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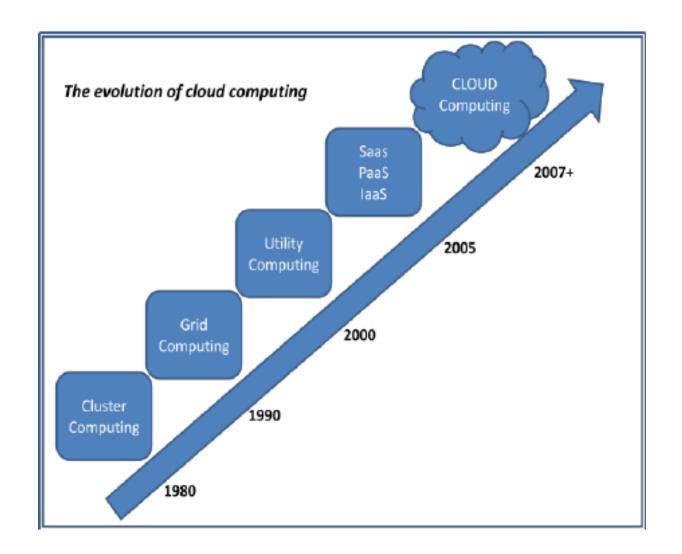


# **Cloud Computing Essentials**

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# **Evolution of Cloud Computing**





#### **Definition**



Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction

-NIST

### **Definition**



Computing Resource - Networks, servers, storage, applications, and services



# **Characteristics of Cloud Computing**



- On-demand self service
- Broad Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service
- Performance
- Reduced Cost
- Outsourced Management
- Reliability
- Multi-tenancy

# **Characteristics of Cloud Computing**



### **On-demand self service**

Resources should be provisioned by the users without requiring interactions with cloud service provider

The process of provisioning resources is automated.

### **Characteristics of Cloud Computing**



### **Broad Network Access**

Accessing from heterogeneous client platforms such as workstations, laptops, tablets and smart phones should be possible

# **Characteristics of Cloud Computing**



# **Resource Pooling**

Cloud Service Provider pools the resources for multiple tenants

Multiple users to be served by the same physical hardware

# **Characteristics of Cloud Computing**



# **Rapid Elasticity**

Resources are rapidly provisioned and should be elastic

Scaled up or down based on demand.

# **Characteristics of Cloud Computing**



# **Measured Service**

Pay-per use model

User charged based on specific metric

# **Characteristics of Cloud Computing**



### **Performance**

Consistent performance even during dynamic workload

# **Characteristics of Cloud Computing**



### **Reduced Costs**

Cost benefits for the storage resources

### **Characteristics of Cloud Computing**



# **Outsourced Management**

Outsource the IT infrastructure requirements from external cloud service providers

# **Characteristics of Cloud Computing**



# Reliability

Applications hosted in cloud are reliable, because the underlying IT infrastructure is managed by cloud service provider

### **Characteristics of Cloud Computing**



# **Multi-tenancy**

Multiple users share the same shared resource

Every component in the system architecture is shared among the multiple tenants



# **THANK YOU**

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