Cloud Architecture

Assessment preparation

CLOUD COMPUTING IN PLAIN ENGLISH

Cloud computing offers immense potential advantages, including lower IT costs and greater business flexibility. Fully benefiting from cloud computing, though, requires understanding how service is provided, what an organization's needs are, the potential vulnerabilities associated with such a migration, and how various compliance and assurance needs that must be met.

SAAS

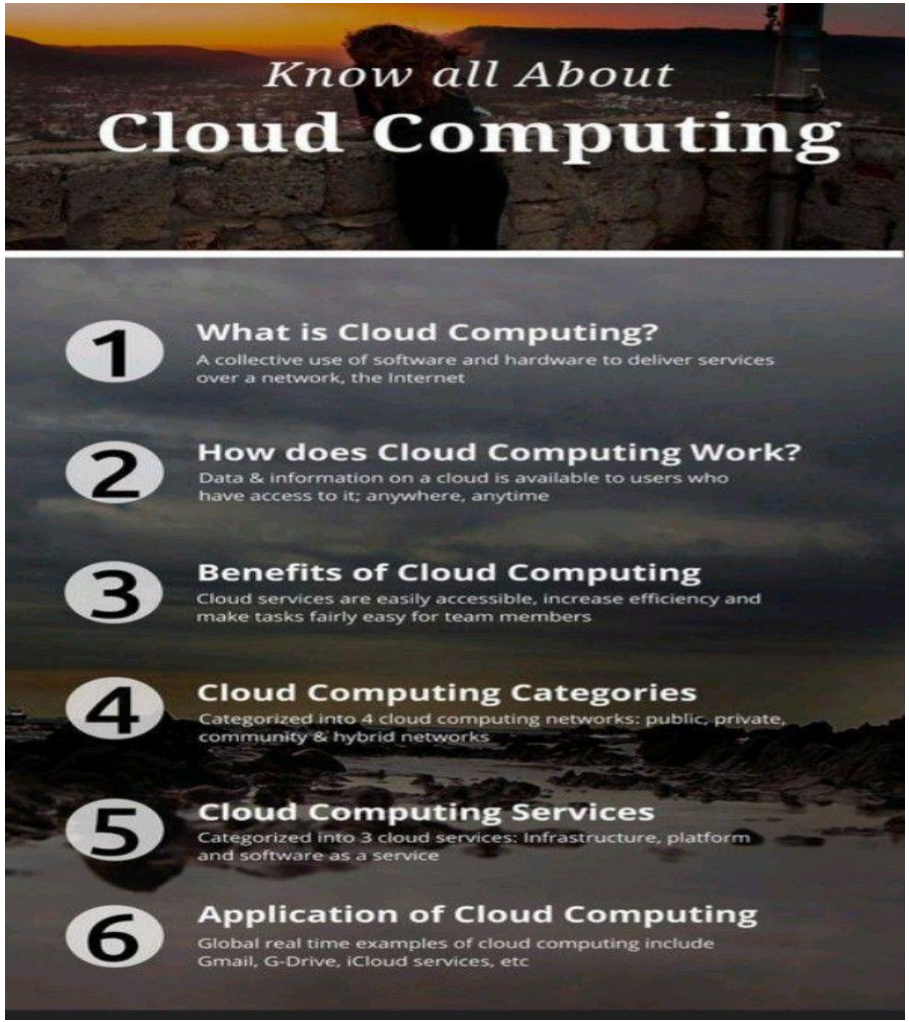
SaaS is the least extensive and most common forms of cloud computing, with the software developer providing hosting of a software application. Customers may access a SaaS application via a standard Internet browser.

PAAS

PaaS enables companies to deploy their own or acquired applications within a cloud computing infrastructure, rather than being solely dependent on SaaS vendors' offerings. Microsoft's Windows Azure platform is an example of PaaS, as is Google's App Engine platform.

IAAS

IaaS offers provision processing, networking components, data storage and other functions. It represents the most extensive level of cloud computing. IaaS enables customers to have not only extensive software customization options, but also full virtual server capabilities and immense data storage capacity.


Know all About
Cloud Computing
1
What is Cloud Computing?
A collective use of software and hardware to deliver services over a network, the Internet
2
How does Cloud Computing Work?
Data & information on a cloud is available to users who have access to it; anywhere, anytime
3
Benefits of Cloud Computing
Cloud services are easily accessible, increase efficiency and make tasks fairly easy for team members
4
Cloud Computing Categories
Categorized into 4 cloud computing networks: public, private, community & hybrid networks
5
Cloud Computing Services
Categorized into 3 cloud services: Infrastructure, platform and software as a service
6
Application of Cloud Computing
Global real time examples of cloud computing include Gmail, G-Drive, iCloud services, etc

ON-PREMISE VS CLOUD

In-house Server

1. Expensive Capital Expenditure
2. Costly to maintain and keep up to date
3. Difficult to upscale when needed
4. Need internal admin support

VS

Cloud Server

1. Lower resources cost
2. Affordable, stable and pay monthly
3. Easy to scale up and add new resources whenever required
4. Require stable internet connections

Internal Storage

1. Expensive than cloud-based storage
2. Pay for the unused resources
3. Should be in-house to upload data
4. Need to install licensed application to access files

VS

Cloud Storage

1. Users are allowed to pick their required plans and resources
2. Pay only for what you use
3. Supports upload from anywhere across devices
4. Comes with in-built applications (SaaS)

On-premise Security

1. Should regularly be updated to keep it effective
2. Requires dedicated internal resources to maintain
3. Unsecured, data can be easily stolen or lost
4. Complicated and slow recovery process

VS

Cloud Security

1. Easy to maintain, and adapt to new security measures
2. Data are backed up instantaneously
3. Better resiliency on natural disorders or data loss
4. Data can be recovered immediately

What is cloud computing?

It refers to the use of computing power that is located elsewhere, in "*the cloud*" of remote networks

It's really just a name for storing and processing data online. For example, many of us already use cloud computing when using the internet for storing photos and emails.

WHERE'S MY DATA?
Data typically goes to large data centres in the network, depending on the type of cloud.

What are the different types of cloud?

PRIVATE
resource dedicated to one customer

PUBLIC
resources shared by multiple customers

HYBRID
customized combination of shared and dedicated resource

COMMUNITY
dedicated resource for a group of customers

What are the different cloud services?

SOFTWARE-AS-A-SERVICE
It enables a user to be able to use an application without installing it on a computer or other type of device.

PLATFORM-AS-A-SERVICE
It allows third parties to build applications without buying hardware or maintaining software.

INFRASTRUCTURE-AS-A-SERVICE
It provides hardware capacities as demanded by users, to run their own software services.

CLOUD SERVICES & EXAMPLES?

http://go.thecustomizewindows.com/cloud-computing

What are the benefits of cloud?

Improving efficiencies can result in savings of 80% of the costs of managing IT hardware.

Worldwide market for cloud services will be worth € 106.7 BN by 2014.

Cloud will add € 763 BN in productivity to the top economics over the next five years.

WHY ARE COMPANIES SHIFTING TO THE CLOUD?

- Cost effective
- Easy to Implement
- Secure & Reliable
- Flexible & Scalable
- Interoperable

Quit The Jargon

A SIMPLE GUIDE TO CLOUD COMPUTING

It is important to know that there are different Cloud Models and there are different deployment strategies, each providing businesses with different levels of flexibility and control.

So, what are the different CLOUD MODELS?

Iaas

/'Iaas/
(Infrastructure-as-a-Service)

1. This model provides all the building blocks for Cloud Computing.
2. These hardware-related services include things like storage, computers or virtual servers.

PaaS

/'Paas/
(Platform-as-a-Service)

1. With this approach, the organisation doesn't need to manage any underlying infrastructure, allowing you to focus on the deployment and management of business apps.

SaaS

/'Saas/
(Software-as-a-Service)

1. As the name suggest, this model includes a complete software offering managed and run on the Cloud by a service provider.
2. A great example of SaaS is web-based email apps like Gmail from Google servers.

What are the different deploying strategies to CLOUD COMPUTING?

Public Cloud

/'Public Cloud/

1. This deployment model sees your entire Cloud infrastructure located on the premises of a Cloud Computing company that offers you a Cloud service.
2. As a business owner, you have no physical control over the infrastructure and share your service provider's resources with their other

Private Cloud

/'Private Cloud/

1. A private network functions entirely for a single customer or organisation. It's not shared with others and can be hosted externally or on-premise.
2. Levels of security and control are highest when using a private network.

Hybrid Cloud

/'Hybrid Cloud/

1. With hybrid Cloud, businesses will deploy a mix of both public and private Cloud depending on their needs.
2. This suits organisations wanting to host critical business apps on private Clouds and apps with fewer security concerns on public Clouds.