Microsoft 365

MS-900 Learning Path: **Describe cloud concepts**

Course Agenda

Learning Path – Describe cloud concepts

Learning Path – Describe Microsoft 365 apps and services

Learning Path – Describe Microsoft 365 security and compliance capabilities

Learning Path – Describe Microsoft 365 pricing, licensing, and support

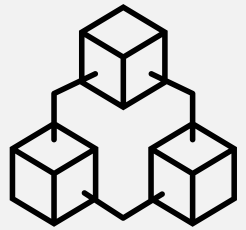
Learning Path Agenda

Describe cloud computing

Describe the benefits of using cloud services

Describe cloud service types

Module 1: Describe cloud computing



Module 1 Introduction

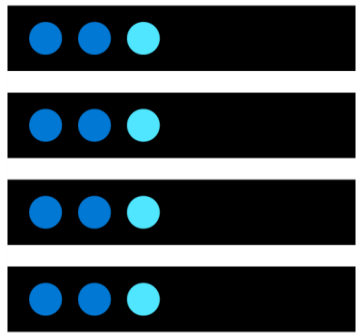
After completing this module, you'll be able to:

- 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

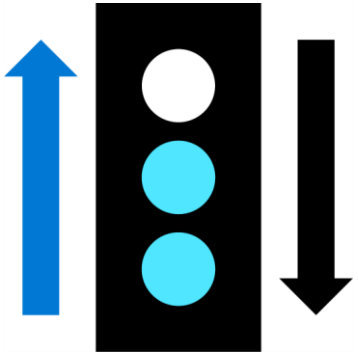
What is cloud computing?

Cloud Computing

is the delivery of computing services over the internet, enabling faster innovation, flexible resources, and economies of scale.



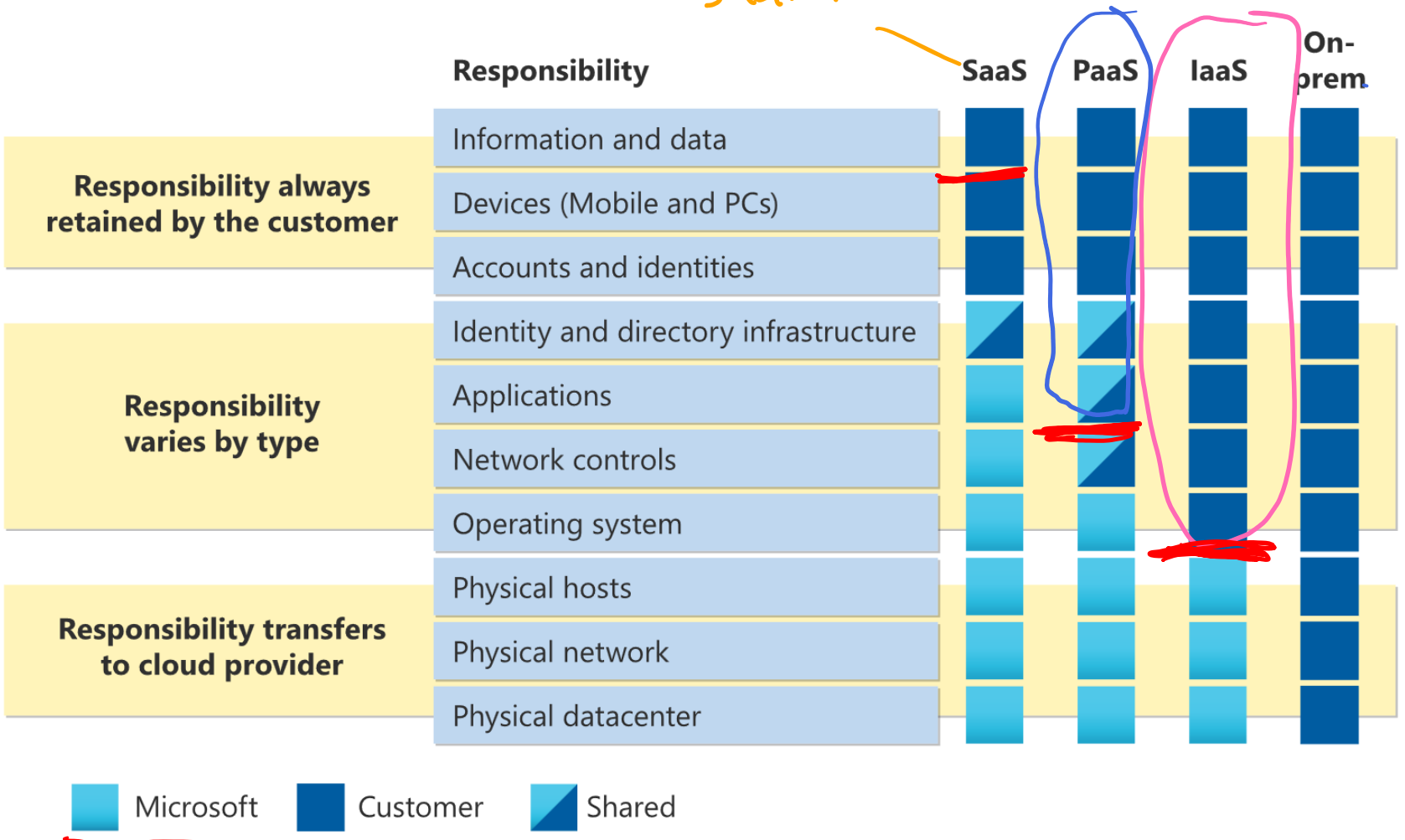
Compute



Networking

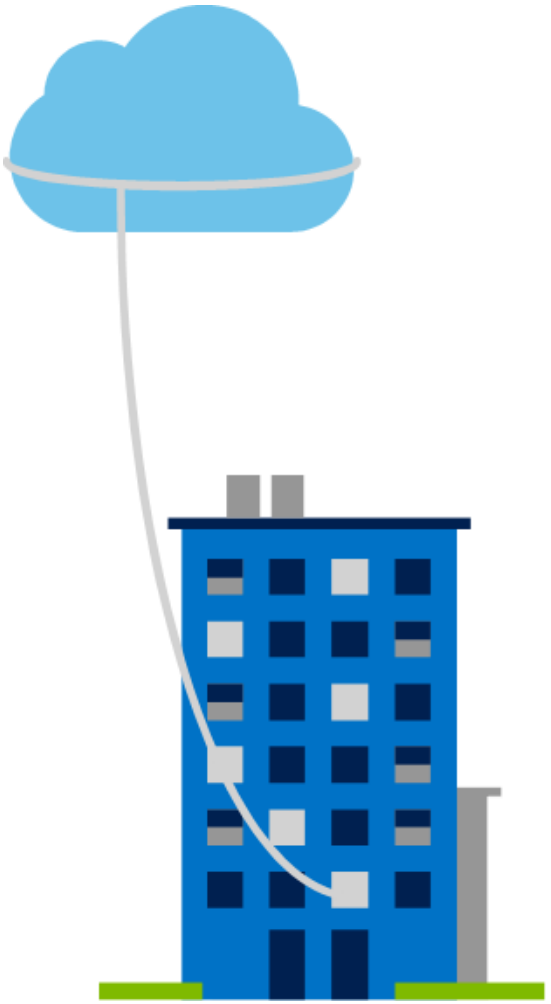
Storage

Shared responsibility model



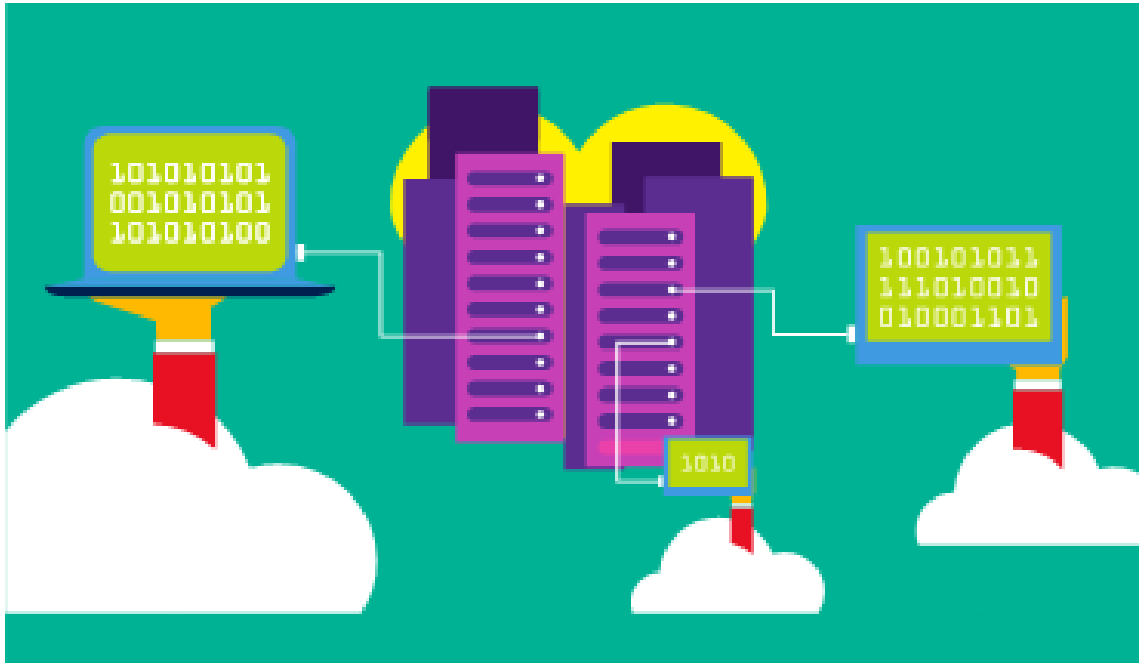
Private cloud !

- Organizations create a cloud environment in their datacenter.
- Organizations are responsible for operating the services they provide.
- Does not provide access to users outside of the organization.



Public cloud

- Owned by cloud services or hosting provider.
- Provides resources and services to multiple organizations and users.
- Accessed through secure network connection (typically over the internet).



Hybrid cloud

Combines **Public** and **Private** clouds to allow applications to run in the most appropriate location.

Cloud model comparison

Public Cloud	• No capital expenditures to scale up. • Applications can be quickly provisioned and deprovisioned. • Organizations pay only for what they use.
Private Cloud	• Hardware must be purchased for start-up and maintenance. • Organizations have complete control over resources and security. • Organizations are responsible for hardware maintenance and updates.
Hybrid Cloud	• Provides the most flexibility. • Organizations determine where to run their applications. • Organizations control security, compliance, and legal requirements.

Compare CapEx vs. OpEx

Capital Expenditure (CapEx)

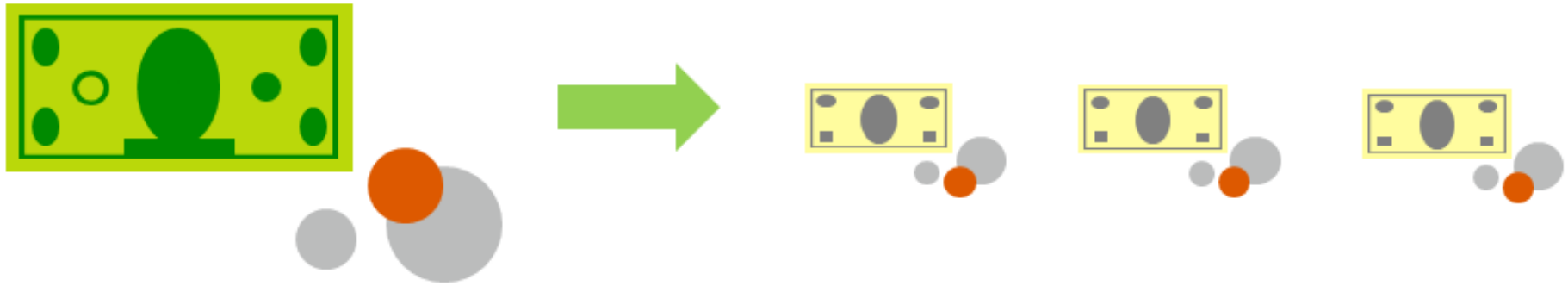
The up-front spending of money on physical infrastructure.

Costs from CapEx have a value that reduces over time.

Operational Expenditure (OpEx)

Spend on products and services as needed, pay-as-you-go.

Costs get billed immediately.

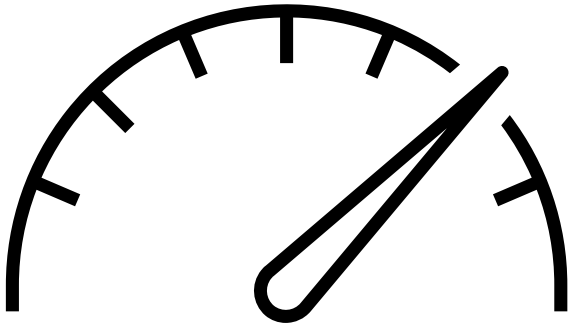


Consumption-based model

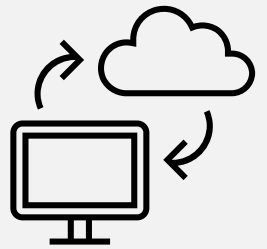
Cloud service providers operate on a consumption-based model.

This means that customers only pay for the resources they use. Whatever they use is what they pay for. Features of this model include:

- Better cost prediction
- Prices for individual resources and services are provided
- Billing is based on actual usage



Module 2: Describe the benefits of using cloud services



Module 2 Introduction

After completing this module, you'll be able to:

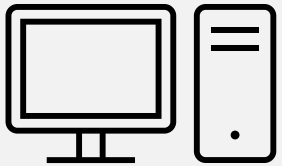
- Describe the benefits of high availability and scalability in the cloud
- Describe the benefits of reliability and predictability in the cloud
- Describe the benefits of security and governance in the cloud
- Describe the benefits of manageability in the cloud

Cloud Benefits

High availability	Elasticity
Scalability	Reliability
Predictability	Security
Governance	Manageability

Azure Site Recovery

Module 3: Describe cloud service types



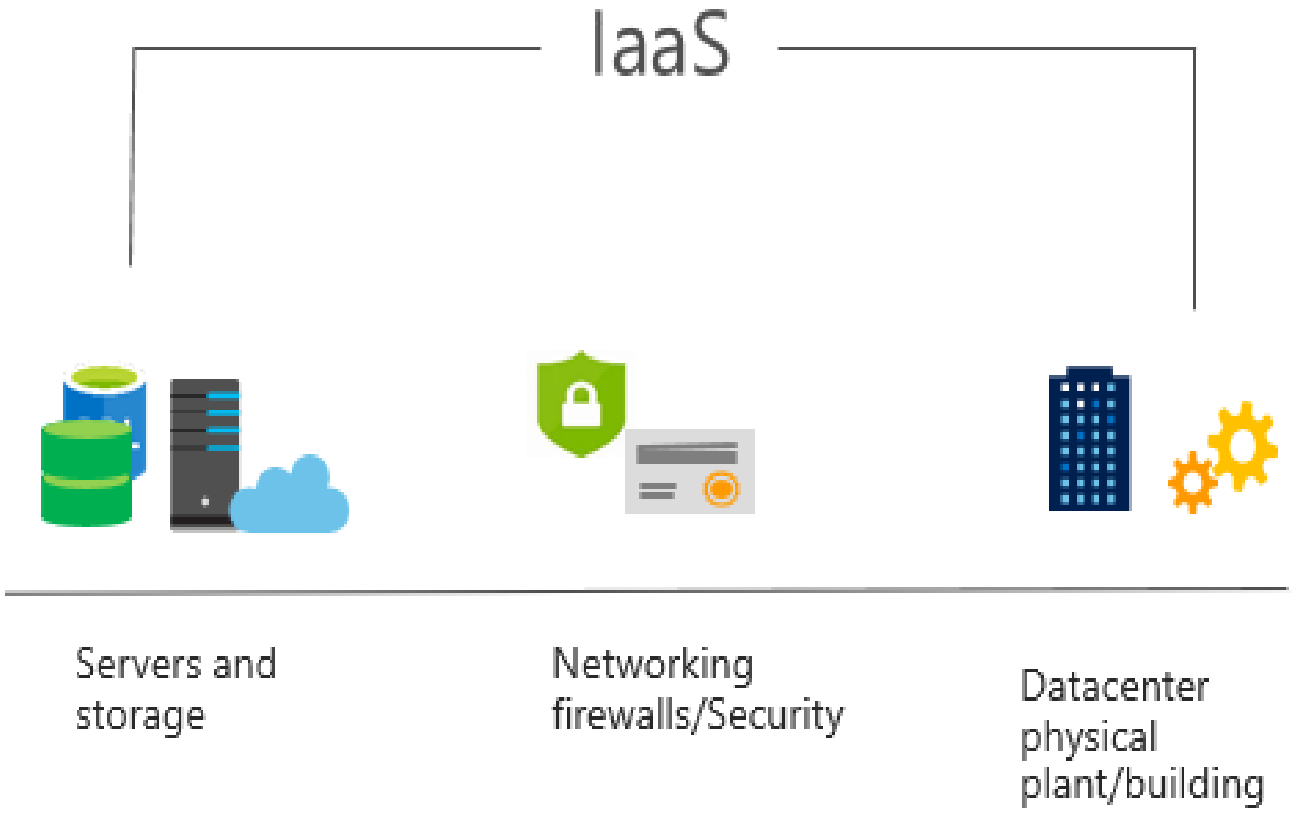
Module 3 Introduction

After completing this module, you'll be able to:

- Describe Infrastructure as a Service (IaaS)
- Describe Platform as a Service (PaaS)
- Describe Software as a Service (SaaS)
- Identify appropriate use cases for each cloud service (IaaS, PaaS, SaaS)

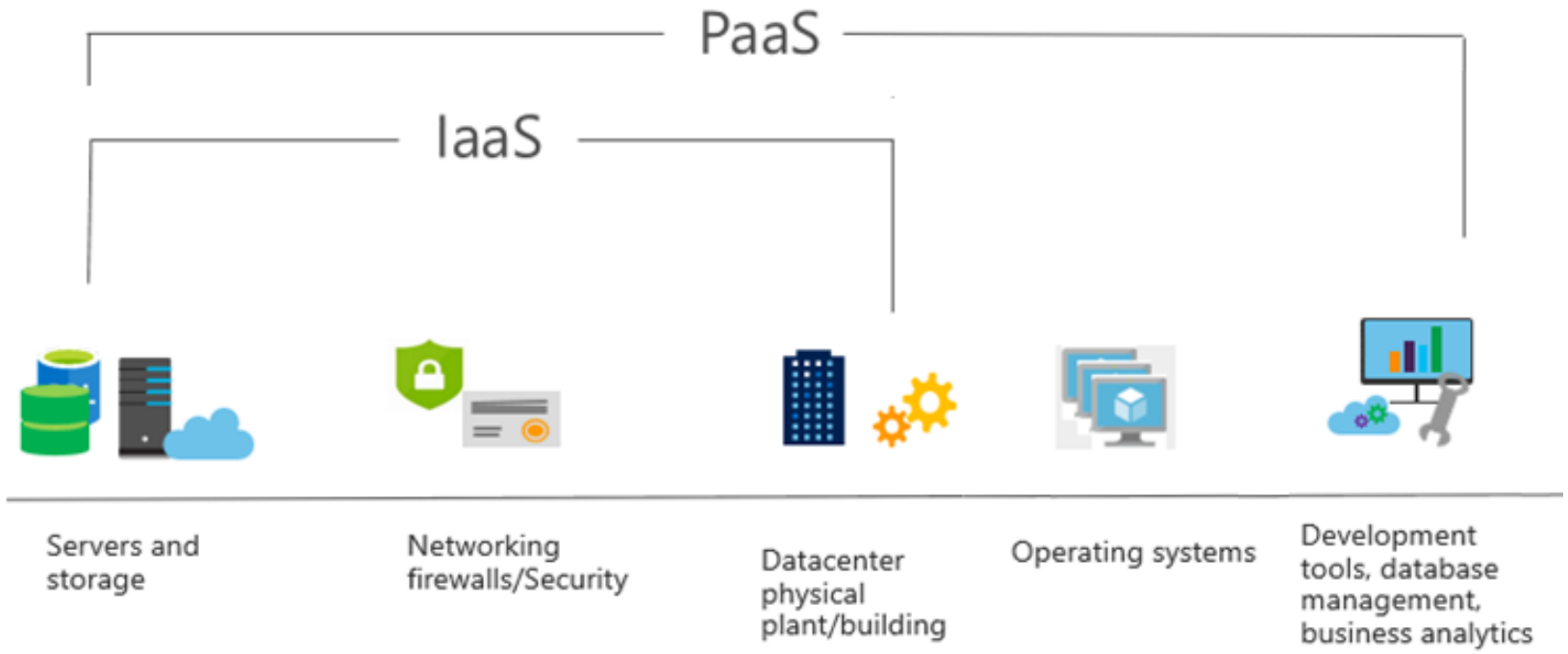
Infrastructure as a Service (IaaS)

Build pay-as-you-go IT infrastructure by renting servers, virtual machines, storage, networks, and operating systems from a cloud provider.



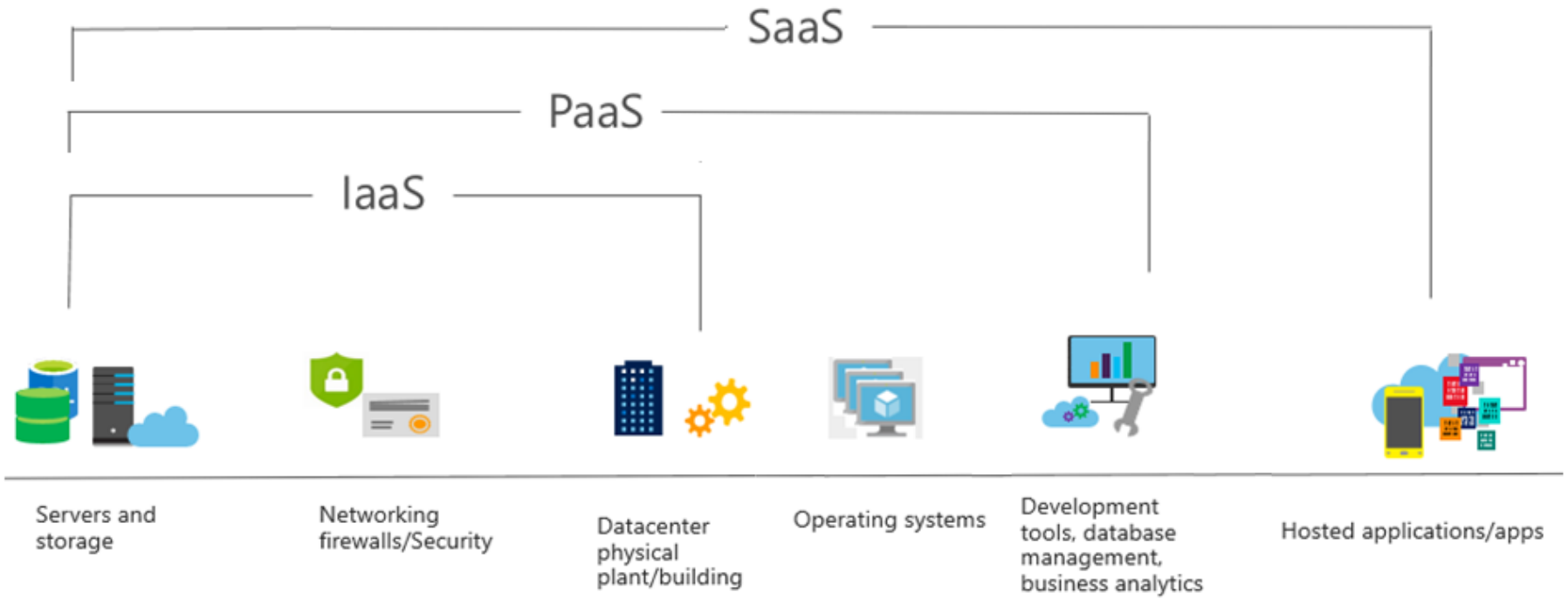
Platform as a Service (PaaS)

Provides an environment for building, testing, and deploying software applications without focusing on managing the underlying infrastructure.



Software as a Service (SaaS)

Users connect to and use cloud-based apps over the internet: for example, Microsoft 365, email, and calendars.



Cloud service comparison

IaaS	PaaS	SaaS
The most flexible cloud service. You configure and manage the hardware for your application.	Focus on application development. Platform management is handled by the cloud provider.	Pay-as-you-go pricing model. Users pay for the software they use on a subscription model.

Learning Path Summary

Learned about cloud computing

Learned about the benefits of using cloud services

Learned about cloud service types