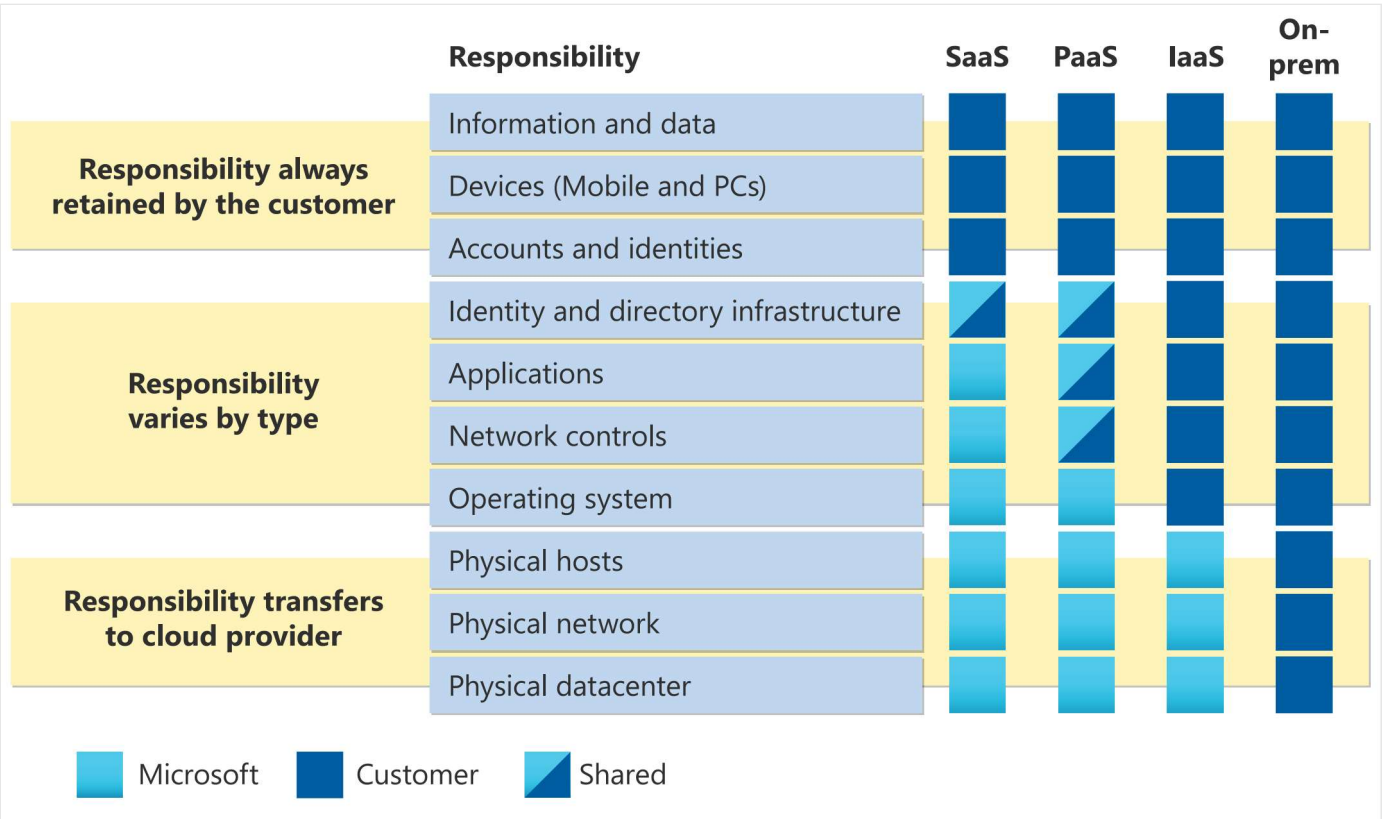✓ 100 XP ▶

Describe Infrastructure as a Service

2 minutes

Infrastructure as a service (IaaS) is the most flexible category of cloud services, as it provides you the maximum amount of control for your cloud resources. In an IaaS model, the cloud provider is responsible for maintaining the hardware, network connectivity (to the internet), and physical security. You're responsible for everything else: operating system installation, configuration, and maintenance; network configuration; database and storage configuration; and so on. With IaaS, you're essentially renting the hardware in a cloud datacenter, but what you do with that hardware is up to you.

Shared responsibility model

The shared responsibility model applies to all the cloud service types. IaaS places the largest share of responsibility with you. The cloud provider is responsible for maintaining the physical infrastructure and its access to the internet. You're responsible for installation and configuration, patching and updates, and security.

	Responsibility	SaaS	PaaS	IaaS	On-prem
Responsibility always retained by the customer	Information and data	Customer	Customer	Customer	Customer
	Devices (Mobile and PCs)	Customer	Customer	Customer	Customer
	Accounts and identities	Customer	Customer	Customer	Customer
Responsibility varies by type	Identity and directory infrastructure	Shared	Shared	Customer	Customer
	Applications	Microsoft	Shared	Customer	Customer
	Network controls	Microsoft	Shared	Customer	Customer
	Operating system	Microsoft	Microsoft	Customer	Customer
Responsibility transfers to cloud provider	Physical hosts	Microsoft	Microsoft	Microsoft	Customer
	Physical network	Microsoft	Microsoft	Microsoft	Customer
	Physical datacenter	Microsoft	Microsoft	Microsoft	Customer

■ Microsoft   ■ Customer   ◢ Shared

Scenarios

Some common scenarios where IaaS might make sense include:

- Lift-and-shift migration: You're standing up cloud resources similar to your on-prem datacenter, and then simply moving the things running on-prem to running on the IaaS infrastructure.
- Testing and development: You have established configurations for development and test environments that you need to rapidly replicate. You can stand up or shut down the different environments rapidly with an IaaS structure, while maintaining complete control.

Next unit: Describe Platform as a Service

Continue >