

# CLOUD COMPUTING SERVICE PROVIDER

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## EXAMPLES

 Microsoft Azure



Google Cloud



Alibaba Cloud



IBM Cloud

**ORACLE**

CLOUD

## DESCRIPTION OF CLOUD COMPUTING SERVICES

Cloud computing is the on-demand, pay-as-you-go distribution of IT services over the Internet. Instead of purchasing, operating, and maintaining physical data centres and servers, you can use a cloud provider like Microsoft Azure, Google Cloud Processing, Alibaba Cloud, IBM Cloud, and Oracle Cloud to access technological services such as computing power, storage, and databases on an as-needed basis.

**Microsoft Azure** is the second place besides AWS for the best cloud computing services providers. The organisation offers a wide range of business-oriented services. Microsoft Azure delivers tons of new products, services, and updates every quarter as a result of years of research and development. Azure is the best-in-class hybrid cloud among other cloud vendors, with the capacity to immediately provision computer resources on-demand.

After Amazon Web Services and Microsoft Azure, **Google Cloud** is ranked third in Gartner's Magic Quadrant of cloud providers. Google Cloud has significantly extended its hybrid and multi-cloud workloads utilising Antos, which allows users to manage workloads across Google, AWS, and Azure in the previous year. Furthermore, Firebase, a Google-owned cloud mobile Backend-as-a-Service (BaaS) platform, has expanded quickly and is widely used by developers. Despite being built on top of Google Cloud, Firebase remains a popular BaaS platform.

**Alibaba Cloud** is ranked fourth among cloud service providers by Gartner. It was founded in 2009 to provide platform support to the Alibaba Group, but it is currently selling a variety of cloud services to organizations around the world.

After AWS, Microsoft Azure, Google Cloud, and Alibaba, **Oracle Cloud** is ranked fifth among cloud providers. Oracle Cloud is offered in 29 cloud regions throughout the world. Oracle clients can split their applications across at least three fault domains within each region, protecting them against typical hardware or power outages. Some areas have three availability domains, each with three fault domains, adding another layer of high availability and resiliency. Oracle cloud regions can deliver enterprise SaaS solutions like Oracle Supply Chain Planning, Oracle Fusion Cloud ERP, and Oracle Human Capital Management, in addition to customer workloads.

Lastly, **IBM Cloud** is ranked sixth among cloud service providers. Rather than competing directly with the major cloud service providers, IBM has partnered with Red Hat to accelerate hybrid cloud services throughout its portfolio. IBM Cloud now has a technology foundation that includes security and portability across numerous clouds, as well as the ability to extend its resources and capabilities, thanks to the acquisition of Red Hat. In the next three years, IBM expects to double Red Hat sales.

## SUMMARY

Explanation of cloud computing in detail through its functions. Five cloud computing service providers, that is, Microsoft Azure, Google Cloud, Alibaba Cloud, Oracle Cloud and IBM Cloud are described thoroughly. They are then compared between one another based on cloud offerings, cost and locations.

## REFLECTION

As we can see from all the descriptions and comparisons of the chosen cloud computing service providers, we can see that cloud computing gives great contributions to human life's **security**. All the chosen cloud computing company is most vocal about security offerings. Each year, they invest a sum of money in cybersecurity research and development. From this research, they offer their multi-layered security as a solution for us to take advantage of our information **without losing or leaking the classified data** from a hacker.

## REFERENCE

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## COMPARISON BETWEEN THE FIVE CLOUD SERVICE PROVIDERS

It is hard to differentiate between cloud service providers but as we carefully compare, we can distinguish one cloud service provider from another, even if it is a small difference.

One of the differences is when it comes to **cloud offerings**. Microsoft Azure top the list with more than 600 services, followed by Alibaba Cloud that offers 200 products in China. 100 products are provided by Google Cloud which then is grouped into six categories, that is, storage, databases, computing and hosting, networking, big data, and machine learning. IBM and Oracle, on the other hand, have 174 and 65 cloud services respectively.

In terms of **cost**, Microsoft Azure is known to be quite expensive than others. Some rather use Google Cloud as it is affordable compared to Microsoft Azure. The cloud service provider with lower cost is Alibaba Cloud which is around 25% lower than others. For Oracle, on the other hand, factors such as CPU and memory usage affect the pricing. IBM's pricing is based on negotiated rates and they do provide discounts for monthly usage.

We can also see the differences between cloud service providers according to their **locations**. Microsoft Azure is considered to be more available than other cloud service providers. It has 53 regions. Google Cloud is accessible in over 200 countries. It is divided into 25 regions. Alibaba operates in 23 regions and has 69 availability zones throughout the world. Oracle is offered in 29 cloud regions throughout the world. The IBM cloud network has 60 data centres and six multi-zone regions.