Cloud Provider

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What is Cloud Provider?

A cloud service provider is a third-party company offering a cloud-based platform, infrastructure, application or storage services. Much like a homeowner would pay for a utility such as electricity or gas, companies typically have to pay only for the amount of cloud services they use, as business demands require.

Besides the pay-per-use model, cloud service providers also give companies a wide range of benefits. Businesses can take advantage of scalability and flexibility by not being limited to physical constraints of on-premises servers, the reliability of multiple data centers with multiple redundancies, customisation by configuring servers to your preferences and responsive load balancing which can easily respond to changing demands. Though businesses should also evaluate security considerations of storing information in the cloud to ensure industry-recommended access and compliance management configurations and practices are enacted and met.

Characteristics Of Cloud Computing

1. **Resources Pooling**
2. **On-Demand Self-Service**
3. **Easy Maintenance**
4. **Scalability And Rapid Elasticity**
5. **Economical**
6. **Measured And Reporting Service**
7. **Security**

Dropbox

Dropbox offers various cloud storage options. Whether you're an individual, small business, or large company, using Dropbox for cloud storage lets you store everything safely in the cloud and access file uploads from multiple devices. The benefits of Dropbox for business users include various storage space options to fit your team's needs, collaboration and productivity tools, and robust data protection, including two-factor authentication.

Benefits of Cloud Storage

Cloud storage benefits include easily storing, accessing, and protecting your content via the internet. You can streamline work and outdated storage systems by uploading nearly any file and accessing it from multiple devices. You can also rest easy knowing all your important files are stored in a safe, off-site location. This is especially useful in times of disaster recovery and if your hard drive lets you down.

How Does Cloud Storage Works?

In cloud computing, cloud storage services work as a network of connected data servers collectively used to share and access your files across devices. Cloud storage providers own and maintain the offsite servers that make up this network at their data centers. Users can upload files to the servers and access their cloud data via website, desktop app, or mobile app.

Google Cloud

Google Cloud Platform (GCP), offered by Google, is a suite of cloud computing services that runs on the same infrastructure that Google uses internally for its end-user products, such as Google Search, Gmail, Google Drive, and YouTube.

Alongside a set of management tools, it provides a series of modular cloud services including computing, data storage, data analytics and machine learning.

Registration requires a credit card or bank account details.

Google Cloud Storage & Databases

Cloud Storage - Object storage with integrated edge caching to store unstructured data.

Cloud SQL - Database as a Service based on MySQL, PostgreSQL and Microsoft SQL Server.

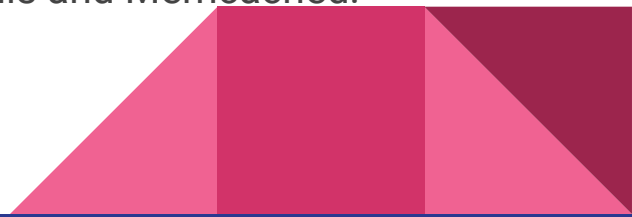
Cloud Bigtable - Managed NoSQL database service.

Cloud Spanner - Horizontally scalable, strongly consistent, relational database service.

Cloud Datastore - NoSQL database for web and mobile applications.

Persistent Disk - Block storage for Compute Engine virtual machines.

Cloud Memorystore - Managed in-memory data store based on Redis and Memcached.



Google Cloud Networking

VPC - Virtual Private Cloud for managing the software defined network of cloud resources.

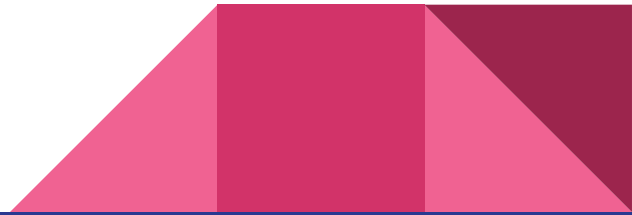
Cloud Load Balancing - Software-defined, managed service for load balancing the traffic.

Cloud Armor - Web application firewall to protect workloads from DDoS attacks.

Cloud CDN - Content Delivery Network based on Google's globally distributed edge points of presence.

Cloud Interconnect - Service to connect a data center with Google Cloud Platform Cloud DNS - Managed, authoritative DNS service running on the same infrastructure as Google.

Network Service Tiers - Option to choose Premium vs Standard network tier for higher-performing network.



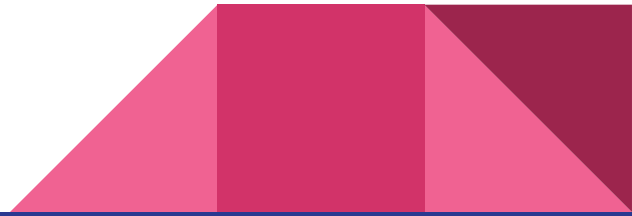
What is IBM Cloud?

IBM Cloud is a suite of cloud computing services from IBM that offers both platform as a service (PaaS) and infrastructure as a service (IaaS).

Why is IBM Cloud used?

With IBM Cloud IaaS, organizations can deploy and access virtualized IT resources -- such as compute power, storage and networking -- over the internet. For compute, organizations can choose between bare-metal or virtual servers.

With IBM Cloud PaaS -- which is based on the open source cloud platform Cloud Foundry -- developers can use IBM services to create, manage, run and deploy various types of applications for the public cloud, as well as for local or on-premises environments. IBM Cloud supports various programming languages, such as Java, Node.js, PHP and Python.



AWS

- The full form of AWS is Amazon Web Services.
- It is a platform that offers flexible, reliable, scalable, easy-to-use and, cost-effective cloud computing solutions.
- AWS is a comprehensive, easy to use computing platform offered Amazon.
- The platform is developed with a combination of infrastructure as a service (IaaS), platform as a service (PaaS) and packaged software as a service (SaaS) offerings.

AWS Services

1. EC2 : EC2 is a cloud platform provided by Amazon that offers secure, and resizable compute capacity. Its purpose is to enable easy access and usability to developers for web-scale cloud computing, while allowing for total control of your compute resources.
2. Amazon Lambda : Lambda permits you to run code without owning or managing servers. Users only pay for the compute time consumed.
3. S3 : Amazon Simple Storage Service (S3) provides scalable object storage for data backup, collection and analytics. An IT professional stores data and files as S3 objects -- which can range up to 5 gigabytes (GB) -- inside S3 buckets to keep them organized

Azure as PaaS (Platform as a Service)

- As the name suggests, a platform is provided to clients to develop and deploy software. The clients can focus on the application development rather than having to worry about hardware and infrastructure. It also takes care of most of the operating systems, servers and networking issues.
- The overall cost is low as the resources are allocated on demand and servers are automatically updated.
- It is less vulnerable as servers are automatically updated and being checked for all known security issues. The whole process is not visible to developer and thus does not pose a risk of data breach.

Azure as IaaS (Infrastructure as a Service)

- It is a managed compute service that gives complete control of the operating systems and the application platform stack to the application developers. It lets the user to access, manage and monitor the data centers by themselves.
- This is ideal for the application where complete control is required. The virtual machine can be completely adapted to the requirements of the organization or business.
- IaaS facilitates very efficient design time portability. This means application can be migrated to Windows Azure without rework. All the application dependencies such as database can also be migrated to Azure.
- IaaS allows quick transition of services to clouds, which helps the vendors to offer services to their clients easily. This also helps the vendors to expand their business by selling the existing software or services in new markets.

What is Heroku?

Heroku is a container-based cloud Platform as a Service (PaaS). Developers use Heroku to deploy, manage, and scale modern apps. Our platform is elegant, flexible, and easy to use, offering developers the simplest path to getting their apps to market.

Heroku is fully managed, giving developers the freedom to focus on their core product without the distraction of maintaining servers, hardware, or infrastructure. The Heroku experience provides services, tools, workflows, and polyglot support—all designed to enhance developer productivity.