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Why do we need Cloud Computing

Cloud Computing already commands 60 billion dollars in global market, and is growing at a rapid pace. It provides major opportunities to telecommunication service providers to reduce cost, generate new revenues and differentiate in the cloud ecosystem with the network services.

What is cloud computing?

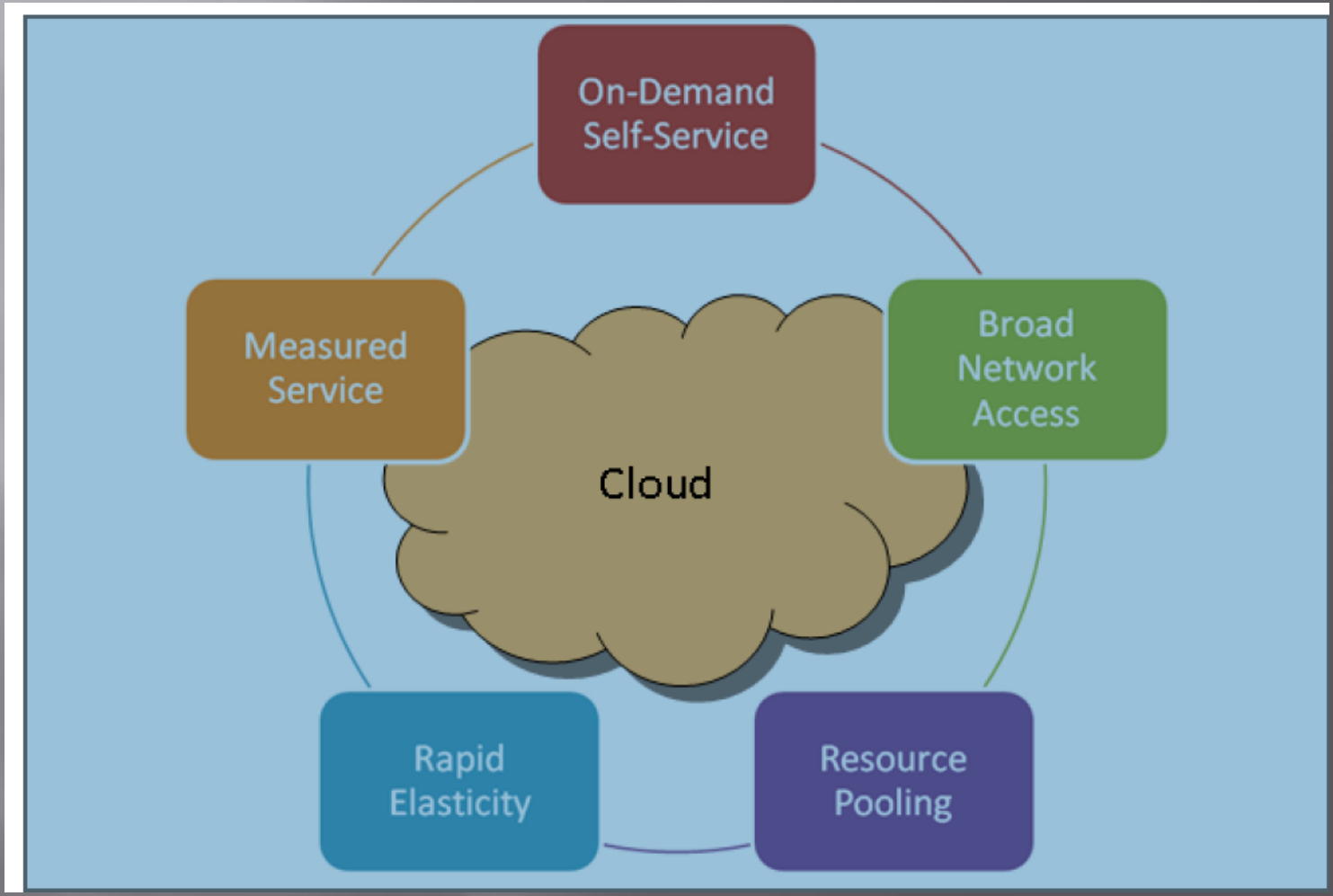
Cloud computing is a new business model that promotes a new way of managing infrastructure and service delivery. It represents the next evolution in computing where shared resources are made available and accessed as service over

1: Internet
2: Intranat
3:Dedicated networks

Resources are available and accessed when needed.

The consumer pays in the same way as for other household utilities (water, gas, electricity bills etc).

Essential characteristics of cloud computing

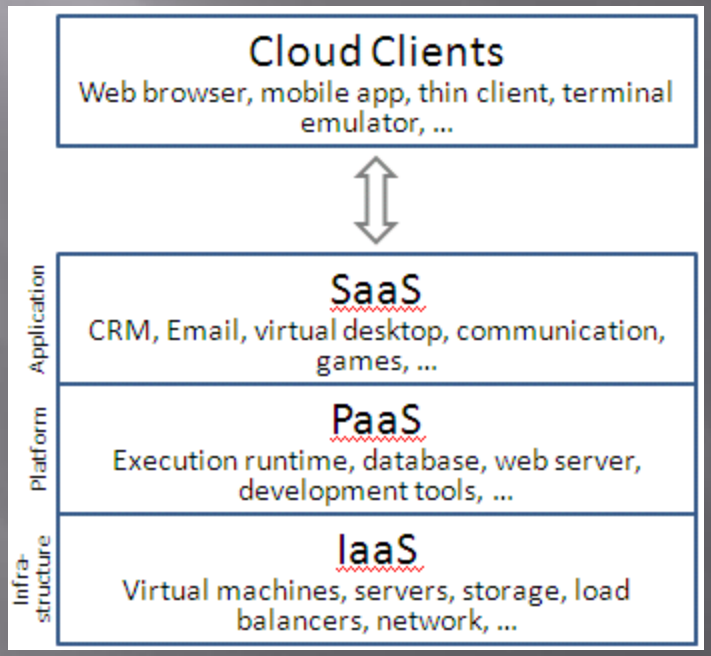


Essential characteristics of cloud computing

- On demand self service: Computing capabilities such as server time and network storage can be done automatically without humans interaction with each service's provider.
- Broad network access: Capabilities are avialable over the network and accessed through standard mechanisms like mobile phnes, labtops and PDAs.
- Resource pooling: The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model. There is location independence in the system where the consumer has no control or knowledge over the exact location of provided resources.
- Rapid elasticity: Capabilities can be rapidly and elestically provisioned, in some cases automatically, to quickly scale out and be rapidly released to quickly scale in. The capabilities available for provisioning often appear to be unlimited and can be purchased in any quantity at any time.
- Measured Service: Resource usage can be monitored, controlled and reported providing transparency for both provider and consumer of the utilized service.

Service models of cloud computing

Cloud computing providers offer their services according to three fundamental models.



These models allow users to run applications and store data online.

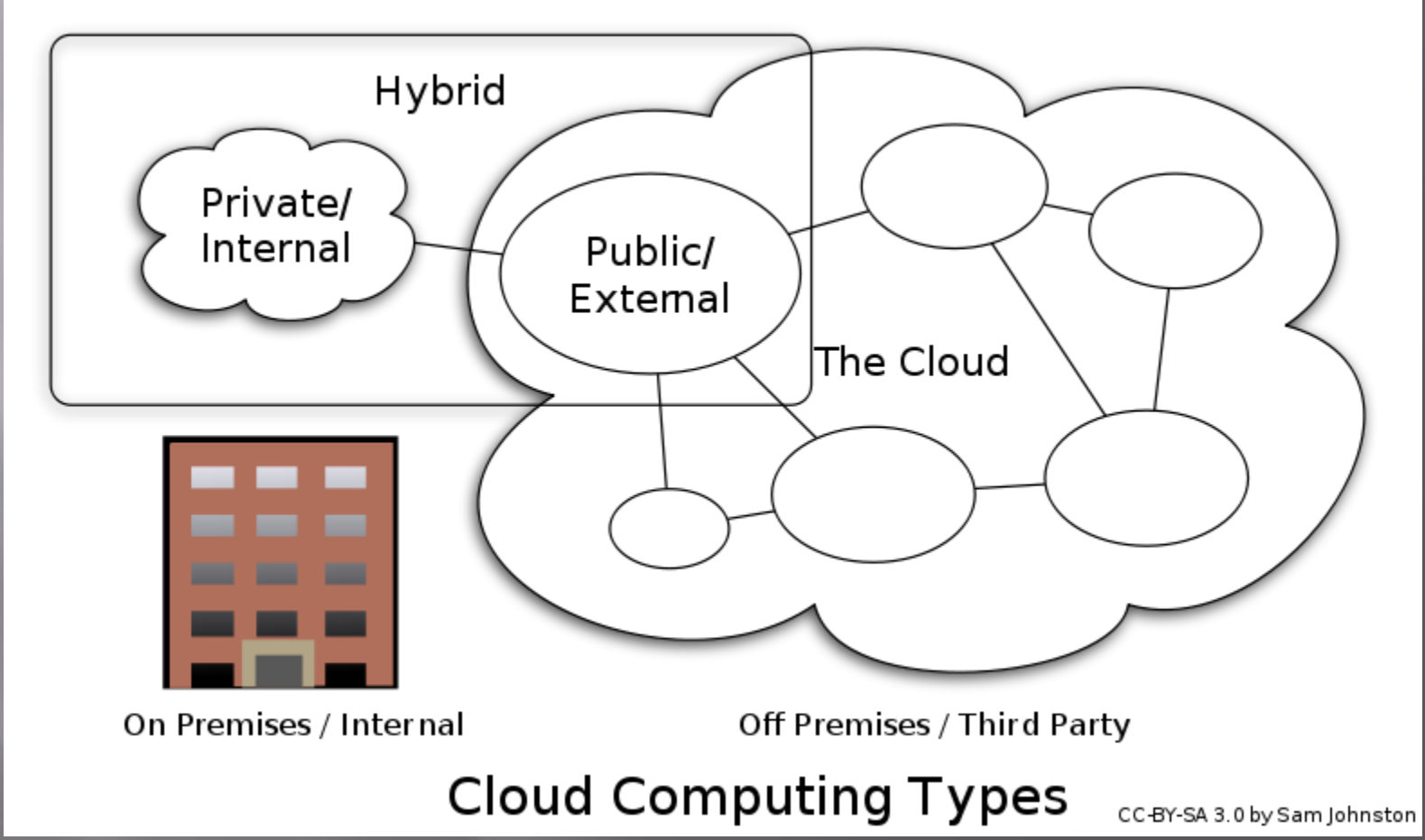
Service models of cloud computing

- Cloud Software as a Service (SaaS)
- The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The consumers do not manage the cloud infrastructure and platform on which application is running. The applications are accessible from various client devices such as email and virtual desktop. Saas allows user to run existing online applications.

- Cloud Platform as a Service (PaaS)
- The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages and tools suported by the provider. The consumer does not manage or control the underlying infrastructure but control the deployed applications. Paas allows user to create their own cloud applications using supplier-specific tools and languages.

- Cloud Infrastructure as a Service (IaaS)
- The capability provided to the consumer is to provision processing, storage, networks and other fundamental computing resources where the consumer is able to deploy and run arbitrary software . The consumer does not manage or control the underlying cloud infrastructure but control the deployed applications, operating systems and storage. IaaS allows user to run any applications they please on cloud hardware of their own choice.

Deployment models of cloud computing



Deployment models of cloud computing

- **1: Private Cloud:** The cloud infrastructure is operated solely for an organization. It may be managed by the organization or a third party.

- **2: Community Cloud: The cloud infrastructure is shared by several organizations and supports a specific community that has shared concerns like policy, security etc.**

3: Public Cloud: The cloud infrastructure is made available to the general public or a large industry group and is owned by an organization selling cloud services.

4: Hybrid cloud: The cloud infrastructure is a composition of two or more clouds (private, community or public) that remain unique entities but are bound together, offering the benefits of multiple deployment model.

Questions

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http://www.youtube.com/watch?v=ae_DKNwK_ms