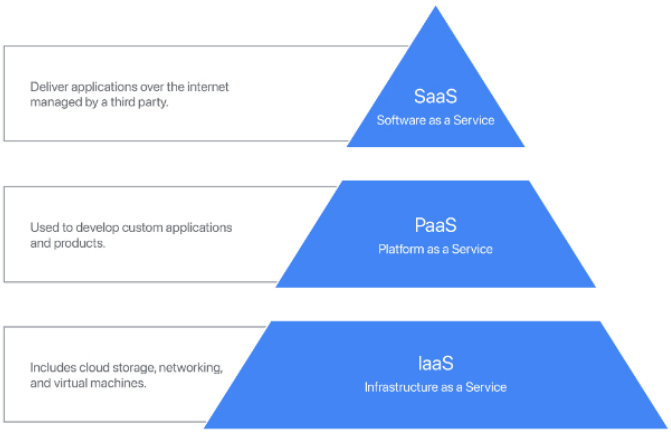
Common Cloud Models

The cloud is a part of everyday life in the modern internet world. It gives users a place to work, access, and store data from any system plugged into the cloud. Being able to work with the cloud is a vital skill in IT. This reading will cover common cloud services and four types of cloud computing.

Types of cloud services

Companies use cloud services to provide access to internal tools, develop software, store data, and more. The three primary cloud services are Software as a service, Platform as a service, and Infrastructure as a service. The Google Cloud Platform is a prime example of a system that employs all three types of cloud services.



Software as a Service (SaaS)

SaaS providers allow users to use their software with an internet browser or application instead of having to download software to a specific device. Users access information from any device through a login. The SaaS vendor stores all user data and files online instead of on the user's physical equipment. SaaS typically uses a subscription model for its services. Hacking is a concern when using this service since the full-service run in the cloud.

Platform as a Service (PaaS)

PaaS offers computer hardware and software in the cloud that allows users to develop and deploy applications or cloud based services. PaaS makes buying, developing, configuring, managing, and installing software and hardware unnecessary.

Infrastructure as a Service (IaaS)

IaaS provides an IT infrastructure to a company over the internet and on-demand. IaaS provide access to things like virtual machines, containers, networks, and storage. This service reduces the need to purchase expensive hardware. IaaS allows companies to centralize infrastructure for faster disaster recovery.

Additional cloud services

The following cloud services are more narrow in focus and are designed to solve unique problems.

VPN as a Service (VPNaaS)

VPNaaS secure networks through a cloud-based connection between the employee and the organization's network.

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Function as a Service (FaaS)

FaaS is an event-based service that lets developers do the building, running, and managing functions directly in the cloud without needing to maintain a server. Event-based systems use an event, such as a website click, to trigger communication within a system.

Data as a Service (DaaS)

DaaS provides data access as a service to a business. It manages the data companies generate and uses APIs to deliver data from various sources on demand. DaaS allows companies to organize and access the data they need. DaaS monetize by providing access to data. By increasing accessibility to data, DaaS can lower the cost of data-driven decision making, remove personal bias in data collection, and innovation.

Blockchain as a Service (BaaS)

BaaS is a newer and increasingly mainstream cloud model that uses a non-centralized system. This model uses encrypted, connected blocks of information for higher security than standard cloud services. BaaS is used to store smart contracts and high-security documents. This model authenticates users without needing additional applications. SaaS services may adapt BaaS as a standard feature to address the risk of hacking.

Four types of cloud computing

Cloud computing is the delivery of computing services like the cloud services mentioned above. There are four main types of cloud computing:

1. **Public clouds**: cloud environments created from IT infrastructure owned by a provider such as Google Cloud or Amazon Web Services. Public clouds host the data of multiple companies. Be aware that public clouds do not provide absolute security for the information it stores.
2. **Private clouds:** serve a single business or organization. The cloud runs behind an internal firewall. Private clouds can be deployed and managed by a third-party vendor.
3. **Multiclouds**: involve using more than one cloud service from more than one vendor. These can be private or public.
4. **Hybrid clouds:** blend at least two public or private cloud services and connects them with internal networks, such as local area networks or VPNs.

Cloud services and cloud computing work together to meet the needs of companies and organizations.

Key Takeaways

Companies use the cloud for many tasks and services.

- The three primary cloud services are SaaS, PaaS, and IaaS.
- Additional cloud services include VPNaaS, FaaS, DaaS, and BaaS.
- Four main types of cloud computing are public clouds, private clouds, multiclouds, and hybrid clouds that deliver cloud services.

Resource for more information

For more information on the Google Cloud Platform and the services it offers, visit this website.

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