

Basic of Cloud Computing

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What is Cloud Computing ?

Cloud computing is a technology that allows users to access and use computing resources (such as servers, storage, databases, networking, software, and more) over the internet, often referred to as "the cloud." Instead of owning and maintaining physical hardware or infrastructure, users can rent or use these resources on-demand from cloud service providers.

Types of Cloud Computing:

1. **Public Cloud** – Services provided by third-party cloud providers (e.g., AWS, Azure, Google Cloud).
2. **Private Cloud** – Cloud infrastructure dedicated to a single organization.
3. **Hybrid Cloud** – A combination of public and private clouds for flexibility.

Cloud Service Models:

1. **IaaS (Infrastructure as a Service)** – Provides virtual machines, storage, and networking (e.g., AWS EC2, Google Compute Engine).
2. **PaaS (Platform as a Service)** – Provides development platforms and tools (e.g., AWS Elastic Beanstalk, Google App Engine).
3. **SaaS (Software as a Service)** – Provides fully functional software over the internet (e.g., Gmail, Dropbox, Salesforce).

Benefits of Cloud Computing:

- Cost-efficient (no upfront hardware costs)
- Scalability and flexibility
- High availability and reliability
- Enhanced security and compliance