



# SNS College of Engineering

An Autonomous Institution

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

Redesigning Common Mind & Business Towards Excellence



Build an Entrepreneurial Mindset Through Our Design Thinking FrameWork

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

# Data Collection, Storage and Computing using a Cloud platform



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# Cloud Computing Paradigm

- Cloud computing means a collection of services available over the Internet. Cloud delivers the computational functionality.
- Cloud computing deploys infrastructure of a cloud-service provider. The infrastructure deploys on a utility or grid computing or web services environment that includes network, system, grid of computers or servers or data centres.
- Just as we—users of electricity—do not need to know about the source and underlying infrastructure for electricity supply service, similarly, a user of computing service or application need not know how the infrastructure deploys or the details of the computing environment.
- Just as the user does not need to know Intel processor inside a computer, similarly, the user uses the data, computing and intelligence in the cloud, as part of the services. Similarly, the services are used as a utility at the cloud



# Cloud Computing Paradigm

## Cloud Platform Services

Cloud platform offers the following:

Infrastructure for large data storage of devices, RFIDs, industrial plant machines, automobiles and device networks, Computing capabilities, such as analytics, IDE (Integrated Development Environment) Collaborative computing and data store sharing

- Cloud Platform Usages Cloud platform usages are for connecting devices, data, APIs, applications and services, persons, enterprises, businesses and XAAS.
- An application or service executes on a platform which includes the operating system (OS), hardware and network. Multiple applications may initially be designed to run on diversified platforms (OSs, hardware and networks).
- Applications and services need to integrate them on a common platform and running environment.
- Cloud storage and computing environment offers a virtualised environment, which refers to a running environment made to appear as one to all applications and services, but in fact physically two or more running environments and platforms may be present.



# Cloud Computing Paradigm

- Cloud Computing Features and Advantages • Essential features of cloud storage and computing are:
- On demand self-service to users for the provision of storage, computing servers, software delivery and server time
- Resource pooling in multi-tenant model Broad network accessibility in virtualised environment to heterogeneous users, clients, systems and devices Elasticity Massive scale availability Scalability Maintainability Homogeneity Virtualisation Interconnectivity platform with virtualised environment for enterprises and provisioning of in-between Service Level Agreements (SLAs) Resilient computing Advanced security Low cost



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- Massive scale availability
- Scalability
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- Interconnectivity platform with virtualised environment for enterprises and provisioning of in-between Service Level Agreements (SLAs)
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# Cloud Computing Paradigm

## Cloud Computing Concerns

Concerns in usage of cloud computing are:

- Requirement of a constant high-speed Internet connection
- Limitations of the services available
- Possible data loss
- Non delivery as per defined SLA specified performance
- Different APIs and protocols used at different clouds
- Security in multi-tenant environment needs high trust and low risks
- Loss of users' control



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Thank  
You