



# **SNS COLLEGE OF TECHNOLOGY**

**Coimbatore-35**

**An Autonomous Institution**



Accredited by NBA – AICTE and Accredited by NAAC – UGC  
with 'A++' Grade

Approved by AICTE, New Delhi & Affiliated to Anna  
University, Chennai

## **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

### **19ECE308- WIRELESS TECHNOLOGIES FOR IOT**

III ECE / VI SEMESTER

UNIT 3 – DATA COLLECTION, STORAGE AND COMPUTING USING A CLOUD

PLATFORM

TOPIC 4 –Platform as a Service



# What has IaaS done?

- IaaS provides virtual machines and resources such that IaaS vendors can segment resources for each user
- IaaS providers can also make users do not need to purchase the hardware
- IaaS can make better use of resources

## But is it enough?

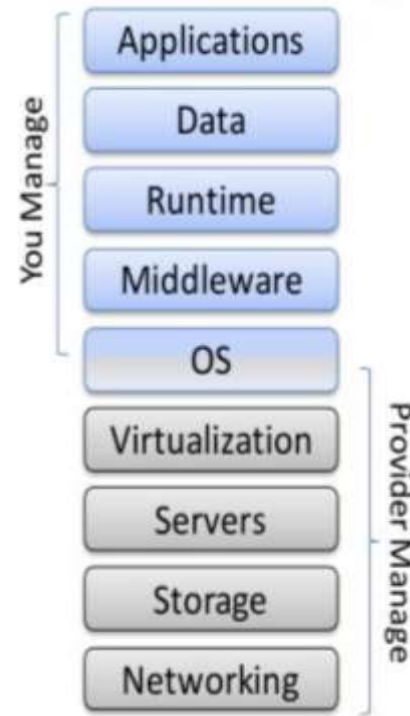


# What IaaS can do?

- Traditional IT



- IaaS





# IaaS is not enough

- IaaS provides many virtual or physical machines, but it cannot alter the quantity automatically
- Consumers might
  - Require automatic make-decisions of dispatching jobs to available resources
  - Need a running environment or a development and testing platform to design their applications or services



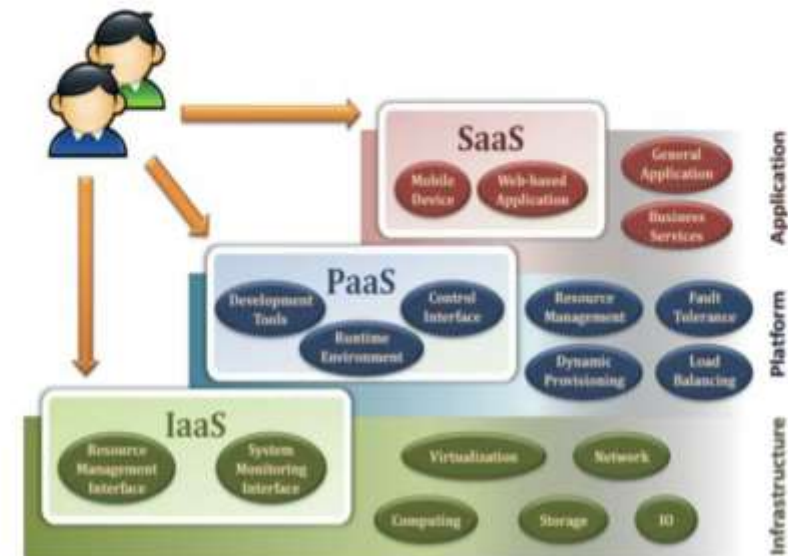
# PaaS



- PaaS provides a series of properties that can satisfy user's requirements
- PaaS guarantees the quality of resources, services and applications



**Platform as a Service (PaaS)** is a computing platform that abstracts the infrastructure, OS, and middleware to drive developer productivity



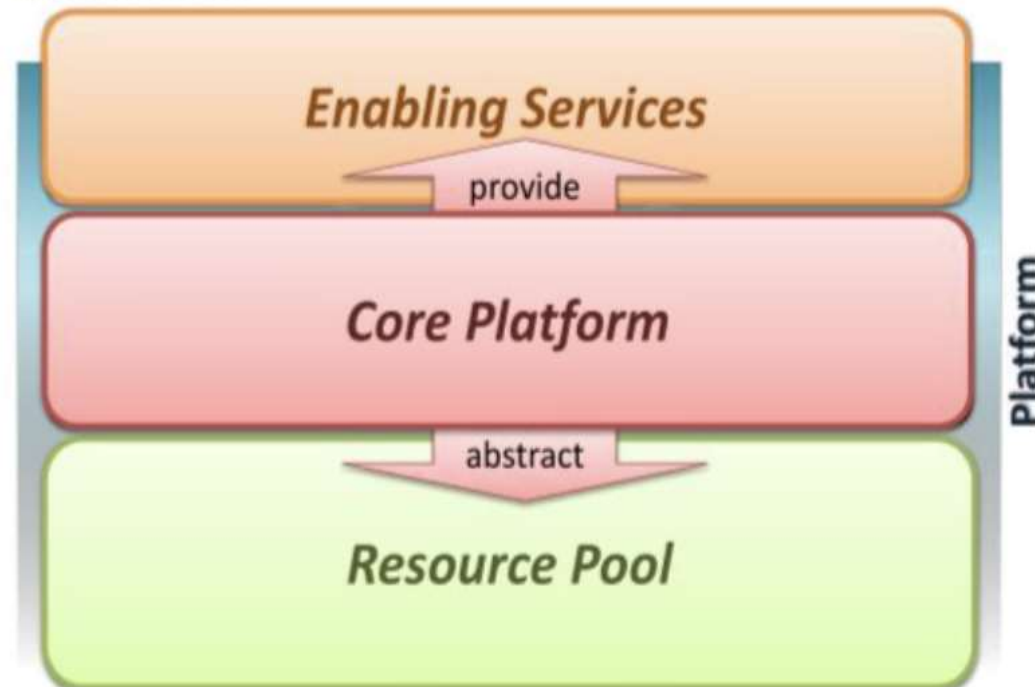




# PaaS



- Deliver the computing platform as a service
  - Developing applications using programming languages and tools supported by the PaaS provider
  - Deploying consumer-created applications onto the cloud infrastructure





# Resource Pool

- PaaS providers define the smallest unit of resource
  - 1GHz CPU computation ability
  - 1GB storage space
  - 1MB memory capacity
  - ...etc
- PaaS consumers can require units on their demand
- Consumers may not be aware of whether provided resource is dedicated or shared



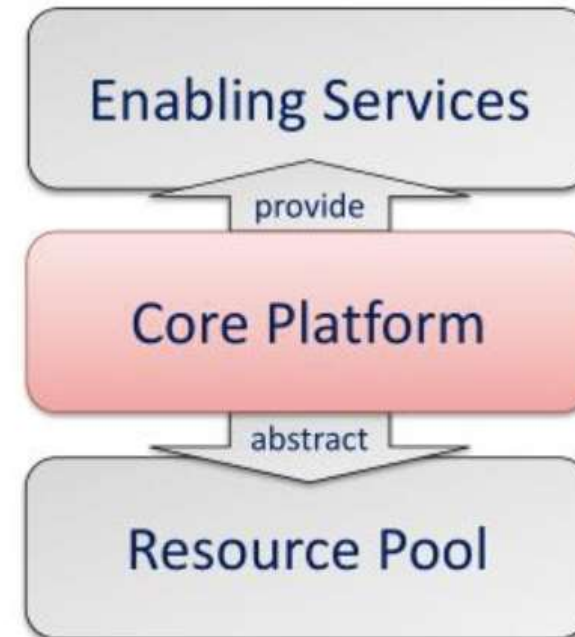


# Core Platform



To provide a reliable environment for running applications and services

- Core Platform provides basic functionalities of a PaaS environment
- Act as a bridge between consumer and hardware







# Enabling Services

- Enabling Services are the main focus of consumers
- Consumers can make use of these sustaining services to develop their applications
  - **Programming IDE**
    - Integrate the full functionalities supported from the runtime environment
    - Provide some development tools, such as profiler, debugger and testing environment
  - **System Control Interfaces**
    - Make the decision according to some principles and requirements
    - Describe the flow of installation and configuration of resources



# Assessment



**Analyse the requirements of consumer with respect to IaaS**

- Large-scale resource abstraction and management
- Requirement of large-scale resources on demand
- Running and hosting environment
- Automatic and autonomous mechanism
- Distribution and management of jobs
- Access control and authentication



**Thank You**