AWS VS AZURE VS GCP: COMPLETE GUIDE TO CLOUD PLATFORMS FOR THE ENTERPRISE

An increasing number of enterprises are making the switch to not only the cloud but multiple cloud platforms (multi-cloud) to support employee productivity, foster collaboration and drive business innovation. Indeed, the benefits of the multi-cloud environment are far-reaching and include reduced operational costs, higher accessibility and lower maintenance. All of these advantages are mission-critical to maintaining a competitive advantage in today's digital world.

As more businesses go through the digital transformation aspect of moving to cloud platforms, three of the biggest names in technology have answered the call. These are Amazon Web Services (AWS), Microsoft Azure and Google.

That being said, the process of choosing the right partners for your computing needs is not always easy. Let's take a look at the benefits of each of these powerful cloud platforms and how they stack up against each other.

AWS

With over 12 years of experience under their belt, AWS is one of the oldest in the market. AWS offers a number of features and benefits that make up their Infrastructure-as-a-Service (IaaS) platform. They've also more recently shifted to on-demand billing for service used, like their competitors, making AWS a much more attractive option for IT business leaders who continue to feel the pressure of shrinking budgets.

Features

There are four categories of offerings that AWS presents to clients. They are:

- Storage and content delivery
- Compute services
- Database; and
- Networking

AWS services are supported by a number of tried and true Amazon offerings that include Active Directory and AWS CloudHSM's key storage, that enables you to easily generate and use your own encryption keys via the AWS Cloud.

Benefits

Choosing a partnership with AWS for your enterprise IaaS needs offers several benefits including the following:

- Widest range of cloud service offerings for enterprise businesses over competitors
- Increases business agility
- EC2 compute engine is customizable
- EC2 features a number of integrations like Elastic Beanstalk for container service and Lambda
- Services a number of high-profile, blue chip customers
- Geared toward open source developers
- Supports commonly used development languages
- Deploy anywhere

If you're thinking about choosing AWS as your cloud platform, you'd be in good company. AWS has provided services for a number of major clients like Netflix, AirBnB and even the CIA.

Azure

Microsoft launched Azure several years after Amazon, in 2011 and quickly built a leading reputation. If you're an enterprise business considering Azure for your cloud computing needs, here's what you need to know.

Features

- Build websites in the cloud, using common programming languages
- Integrations include Windows Server and Linux Virtual Machine
- Migration assistance
- SQL database support
- Focal point is Virtual Machine capabilities supported by tools that include Cloud Services and Resource Manager
- Machine learning

Benefits

- Quick to deploy, operate and scale
- Increases business agility
- Has the bandwidth to take your business global
- Visual Studio development environment built in
- Supports integration

- Supported by secure login with Azure Single Sign-On
- Microsoft is no stranger to industry compliance standards
- Deploy anywhere

Microsoft's culture and position as a long-time leader in technology means Azure, by design, caters to the needs of various industries and their unique specifications.

Google Cloud

Google is an obvious trailblazer in internet domination and deployment of web-based services. The Google Cloud Platform is the same age as Azure, but what does it have to offer? Keep reading to find out.

Features

Google's cloud suite of tools includes:

- Google App Engine to build apps within the cloud
- Supports common coding languages
- Open source cloud environment
- Offers robust data analysis
- Google Cloud Bigtable noSQL database supported
- Emphasis on big data tool suites
- Allows users to create single-purpose functions that decrease the need for management
- CloudKMS offers security via encryption
- Cloud storage is a RESTful service for storing and retrieving data
- Migration assistance

Benefits

Google Cloud offers the following benefits to customers:

- Quick deployment and access to updates and functionality
- Increases business agility
- Continuous improvement allow Google to update the cloud without disruption to users
- Primed to facilitate collaboration
- Ownership of data
- Scalable
- Deploy anywhere

Google Cloud allows users to retain full ownership of all their data in Google Apps. Should they choose to migrate to another service, they can take their data with them.

The Scoop: AWS vs Azure vs Google

Microsoft Azure generally has the lowest on-demand pricing while Amazon tends to come in somewhere around the middle among the three major players.

For more information on how to estimate your costs with each of the platforms, see below:

- AWS Pricing

- Azure Pricing
- Google Cloud Pricing

However, when it comes to choosing one cloud platform over another, cost should not generally be a major determining factor. Overall, the choice must depend on your enterprise needs as you get ready for the next generation cloud.

AWS: Pros and Cons

AWS is a robust service that offers a lot in the way of benefits. But if you're thinking about making the shift to AWS for cloud services here's what you need to know to compare the offerings to the needs of your enterprise organization.

Pros:

- AWS offers a complete toolset with a wide breadth of functions available for users
- AWS has been perfecting cloud computing services since 2006
- This partner is seen as the gold standard for reliability, security, configuration option and monitoring
- The AWS cloud ecosystem and product offerings are viewed as a benefit to consumers
- AWS has more compute capacity than most of its competitors by 5x
- Multiple datacenter "regions"
- All major software vendors make their programs available on the AWS platform

Cons:

- Depending on the comfort level of enterprise businesses with AWS services, a steep learning curve may exist
- Enterprise level support must be purchased
- AWS was late to get on the on-demand billing for services bandwagon
- AWS doesn't have a strong hybrid cloud strategy for those businesses that want to keep sensitive data in a private cloud
- The wide catalog of offerings can be overwhelming and difficult to navigate for some users

Despite some high profile outages in years past, today, AWS is widely considered a reliable product for consumers seeking enterprise cloud services today.

Azure: Pros and Cons

Azure offers a familiar suite of resources that businesses can trust. Here's the scoop on pros and cons of Microsoft Azure.

Pros:

- Strong presence in the enterprise community
- Flexible billing
- Platform-as-a-Service (PaaS) is a strong suit of Microsoft
- Reliability and scalability
- High-availability
- Cost-effective compared to the competition

- Easy to integrate for firms already running a lot of Microsoft software

Cons:

- Outages have occurred causing experts at Gartner to suggest a good disaster recovery plan for Azure users
- Functions seem limited when compared against AWS
- Set up to support Windows; if you want to run something else Azure may not be the best option
- Requires enterprise management from customers

As mentioned above, the occurrence of outages isn't limited to Microsoft Azure. However, Microsoft has gone a long way to inspire confidence and trust in enterprise businesses due to its reputation for high quality service.

Google Cloud: Pros and Cons

Google is a powerhouse on the technology scene, and their cloud services reflect that. If you're thinking about choosing Google Cloud services, consider the following advantages and disadvantages.

Pros:

- Great reputation in open-source community
- Modern innovation, well-established in cloud computing
- Flexible pricing model
- Google Cloud is greener than some of the competition and working on getting credentials
- Second-to-none when it comes to building containers

Cons:

- Supporting large, enterprise projects has not been a focus for Google when compared to companies like Microsoft
- Outages have made some wonder if the product is reliable
- Range of functions lacks innovation, Google should focus on catching up with Microsoft and AWS

Google is a forward-thinking company with a lot to offer enterprise businesses. However, they have their hands in so many small project innovations, which means limited options for larger companies.

Final Thoughts

Today, the clear market leader in functionality depth and breadth is AWS. This is partly because they have the maturity in the market and the experience to deliver. But competitors like Microsoft and Google aren't too far behind.

In particular, Microsoft continues to gain headway on AWS. This is especially true because they are a trusted name in enterprise computing with a reliable model for those that already use Microsoft products or languages across the enterprise organization. Google also has a lot to offer in terms of innovation, and might be a good fit for those in the open-source, cloud community that focus on smaller projects.

Next Steps: Multi-Cloud Management

Implementing a multi-cloud management strategy that can support business agility while managing risk across complex environments is critical. BMC can assist with our Multi-Cloud Management solutions which cover cloud cost, visibility, performance, security, automation, and migration. Whether you are just starting out or looking to house mission-critical operations, BMC cloud management offerings can meet your needs. For more information on our cloud management platforms, contact our team today.