

# CLOUD COMPUTING

Cloud computing is the delivery of computing services over the internet, including:

- Servers
- Storage
- Databases
- Networking
- Software-
- Analytics
- Intelligence

## KEY FEATURES

- **Scalability**-Easily increase or decrease resources (like servers, storage, CPU, etc.)
- **Elasticity**-Automatically adjusts resources based on real-time workload
- **Pay-as-you-go**-Pay only for what you use
- **High Availability**-Resources are always available through redundancy and backups
- **Global Reach**-Can deploy applications and services anywhere in the world
- **Maintenance-Free**-No hardware or infrastructure maintenance required by the user

## WHY COMPANIES ARE MOVING TO CLOUD:

### **On-Premises Challenges**

- Requires physical servers and storage
- High setup and maintenance cost
- Takes time to scale up during peak demand
- Needs approvals, logistics, vendor coordination
- Requires physical space, rent, electricity, cooling

- Staff needed to monitor systems 24/7

### **Cloud Advantages:**

- No need to buy or manage hardware
- Pay-as-you-go or subscription-based model
- Instantly scalable resources
- Instant provisioning with just a few clicks
- Everything hosted on remote data centers by providers
- Most monitoring and automation handled by cloud provider

