

AWS ,AZURE, GCP

COMPARISION





Overviews

| Vendor | Strengths | Weaknesses |
|------------------------|--|--|
| AWS | <ul style="list-style-type: none">• Dominant market position• Extensive, mature offerings• Support for large organizations• Extensive training• Global reach | <ul style="list-style-type: none">• Difficult to use• Cost management• Overwhelming options |
| Microsoft Azure | <ul style="list-style-type: none">• Second largest provider• Integration with Microsoft tools and software• Broad feature set• Hybrid cloud• Support for open source | <ul style="list-style-type: none">• Less "enterprise-ready"• Incomplete management tooling |
| Google | <ul style="list-style-type: none">• Designed for cloud-native businesses• Commitment to open source and portability• Deep discounts and flexible contracts• DevOps expertise | <ul style="list-style-type: none">• Late entrant to IaaS market• Fewer features and services• Fewer worldwide data centers |



1.Services that AWS provide :

EC2, Elastic Container Service and Registry, Lightsail, Batch ,Elastic Beanstalk , VMware Cloud on AWS...

2.Services that Microsoft Azure provide :

Virtual Machines, Virtual Machine Scale Sets, Azure Container Service(AKS),Container Instances...

3.Services that Google Cloud provide :

Compute Engine , Kubernetes



compute

[Elastic Compute Cloud \(EC2\)](#) is Amazon's flagship for **scalable computing on demand**, competing with Google's [Compute Engine](#) and Azure's [Virtual Machines](#) and [Virtual Machine Scale Sets](#). Amazon's service is the most comprehensive, but as mentioned, the [pricing for EC2](#) can get very intricate, and the same goes for Azure's [VMs pricing](#). Google's offering is somewhat less flexible, but the [pricing is a lot easier to follow](#) (see pricing section).



There's also the option of renting **computing processes for web and mobile apps**, which can offer significant savings when used instead of EC2 or Compute Engine if your apps fit in the specs of this service (see [AWS Elastic Beanstalk](#) and [Google App Engine](#) for more details).

If you want to **deploy [software containers with Docker](#)**, you should look at Amazon's [EC2 Container Service \(ECS\)](#) and [EC2 Container Registry \(ECR\)](#); Google's equivalent are [Container Engine](#) and [Container Registry](#). Azure's also on board with Docker with its [Container Service](#), though at the moment they are not providing a facility for private Docker registries.

Azure, since it's Microsoft's, also allows you to **deploy Windows client apps** with its [RemoteApp](#) service.



Storage

To **store objects** (that is, pretty much anything), Amazon [Simple Storage Service \(S3\)](#) is the service that's been running the longest, and as such it has [extensive documentation](#), including [free webinars](#), tons of [sample code and libraries](#), [articles and tutorials](#) and [very active discussion forums](#) where Amazon developers provide very useful feedback on a regular basis. Of course, Google [Cloud Storage](#) and Microsoft [Azure Storage](#) provide a service that's as reliable and robust, but the resources you'll find don't come even close that of Amazon's. That being said, Google and Microsoft may have an edge on the price, so read the fine print.



Database

WS provides ephemeral (temporary) storage that is allocated once an instance is started and is destroyed when the instance is terminated. It provides Block Storage that is equivalent to hard disks, in that it can either be attached to any instance or kept separate. AWS also offers object storage with their S3 Service, and archiving services with Glacier. AWS fully supports relational and NoSQL databases and Big Data.

Google's Cloud Platform similarly provides both temporary storage and persistent disks. For Object storage, GCP has Google Cloud Storage. GCP supports relational DBs through Google Cloud SQL. Technologies pioneered by Google, like Big Query, Big Table, and Hadoop, are naturally fully supported. Google's Nearline offers archiving as cheap as Glacier, but with virtually no latency on recovery.

Azure uses temporary storage (D drive) and Page Blobs (Microsoft's Block Storage option) for VM-based volumes. Block Blobs and Files serve for Object Storage. Azure supports both relational and NoSQL databases, and Big Data, through Windows Azure Table and HDInsight.



networking

AWS charges customers by rounding up the number of hours used, so the minimum use is one hour. AWS instances can be purchased using any one of three models:

- on demand – customers pay for what they use without any upfront cost
- reserved – customers reserve instances for 1 or 3 years with an upfront cost that is based on the utilization
- spot – customers bid for the extra capacity available

GCP charges for instances by rounding up the number of *minutes* used, with a minimum of 10 minutes. Google recently announced new [sustained-use pricing](#) for compute services that will offer a simpler and more flexible approach to AWS's reserved instances. Sustained-use pricing will discount the on-demand baseline hourly rate automatically as a particular instance is used for a larger percentage of the month.

Azure charges customers by rounding up the number of minutes used for on demand. Azure also offers short-term commitments with discounts.