing resources when necessary.

Data is secure with policies to protect its security

WHAT NOT IS CLOUD COMPUTING?

- MYTH 1:Is it an architecture or an infrastructure.
- MYTH 2: Grip Computing and Cloud Computing are same.
- MYTH 3: SaaS is a Cloud.
- MYTH 4: Cloud Computing is for scientists and enterprise   only.
- MYTH 5: All remote computing is Cloud Computing only.
- MYTH 6: Cloud is a network.
- MYTH 7: The Cloud eliminates private networks.

UNFORTUNATELY, ALL THESE ARE WRONG MYTHS!!WHAT CAN I DO WITH IT?

- It's all in the cloud…
- Email
- Website
- Database
- Mass email
- Project Management
- Snail Mail
- Storage of Documents online.
- Voice Mail
- Key Characteristics
- Data stored on the cloud.
- Software and Services on the Cloud-Access via web browser.
- Based on Standards and Protocols- Linux, Ajax, Lamp.
- Accessible from any device.

RECENT ACHIEVEMENTS

- ☐ Cloud Software as a service (SaaS).

-use provider's application over a network.

- ☐ Cloud Platform as a Service (PaaS).

-deploy customer created application to a cloud.

- ☐ Cloud Infrastructure as a Service (IaaS).

-Recent processing, storage network, network capacity, and other fundamental computing resources.

- ☐ Cloud Hardware as a Service (HaaS).

    -Reduce cost, less failure and crashes.

LATEST EXAMPLES

- ☐ Software as a Service (SaaS):
    -salesforce.com

-Gmail

-Zoho

-FaceBook

- ☐ Platform as a Service (PaaS):
    - 3Tera
    - Google Application Engine
    - Coghead
    What makes the Difference?
- ☐ Infrastructure as a Service (IaaS):
    -Amazon AWS

 -Joyent

    -Mosso

    -Nirvanix

Advantages

RISKS IN CLOUD COMPUTING

- ☐ **Regulatory Compliance:**

    -When outsourcing to a provider, customer are responsible for security and integrity of their own data, even when it is held by the third party provider.

- ☐ **Data Location and Privacy Restrictions:**

    -US & EU have different privacy standards, client information subject to different laws.

- ☐ **Data segmentation/User Access:**

    -Finding ways to make sure employees receive adequate access.

- ☐ Recovery:

    -Data segmentation makes back-ups more difficult.

- ☐ **Logging and Investigative support:**

Harder to know who altered the data and where they came from.

CONCLUSION AND FUTURE SCOPE

- ☐ Thus cloud computing provides super-computing power. This cloud of computers extends beyond a single company or enterprise
- ☐ In future, the security and reliability shall be improved by the introduction of globally accepted standards.

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