Describing Cloud Computing

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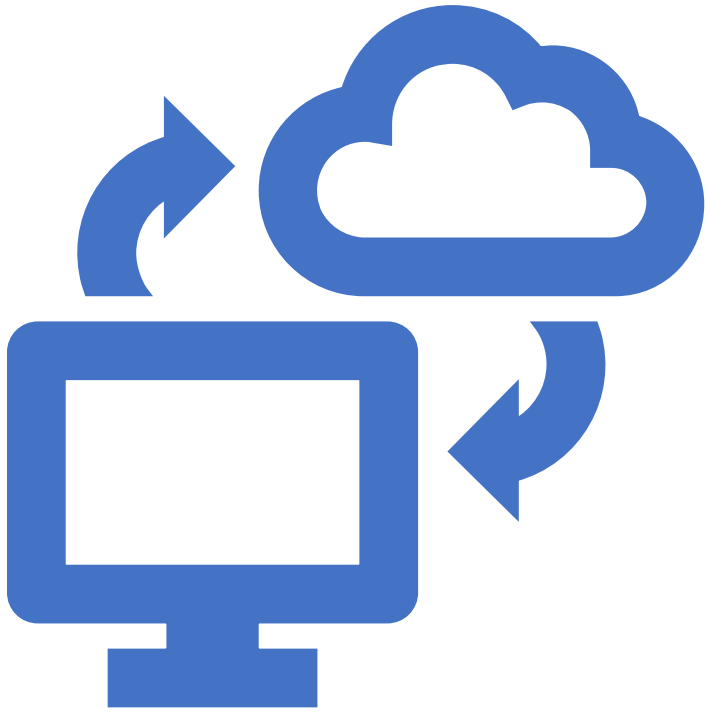

Agenda

- Define cloud computing
- Describe the shared responsibility model
- Define cloud models, including public, private, and hybrid
- Identify appropriate use cases for each cloud model
- Describe the consumption-based model
- Compare cloud pricing models

Cloud Computing

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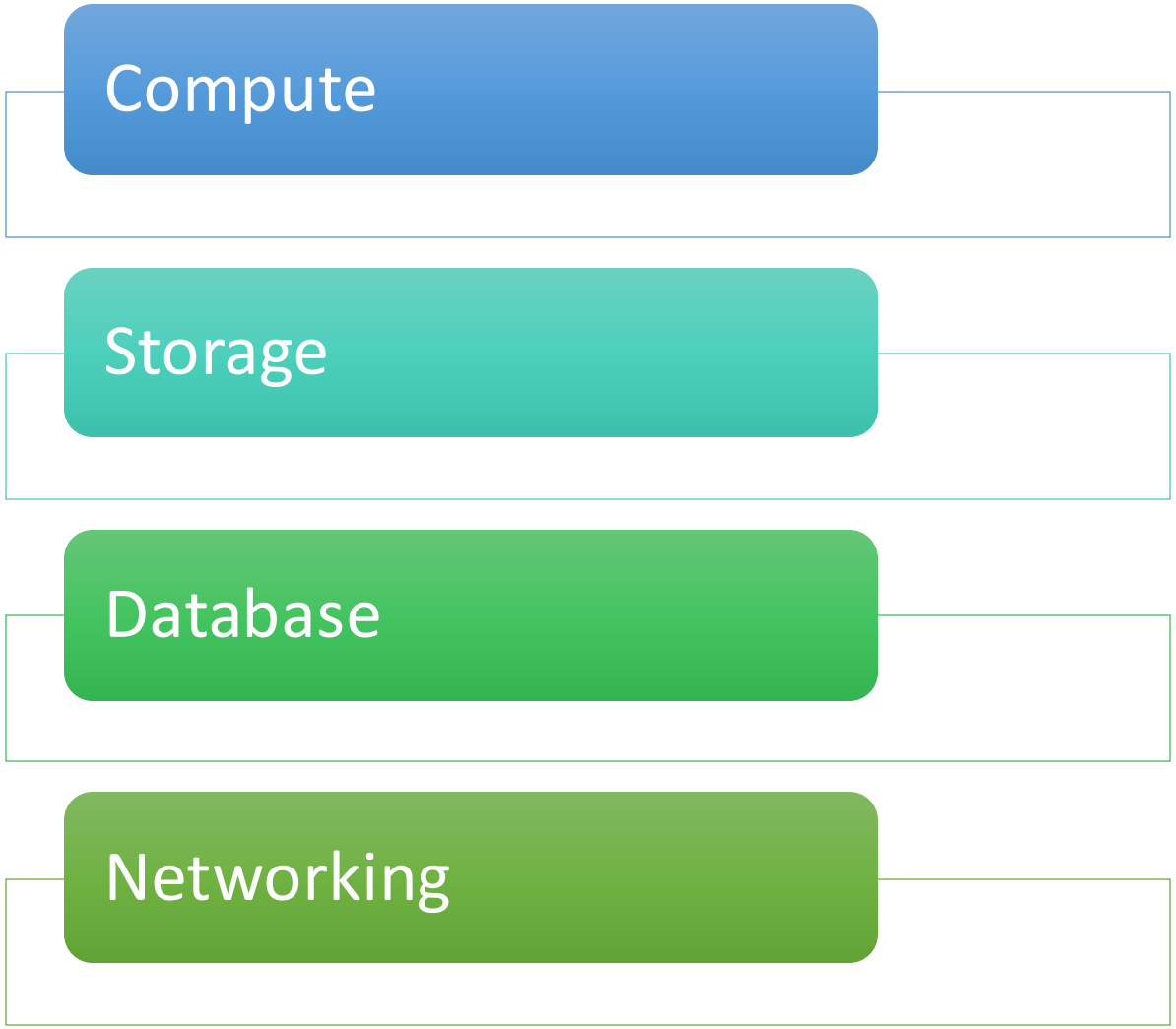
Cloud computing delivers computing services over the internet

Major Azure Services



More Azure Services

IoT

Machine Learning

Artificial Intelligence

Pros of Cloud Computing

- Not limited by physical infrastructure
- Easily scalable
- 24x7 access
- Cost effective

Shared Responsibility Model

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Traditional Model's Responsibilities

DATACENTER

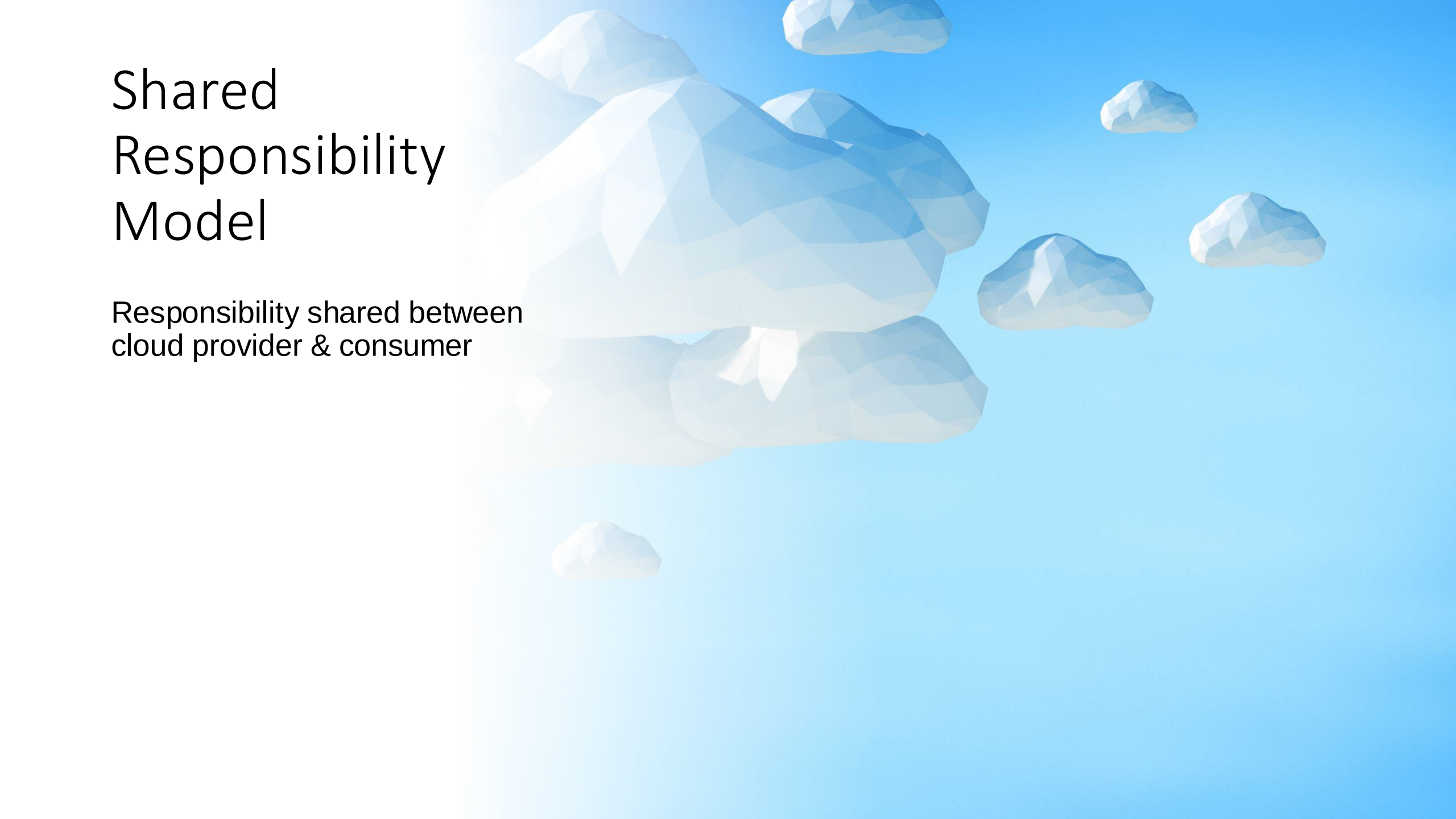
OS

APPLICATIONS

INFORMATION AND DATA

Shared Responsibility Model

Responsibility shared between cloud provider & consumer



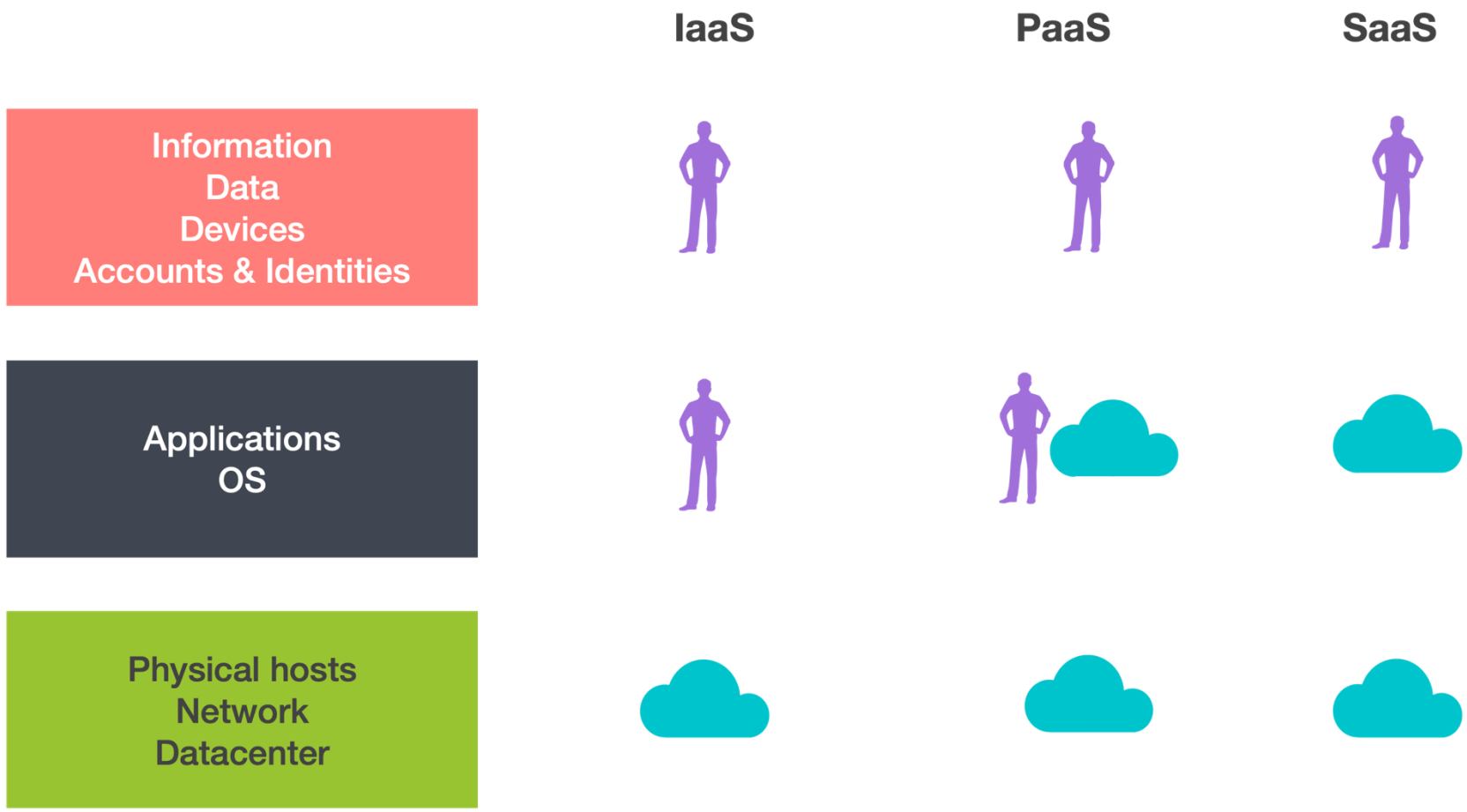
Types of Cloud Service

Infrastructure as a Service (IaaS)

Platform as a Service (PaaS)

Software as a Service (SaaS)

Shared Responsibility



Cloud Models

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Types of Cloud Models

- Public
- Private
- Hybrid
- Multi-cloud

Cloud Model: Private

- Used by a single entity
- Provides more control
- Can be hosted on-prem
- Examples: Azure Stack, Amazon VPC

Cloud Model: Public

BUILT AND MAINTAINED BY 3RD PARTY CLOUD PROVIDER

AVAILABLE FOR PUBLIC CONSUMPTION

EXAMPLES: AZURE, AWS, GCP

Cloud Model: Hybrid

Uses both public and private clouds

Allows private cloud to scale during surge

Cloud Model: Multi-cloud

Use multiple public cloud providers

Use different features from each

Started with one; migrating to another

Examples: Azure + AWS

Comparison of Cloud Models

	Public Cloud	Private Cloud	Hybrid Cloud
Ownership	Cloud provider	Self or cloud provider	Self or Cloud provider
Amount of control	Low	High	Medium
Cost	Cheaper	Expensive	Average
Data residency	3rd party	On-prem or 3rd party	On-prem or 3rd party

Cloud Pricing Models

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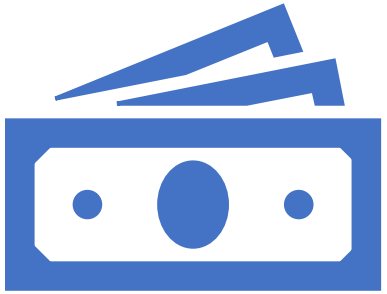
Types of Expenses



Capital Expenditure (CapEx)

Operational Expenditure (OpEx)

CapEx is an one-time expense to procure resources

Eg. New buildings, new equipment, buying vehicles, etc

OpEx is the expense on a resource over time

Eg. Employees salary, building rent, utility bills, etc

Cloud computing is OpEx (consumption-based pricing model)

Advantages of Consumption-based Pricing Model

- No up-front costs
- No need to manage infrastructure
- Procuring new resources are fast
- Scale as and when needed
- Wind up the resources when not needed