



Module 1: Describe Cloud Computing (Unit 1 - 4)

What is Cloud Computing?

↳ Cloud Computing: delivery of computing services over the Internet.

Computing services include common IT infrastructure such as virtual machines, storage, databases, and networking.

Shared Responsibility Model:

↳ In a traditional ^{corporate} datacenter,

Company responsible for • maintaining physical space
• ensuring security
• maintaining or replacing servers if anything happens.

IT department responsible for!

- maintaining all infrastructure and S/W needed to keep the datacenter up and running.
- likely to be responsible for keeping all systems patched and on the correct version.

With the shared responsibility model, these responsibilities get shared b/w the cloud provider and the consumer.

↳ Physical security

- Power
 - Cooling
 - Network connectivity

→ Responsibility of cloud provider.

Consumer isn't collocated with datacenter,
so no sense for consumer to have these resp.

- Data stored in cloud
- Information
- Access security

↳ Responsibility of consumer.

↳ You give access to those who need it

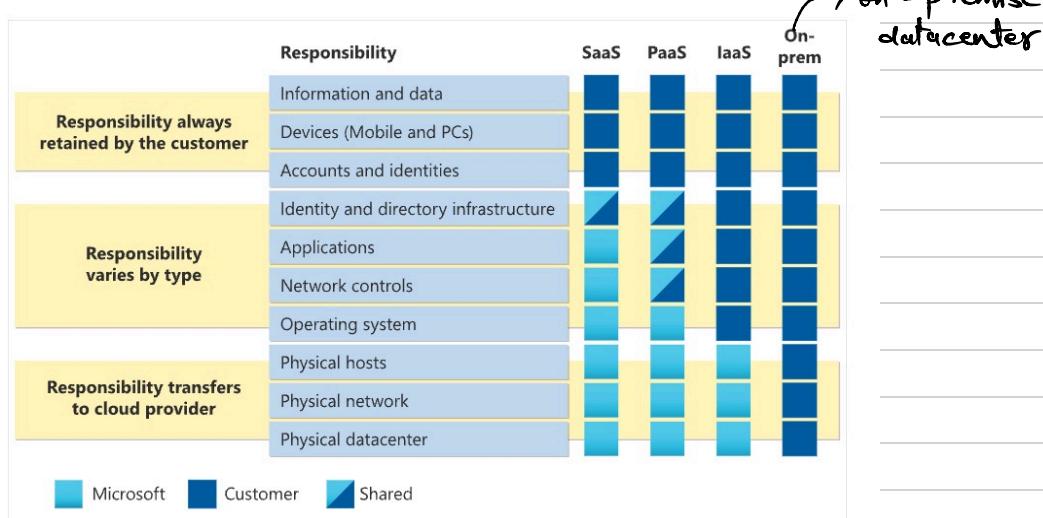
Then for some things, the responsibilities depends on the situation.

If you're using a cloud SQL database, the cloud provider would be responsible for maintaining the actual DB. However, you're still responsible for the data that gets ingested into the DB.

If you deployed a virtual machine and installed an SQL database on it, you'll be responsible for DB patches and updates, as well as maintaining the data and info stored in the DB.

heavily

- ↳ The Shared responsibility model is "tied" into the cloud service types:
 - Infrastructure as a Service (IaaS)
 - Platform as a Service (PaaS)
 - Software as a Service (SaaS)
- IaaS places the most responsibility on the consumer, with the cloud provider being responsible for the basics of physical security, power, and connectivity.
- SaaS places most of the responsibility with the cloud provider.
- PaaS, being a middle ground b/w IaaS and SaaS, rests somewhere in the middle and evenly distributes b/w the cloud provider and the consumer.



→ When using a cloud provider, you'll always be responsible for:

- The info and data stored in the cloud.
- Devices that are allowed to connect to your cloud (cell phones, computers, and so on).
- The accounts and identities of the people, services, and devices within your organization

The cloud provider is always responsible for:

- The physical datacenter
 - " " network
 - " " hosts

Your service model is responsible for:

- OS
- Network controls
- Applications
- Identity and Infrastructure.