# SNS COLLEGE OF ENGINEERING

**Kurumbapalayam(Po), Coimbatore – 641 107**

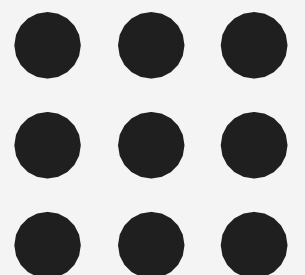**Accredited by NAAC-UGC with 'A' Grade**

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

## Department of Information Technology

## Course Name – Internet of Things

## III Year / V Semester
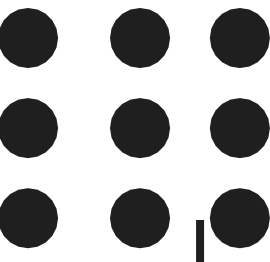
## Unit 3- INTERNET OF THINGS CHALLENGES

# Cloud Data Monitoring

- Cloud monitoring is a method of reviewing, observing, and managing the operational workflow in a cloud-based IT infrastructure.
- Manual or automated management techniques confirm the availability and performance of websites, servers, applications, and other cloud infrastructure.

**Database monitoring**

Because most cloud applications rely on databases, this technique reviews processes, queries, availability, and consumption of cloud database resources. This technique can also track queries and data integrity, monitoring connections to show real-time usage data. For security purposes, access requests can be tracked as well.

**Website monitoring**

A website is a set of files that is stored locally, which, in turn, sends those files to other computers over a network. This monitoring technique tracks processes, traffic, availability, and resource utilization of cloud-hosted sites.

**Virtual network monitoring**

This monitoring type creates software versions of network technology such as firewalls, routers, and load balancers. Because they're designed with software, these integrated tools can give you a wealth of data about their operation.

## Cloud storage monitoring

This technique tracks multiple analytics simultaneously, monitoring storage resources and processes that are provisioned to virtual machines, services, databases, and applications. This technique is often used to host infrastructure-as-a-service (IaaS) and software-as-a-service (SaaS) solutions.

## Virtual machine monitoring

This technique is a simulation of a computer within a computer; that is, virtualization infrastructure and virtual machines. It's usually scaled out in IaaS as a virtual server that hosts several virtual desktops. A monitoring application can track the users, traffic, and status of each machine.

# Cloud Data Exchange (CDE)

- **Cloud Data Exchange** (CDE) is a data connection capability for SAS Data Preparation on SAS Viya.
- Cloud Data Exchange securely copies data from an on-premises data store to a cloud-based instance of SAS Viya for use in SAS Viya applications.
- SAS Data Agent performs high-volume data transfer from a remote SAS Data Agent to SAS Viya in support of big data.
- A **Command-line interface** (CLI) is also provided for administration and control of the customer data.
- Cloud Data Exchange also allows SAS **Cloud Analytic Services** (CAS) to read and write data that is stored on a remote SAS Data Agent server.
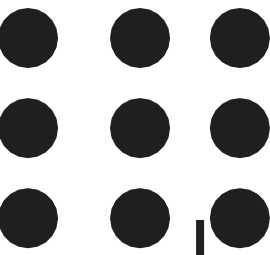
Global Cloud Exchange
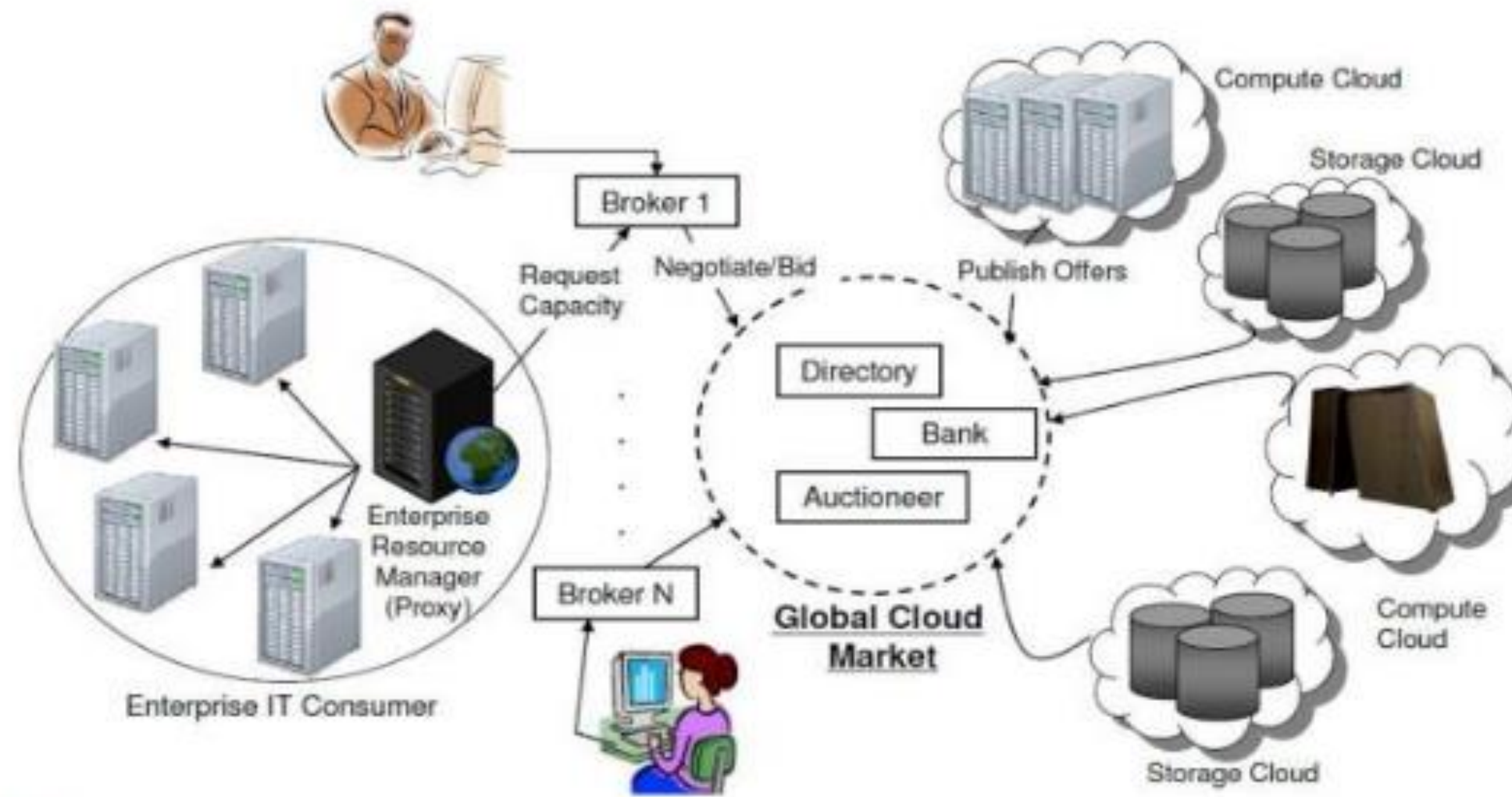
# Global Cloud Exchange

- Market directory
- Banking system
- Brokers
- Price setting mechanism
- Admission control mechanism
- Resource management system
- Consumers utility function
- Resource management proxy

# Benefits

- Bridge disparate Clouds
- Allows consumer to choose provider that suits their requirements
- Help providers to perform effectively
- Help Brokers to gain their utility through difference in price.