

Cloud Computing Services

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IAAS (Infrastructure as a Service)

IAAS allows the client to use a IAAS services' cloud computing infrastructure which includes including servers, network, operating systems, and storage, through virtualization technology. IAAS gives their client a lot more control over their infrastructure while providing them with technologies that would allow clients to have a traditional database without the hassle of maintaining it.

However, the client will be responsible for managing their runtime, operating systems, data, applications and middleware.

Why IAAS is useful

1. It is one of the more flexible cloud computing models.
2. Clients and keep control of their infrastructure.
3. It's highly scalable (resources can be purchased as needed)

Examples of IAAS companies include

- Rackspace
- Amazon Web Services
- Google Compute Engine

An situation could be a start up cloud gaming company who experiencing rapid growth could look at IAAS to scale more horizontally to keep up with the amount of people accessing its website and accessing their games.

PAAS (Platform as a service)

- PaaS outsources the servers, storage, and networking to a third-party provider.
- Allows developers to concentrate on building the software instead of dealing with operating systems, software updates, storage, or infrastructure.
- This allows custom software to be created by developers rather than relying on the software provided by an SaaS.



PaaS User Story

- As an entrepreneur, I want to make a new online chat service.
- As an entrepreneur, I don't want to deal with creating an entire server infrastructure.
- As an entrepreneur, I want to be able to customize my software.
- As an entrepreneur, I need my app to be scalable.
- As an entrepreneur, I want to reduce the amount of coding needed to just building the software I want.
- As an entrepreneur, I want to reduce the overhead needed to deploy my app.

Solution: Platform as a Service!

Which services are PaaS?

- AWS Elastic Beanstalk
- Windows Azure
- Force.com
- Google App Engine
- Openshift
- Apache Stratos

SAAS (Software as a service)

- SAAS Definition- Software as a service is a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted.
- My own definition- SAAS is a software distribution model in which a cloud provider hosts applications and makes them available to end users over the internet.
- To put it simply- SAAS is a way of delivering applications over the internet- **as a service**



Why SAAS is useful

(<https://www.goodworklabs.com/importance-of-saas-in-your-business/>)

- Scalability
 - SaaS solutions reside in cloud environments which makes them scalable
 - SaaS has the flexibility to integrate with other SaaS offerings
- Security
 - Data security is currently one of the most valuable assets of a company, SaaS can provide much needed security
- Speed
 - SaaS is usually pre-installed and configured
 - One simply can provide the server simply, and this helps by bringing down installation and administration efforts
- Customizable
 - SaaS applications are easily customizable and integrable with software similarly to Gmail, dropbox, or any sort of choice.

Saas examples

- Slack
- Hubspot
- Google
- Zoom
 - provides you with an easy and stress-free platform to hold online meetings, mobile collaboration as well as video conferencing.

Hybrid Cloud

Hybrid cloud combines and unifies public cloud and private cloud services from multiple cloud vendors to create a single, flexible, cost-optimal IT infrastructure.

hybrid cloud architecture focused on the mechanics of transforming portions of a company's on-premises data center into private cloud infrastructure, and then connecting that infrastructure to public cloud environments hosted off-premises by a public cloud provider

Hybrid cloud is any environment that uses both public and private clouds.

Public cloud is cloud computing that's delivered via the internet and shared across organizations.

Private cloud is cloud computing that is dedicated solely to your

Examples

Document sharing options, like Dropbox, Google Docs, and Microsoft 365

Questions?