



SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore - 641 107

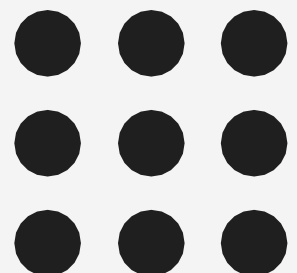
Accredited by NAAC-UGC with 'A' Grade

Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai

Department of Information Technology

25-Aug-22

SNSCE / IT/ CS8791 Cloud Computing





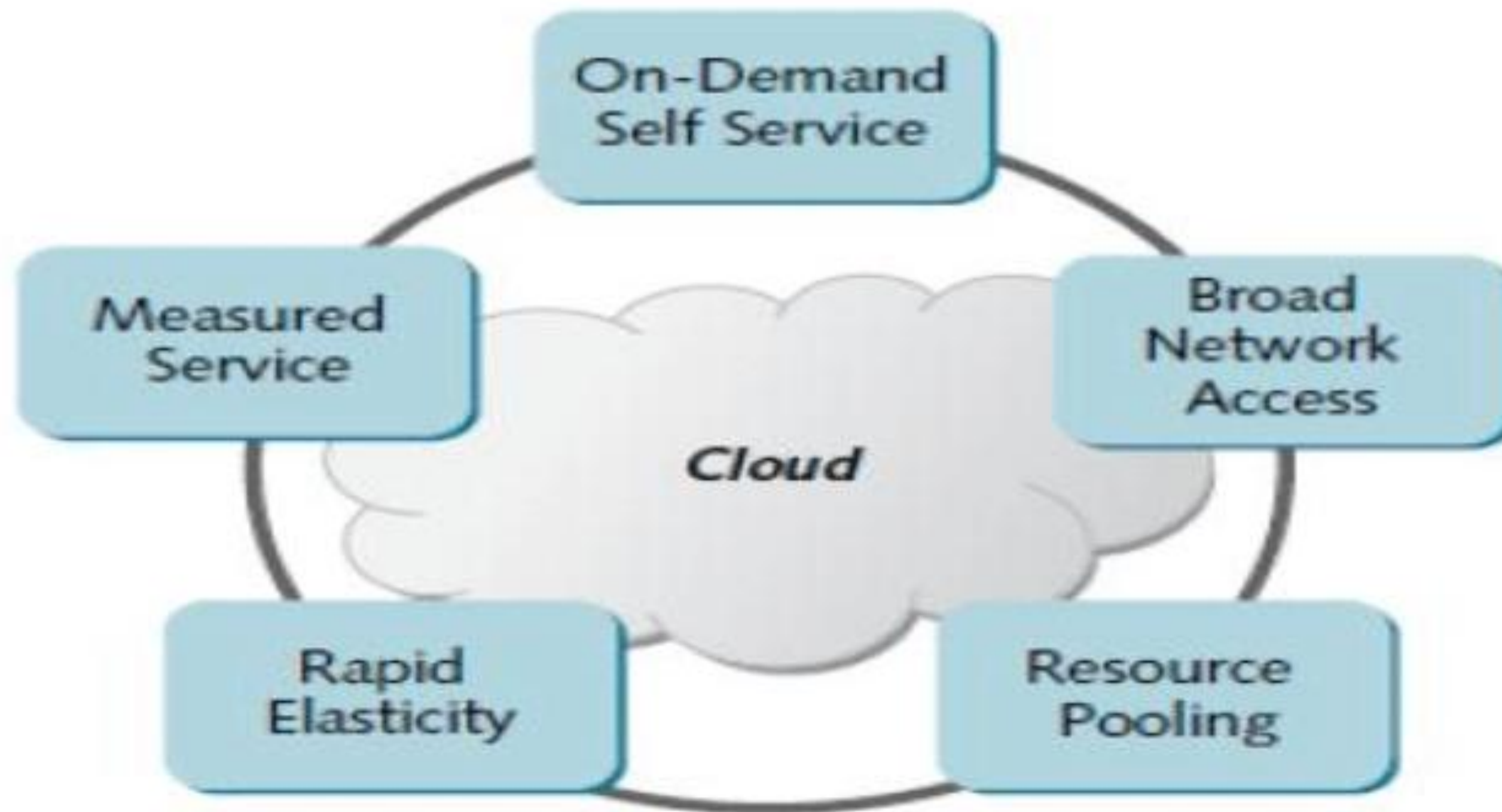
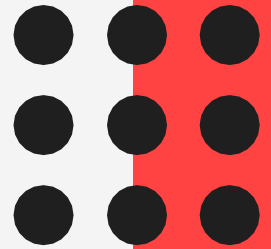
On demand provisioning

Prepared by
T.R.Lekhaa,
AP/IT

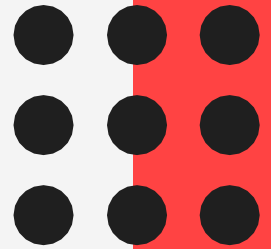


25-Aug-22

Characteristics of Cloud

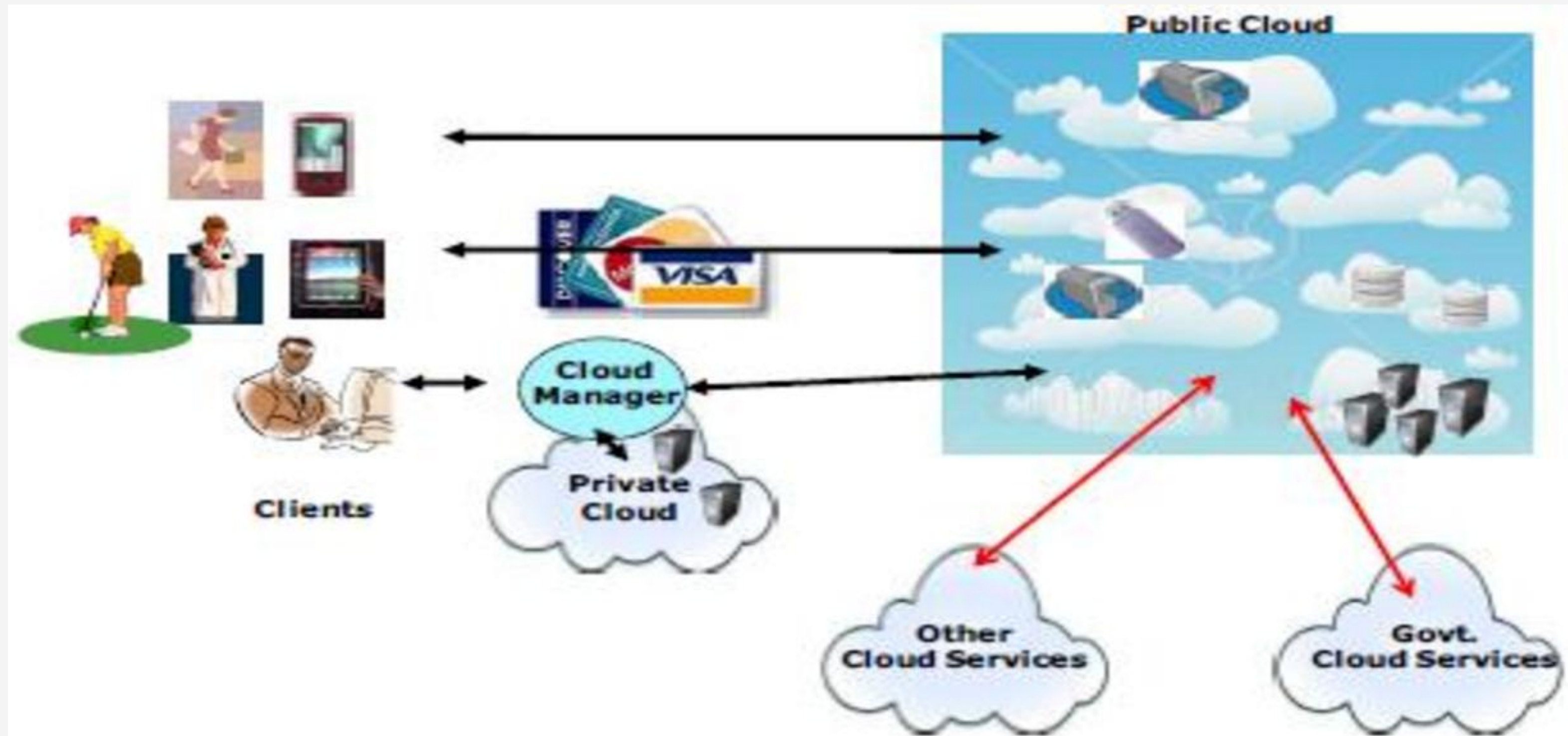


Benefits of Cloud



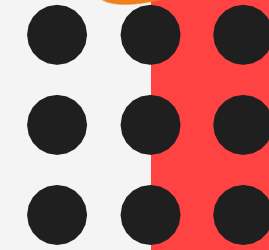
<https://youtu.be/Fg9tDDrtOYc>

On demand Provisioning





Definition of On demand provisioning



- Delivery model in which computing resources are made available to the user as needed.
- The resources may be maintained within the user's enterprise, or made available by a cloud service provider.
- When the services are provided by a third-party, the term cloud computing is often used as a synonym for on-demand computing.



Attributes

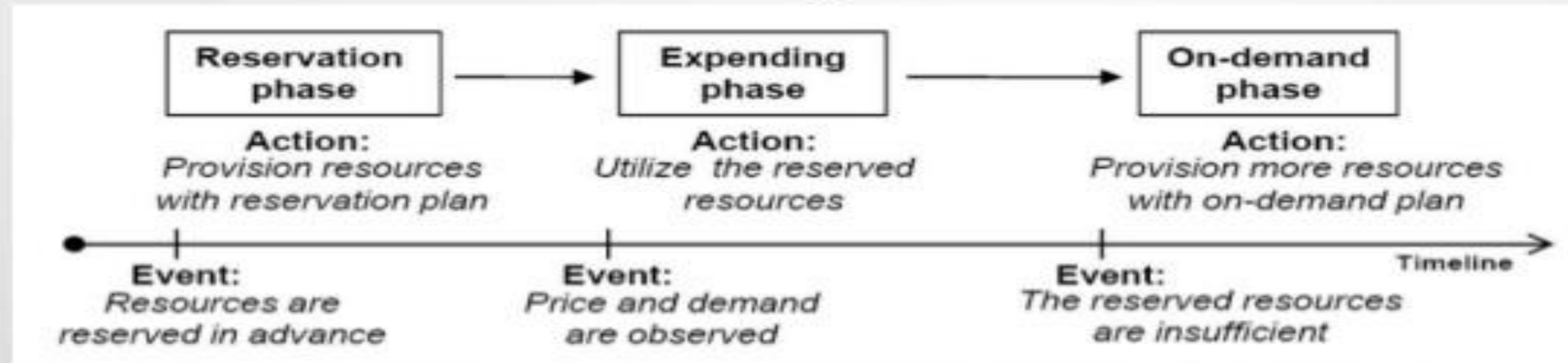


- Scalability
- pay-per-use
- self-service

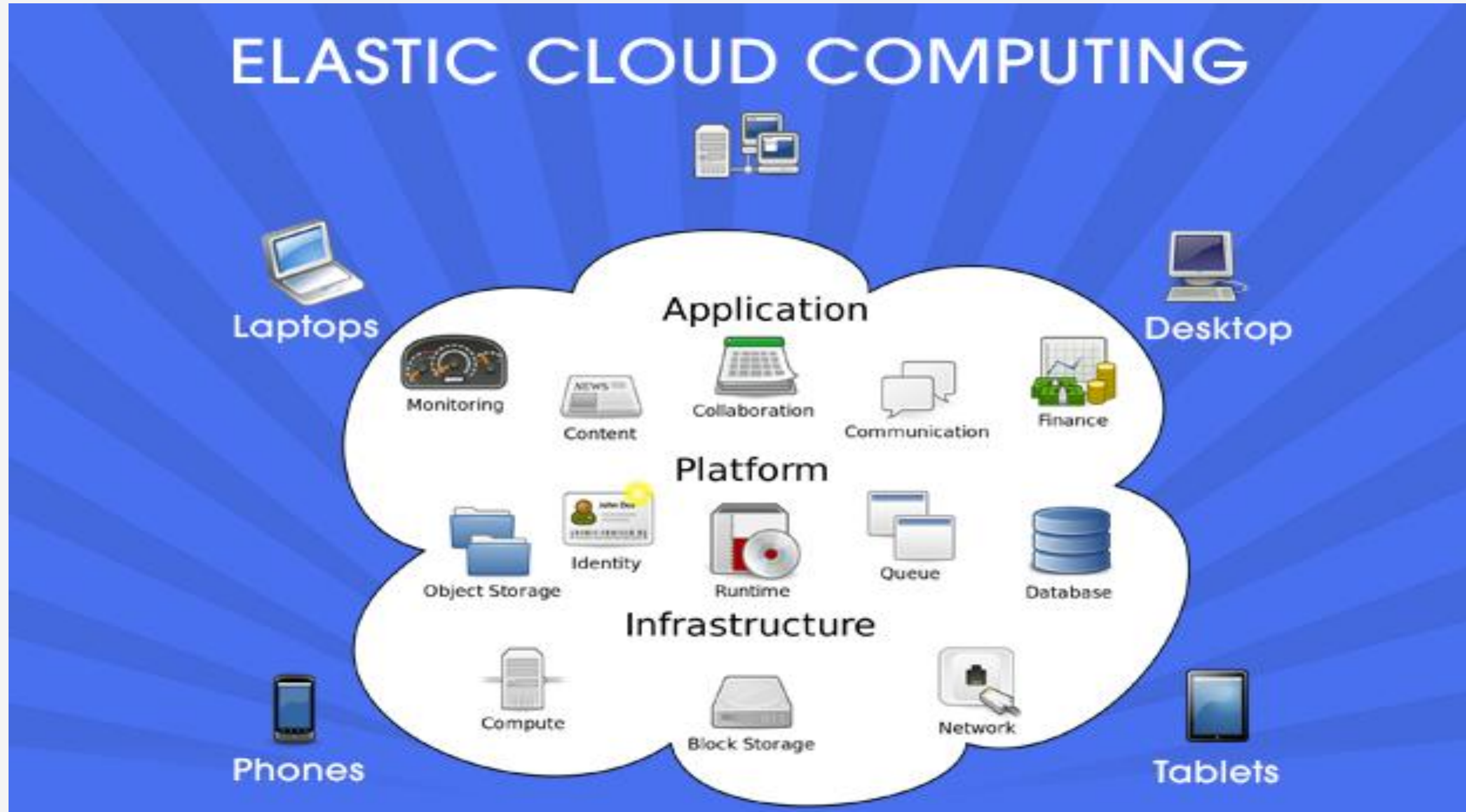
Cloud provisioning in three models

Advanced	Dynamic	User self-provisioning
Customer signs formal contract with cloud provider	Customer can purchase cloud resources based on average consumption needs	Customer selects cloud resources and services via a web interface
Cloud provider prepares and distributes agreed-upon resources in advance of start of service	Cloud provider deploys and adjusts resources to match customer's usage demands	Cloud provider makes resources available shortly after purchase
Flat-fee or monthly bill	Pay-per-use billing	Customer pays for services with a credit card

Provisioning Phases



- Provisioning phase: time interval when resources need to be provisioned or utilized
 1. Reservation phase: reserve resources
 2. Expending phase: utilized the reserved resources
 3. On-demand phase: provision more resources on-demand





Definition of Elasticity

Definition : *scalability*, which means the ability to scale up.

Scalability : handle bursts of traffic or resource-heavy jobs.

Rule of thumb is that if you provision more resources then you can handle more traffic.

There are two ways to scale:

Vertical – Adding resources to existing infrastructure.

Horizontal – Provisioning more infrastructure and distributing workloads across multiple instances.



Scalability Vs Elasticity

- Elasticity covers the ability to scale up but also the ability to **scale down**.
- Quickly provision new infrastructure to handle a high load of traffic.
- After a scaled up period, your infrastructure can scale back down, meaning you will only be paying for your usual resource usage and some extra for the high traffic period.
- When resource needs meet a certain threshold , the system “knows” that it needs to de-provision a certain amount of infrastructure, and does so.



Benefits of elasticity



- Ability to scale up and handle high volumes of traffic
- Ability to scale down and use less resources when needed
- Keeps your users happy and your reputation good (scaling up)
- Saves you money (scaling down)