

Cloud Computing

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P.A.A.S.
platform as a service

PAAS

The company provides the platform and infrastructure while the Software is maintained by the user.

This means:

User – manages applications

Provider – manages everything else (runtime, middleware, virtualization, servers, storage, networking)

allows you to launch and create new applications in their cloud

ADDITIONALLY,

Providers can provide public cloud,
private cloud and/or hybrid PaaS
alternatives.

PaaS SCENARIO

Company A needs to build a new console app with PaaS, Company A can Own the apps, but rent the resources by contracting a provider(i.e. Microsoft) to give them said resources (I.e. the .Net framework).

Benefits: **Less time coding** since dev tools for the framework and resources are provided. Use **sophisticated tools affordably** with a pay as you go model to avoid outright costs periodically.

S.A.A.S.
software as a service

SAAS

Company provides software, platform and infrastructure to users.

This Means:

Users: have the ability to use the provided services under whichever model the provider chooses.

Providers: provide the full software package that is maintained by the author in their cloud.

They want everything to be owned & operated by the provider. Updates are easier to publish.

ADDITIONALLY,

The software is delivered as a service,
usually pay as you go.

Providers typically want to own &
operate everything.

SAAS SCENARIO

Group TWO LLC. needs to host weekly meetings with SaaS, Group TWO LC. can own the apps, while the contracted provider (i.e. Google) maintains the resources needed for the software to work as intended(I.e. the Google Meet).

Benefits: **Pay only for what you use** since the software can scale up or down elastically. **Use free client software** since most SaaS apps can run directly from your browser.

IAAS SCENARIO – Public Cloud Computing Type

Create the apps, Create the resources, Rent the infrastructure.

Service: IBM IaaS Solutions

Company C needs to create their own applications in the cloud but needs the most control possible over their platforms to distribute it. A company in this situation needs fundamental control over computer resources and has operating control over operating systems, storage and networks.

PUBLIC VS. PRIVATE VS. HYBRID

PUBLIC CLOUD

Company shares hardware, storage, and network infrastructure with other companies, aka “cloud tenants.”

“It is like you are renting a room in an apartment complex.”

- Cheap or free
- No maintenance fee
- Automated deployment
- Reliable

Disadvantages:

- No control over infrastructure.
- Security at high risk
- As company expands, the cost can grow exponentially

WHO USES PUBLIC?

- SAAS, PAAS, IAAS
- AZURE, DROPBOX

Private cloud

Physically located at the company's datacenter (or operated by a third-party vendor off-site).

It's like you own a house.

- Control over everything
- Secure
- Private from other companies

Disadvantages:

- Expensive.
- IT Expertise needed
- Limited mobile access

WHO USES PUBLIC?

- GOVERNMENT
- BANKS

Hybrid cloud

It is a type of integrated cloud infrastructure that includes both public and private options according to specific business needs and requirements.

Disadvantages:

- Incompatibility.
- Complex
- Close maintenance

It's like renting an apartment.

- Cost effective
- Data separation
- Security

WHO USES PUBLIC?

- NETFLIX
- PINTEREST
- EVERNOTE

Questions?