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 COMPUTINGUSINGACLOUD PLATFORM

TOPIC 2 –Cloudservicemodels, IoT Cloud- based data collection

Four cloud deployment models

- Public Cloud: provisioned by educational institutions, industries, government institutions or business or enterprise
- Private Cloud: exclusive for use by institutions,industries, business or enterprise and is meant for private use in the organisation by the employees
- Community Cloud: Exclusive for use of a community formed by institutions, industries, businesses or enterprises, and for use within the community
- Hybrid Cloud: A set of two or more distinct clouds (public, private or community) with distinct data stores and applications that are binding between them deploy the proprietary or standard technology

Everything as a Service (XaaS)
Service Model

- Cloud Computing = SaaS + Paas + IaaS + DaaS
- Software as a service
- Platform as a Service
- Infrstructure as a Service
- Data as a Service

SaaS

- The responsibilities of the cloud service provider—
- The software control,
- Maintenance,
- Up-dation to new version and infrastructure, and
- Platform and resource requirements

PaaS

- Responsibilities of the cloud service provider as per the developers' requirements of —
- The platform,
- Network,
- Resources,
- Maintenance,
- Updation, and
- Security

PaaS Examples

- Google App Engine,
- MS Azure
- Xively, Nimbits,
- AWS IoT,
- IBM IoT Foundation,
- Cisco IoT, IOx and Fog,
- TCS CUP

IaaS

- IaaS the responsibilities of the cloud service provider—
- A service model where the applications develop or use the infrastructure (computing systems, network and security) which made available through Internet on demand on rent (pay as per use in multi tenancy model) by a developer or user

DaaS

- Responsibilities of a data centre service provider—
- Service model where the data store or data warehouse s made available through Internet on demand on rent (pay as per use in multi tenancy model) to an enterprise
- Data centre management, 24×7 power, control, network, maintenance, scale up, data replicating and mirror nodes and systems as well as physical security

Google App Engine, MS Azure, Xively, Nimbits, AWS IoT, IBM IoT Foundation, Cisco IoT, IOx and Fog, TCS CUP

Platform as a Service

DB

DB

Infrastructure as a Service

DW

Amazon Web Services and Virtual Servers, GoGrid Virtual Servers, EC2 , Cloud.com Open Source IaaS, Cisco IaaS

SW

Software as a Service

SW

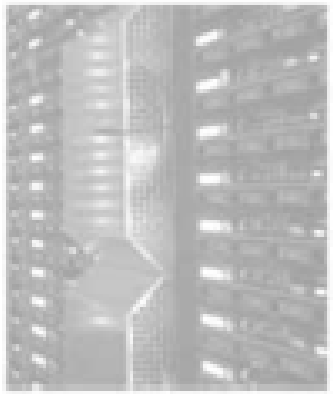
SW

SW

Google Docs, Office 365, MS Windows Live, MS Exchange Labs., Salesforce.com, extensible CRM

Data as a Service

Data Centre



Tata Communications, GoGrid virtual servers, Amazon Virtual Servers, EC2