



Security + Cloud Security

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General Terms

CSP Cloud Service Provider

- Organization that provides a product that utilizes cloud technology

Types of Cloud Services

SaaS Software as a service

- Applications provide over the internet
- CSP holds majority of the responsibility

PaaS Platform as a Service

- Preconfigured computer platform they can use as needed
- Balance between CSP and customer responsibility
- **Application Platform as a Service (aPaaS)** is another term for PaaS
- Provides an environment for developers and companies to create, host and deploy applications, saving developers from the complexities of the infrastructure side (setting up, configuring and managing elements such as servers and databases)

IaaS Infrastructure as a Service

- Self-managed hardware equipment rental
- Pay per use basis
- There is less financial risk in scaling up since you do not own the hardware
- More flexibility in scaling up and down to meet resource demands
- Customer hold most of the responsibility
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SECaaS Security as a Service

- Outsource administrative tasks associated with security
- Physical security monitoring and anti-virus are examples

MaaS Monitoring as a Service

- The most common application for MaaS is online state monitoring, which continuously tracks certain states of applications, networks, systems, instances or any element that may be deployable within the cloud

Cloud Security Issues

- If the **CSP** is compromised your data is compromised
- Vulnerable to business practices of the cloud vendor (prices)
- Vulnerable to the EULA or legal contract of the vendor
- Vulnerable to internet outages that can restrict your access to important data
- Vulnerable to the national and local laws of your cloud servers

CASB Cloud assess security broker

- Is a software layer between an organization and the **CSP**
- Ensures that data-in-transit for a backup system is encrypted with proprietary encryption before it leaves the building

Cloud deployment models

- **Public cloud services**
 - Available to anyone such as Google, Amazon, Microsoft, Apple
 - Servers are accessible through the public internet
- **Private cloud services**
 - Private cloud is setup particularly for one organization
 - May be in the building of the organization
- **Community services**
 - Shared between several private entities
- **Hybrid services**
 - Some combination of clouds (not necessarily combination of models listed above but can be)