



# **SNS COLLEGE OF ENGINEERING**

Kurumbapalayam (Po), Coimbatore – 641 107

**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 COMPUTER SCIENCE AND ENGINEERING(IoT and  
Cybersecurity Including BCT)**

**COURSE NAME : cloud service management**

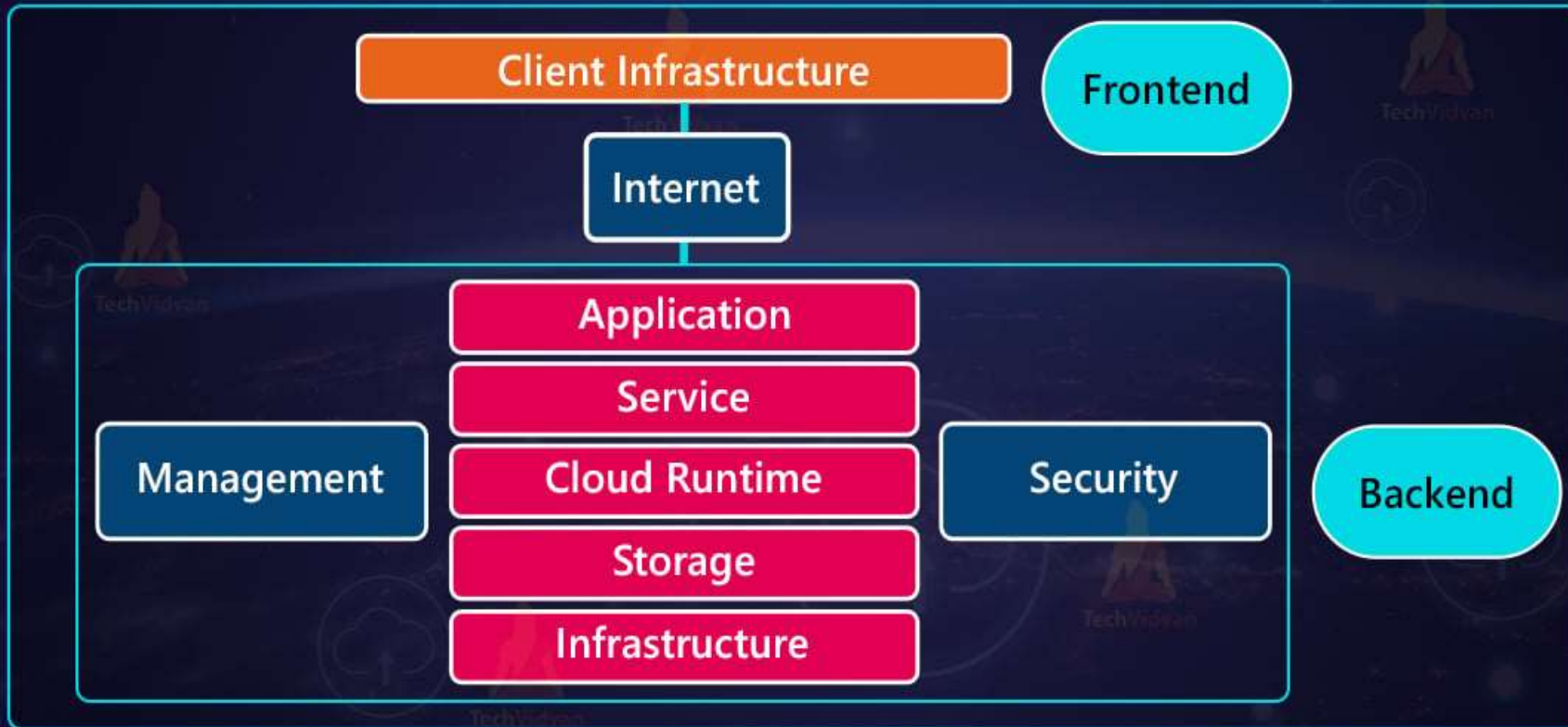
**IV YEAR / VII SEMESTER**

**Unit II-**

**Topic : Cloud Service Architecture**



# Cloud Computing Architecture





## What is cloud architecture?

Cloud architecture is a key element of building in the cloud. It refers to the layout and connects all the necessary components and technologies required for [cloud computing](#).

Migrating to the cloud can offer many business benefits compared to on-premises environments, from improved agility and scalability to cost efficiency. While many organizations may start with a “lift-and-shift” approach, where on-premises applications are moved over with minimal modifications, ultimately it will be necessary to construct and deploy applications according to the needs and requirements of cloud environments.

## Cloud architecture defined

Cloud architecture refers to how various cloud technology components, such as hardware, virtual resources, software capabilities, and virtual network systems interact and connect to create cloud computing environments. It acts as a blueprint that defines the best way to strategically combine resources to build a cloud environment for a specific business need.



## Cloud architecture components

Cloud architecture components include:

- A frontend platform
- A backend platform
- A cloud-based delivery model
- A network (internet, intranet, or intercloud)

Below is a list of the main backend components:

**Application:** The backend software or application the client is accessing from the front end to coordinate or fulfill client requests and requirements.

**Service:** The service is the heart of cloud architecture, taking care of all the tasks being run on a cloud computing system. It manages which resources you can access, including storage, application development environments, and web applications.



**Runtime cloud:** Runtime cloud provides the environment where services are run, acting as an operating system that handles the execution of service tasks and management. Runtimes use virtualization technology to create hypervisors that represent all your services, including apps, servers, storage, and networking

**Storage:** The storage component in the back end is where data to operate applications is stored.

**Infrastructure:** Infrastructure is probably the most commonly known component of cloud architecture. In fact, you might have thought that cloud infrastructure *is* cloud architecture.

**Management:** Cloud service models require that resources be managed in real time according to user requirements. It is essential to use management software, also known as middleware,

**Security:** As more organizations continue to adopt cloud computing, implementing cloud security features and tools is critical to securing data, applications, and platforms.