**AMAZON WEB SERVICES:**

What is Cloud Computing?

* **Cloud computing**, storing and accessing data and programs over the Internet.

### Why Cloud Computing?

### Reliability, Rising needs of internet capacity, Reduce costs and remove IT obstacles in business.

### Flexibility, data recovery, little or no maintenance, easy access and a higher level of security.

### Advantages of The Cloud Technology

### Cost efficiency

### Elasticity and Flexibility

### Reliability

### Increase Security

### Manageability

### Availability

### Centralization

### Auto-updating

### No maintenance

### Disadvantages of The Cloud Technology

### Internet dependency

### Downtime

### Loss of control

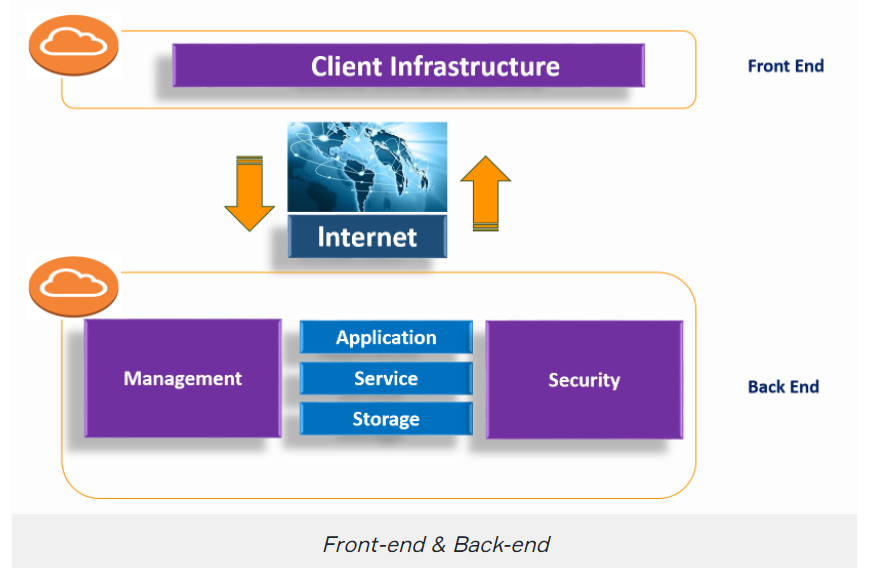
### Lack of support

### Evolution of the Cloud Computing

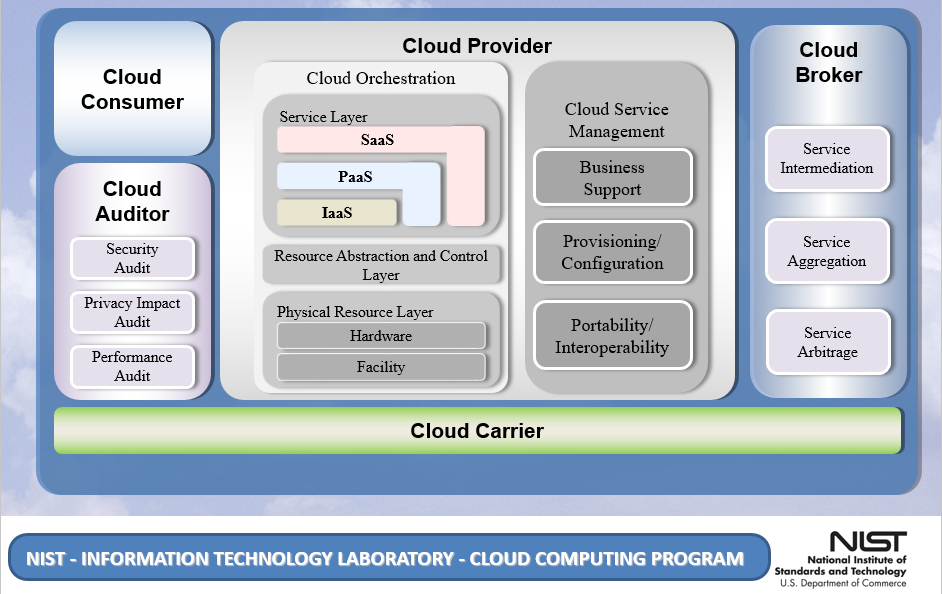
### Amazon Web Services (AWS), which launched its public cloud in 2002

### In 2006, Amazon launched Amazon Web Service (AWS) on a utility computing basis, Amazon EC2 and Amazon S3

## Cloud Computing Architecture



## Cloud Computing Architecture



### Cloud Deployment Models

* Public Cloud: Platforms that transfer data to all individuals or organizations with internet access.

**Ex:** Amazon Elastic Compute Cloud (EC2)

### Public Cloud: Provides the same Public Cloud benefits but uses private hardware dedicated to individuals, businesses or groups.

### Community Cloud: A shared platform, usually with shared data and data management considerations, between organizations.

### Hybrid Cloud: Integrated environment of public and private infrastructure.

### Cloud Service Models

### On-Premise: All archives and data are displayed on the server source and not transferred to the internet environment.

### IaaS - Infrastructure as a Service: It's Cloud Computing's most basic service and the instant computing infrastructure which serves, manages, and monitors over the internet.

### PaaS - Platform as a Service: PaaS is a development framework for developers that is designed to create, test, run and manage applications for the programmer.

* SaaS - Software as a Service:A software distribution model in which applications are managed by a third-party provider and made available to customers on the Internet.

### Comparison of Cloud Service Models

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### Virtualizations

* Virtualization refers to the operation of multiple operating systems called guest by sharing the same physical equipment resources.
* It allows you to use a physical machine's full capacity by distributing its capabilities among many users or environments.

### What is AWS?

### AWS stands for Amazon Web Services that offers various IT services on demand using distributed IT infrastructure and offers flexible, reliable, scalable, and cost-effective cloud computing solutions.

## AWS Infrastructure

* An AWS Region is a physical location in the world where it has multiple Availability Zones.
* Availability Zones consist of one or more discrete data centres, each with redundant power, networking, and connectivity, housed in separate facilities.
* The AWS Cloud operates in over 80 Availability Zones within over 25 geographic Regions around the world.



### Edge Locations

### An edge location is where end-users access services located at AWS and used for caching content. Edge locations serve requests for CloudFront and Route 53.

### AWS Local Zones

### AWS Local Zones place compute, storage, database, and other select AWS services closer to end-users.

### What is AWS Free Tier?

### The AWS Free Tier provides customers the ability to explore and try out AWS services free of charge up to specified limits for each service. You can explore more than 85 products and start building on AWS using the free tier.

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