Cloud Vendor Evaluation Report

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**Introduction**

Rapid growth in cloud computing technology has triggered stiff competition among the key cloud providers. For decades, the companies have shifted their strategies towards Cloud Computing and therefore, the concept has been wholeheartedly adopted by business leaders. The concept of Cloud Computing is described as the delivery of computer services including, storage, database, servers, internet, and software to customers. In the market, there are several firms providing Cloud Computing services. According to a report presented by Massachusetts Institute of Technology (MIT), globally there are hundreds of firms providing Cloud Computing services. However, major players in this industry are Google Cloud, Amazon AWS, and Microsoft Azure. A study conducted by Jain (2018) pointed that adoption of cloud computing has emerged to be the driving force for several business today. Several applications which are used for running business are being taken out of premise for efficient business management. However, before, acquiring and installation of cloud computing services, properties or features of provider must be analyzed for quality of services. Therefore, this report presents analysis of three major Cloud Computing Corporations Amazon AWS, Microsoft Azure, and Google Cloud. It revealed the performance of each firm’s cloud system based on properties. The analysis is based on cost, scalability, application, support and financial viability.

**Evaluation of Cloud computing providers**

Amazon AWS is a widely known Cloud Computing provider. It has a string financial viability and the largest market share in cloud computing provision. According to Dignan (2019), it is valued at $220-$250 billion by 2018, and has a market share over 15% of the market share. It has elaborate organization structure. Amazon AWS is managed by Chief Executive Officer (CEO) and it has a board of directors, management committee and staff. It practices democratic leadership for its successful management for last decades. The final decision maker of Amazon AWS is the board of directors and therefore, it practices hierarchical type of leadership to ensure that it succeeded in the market. The illustrated diagram below is the organizational structure of Amazon AWS. Microsoft Azure and Google Cloud have vivid structure of operations. Microsoft has the board and the CEO the same to Google Cloud and therefore, their operational structure and management is very clear.

Amazon AWS, Google Cloud and Microsoft Azure have supporting and customer care representative operating 24/7hrs**.** According to Forbes publication, Amazon AWS is the largest firm in terms of work force. Most of its work force are in support and customer care. It is therefore, evident that it has structured and skilled support team to provide services to customers. Though in terms of workforce is not ranked among the highest, Google and Microsoft has strong and viable support and customer care team. Amazon AWS is the largest service cloud computing firm. It has been in the market for over twelve (12) years, Microsoft Azure over (seven) 7 years and Google Cloud is the latest arrival with only (six) 6 years in cloud computing market.

**Features and Services**

Making decision on one cloud over the others is one of the difficult tasks. It requires a customer to investigate and find a firm which can fullfil his or her needs and wants based on the workload an individual or a company run. As pointed by Choudhury (2018) hard choice usually fornce organizations to use multiple providers to ensure there is stability, realibility and flexibility. The key concept of the cloud computing is the realibilty and flexibility. However, there are several differentiation factors which separate the approaches which are being applied by the three firm that can provide assistance to the end users of cloud system.

In a study “Wha is the best cloud platform for enterprise” condcuted by Carey (2019), it is established that Amazon AWS, Microsoft and Google Cloud platform provide barely the same flexibility, capability, storage and networking services. These cloud providers do share he common element of self service and instant provision, security and autocalling. The three companies have invested heavy in there cloud computing system and all there have a strong and stable parent company to provide necessary support for investing in cloud computing system. It is therefore, evident that Amazon AWS, Microsoft Azure and Google Cloud provide cloud computing services under similar platform. For instance, Amazon AWS provide Elastic Map Reduced, Microsoft Azure HDInsight and Google Dataproc. Although the three major cloud provider

Amazon is dominant is the provision of several features such as monitoring, configuration, security and others. It has extended friendly services making it the best provider of cloud computing services according to Forbes technology publication. It is open and very flexible with a global reach. It is therefore, can be used in several countries compared to its immediate competitors. Though it has been established that Amazon AWS has global reach and preferred by organizations, the evaluation of its usability discovered that, it is difficult to use compared to its primary competitors in the cloud computing market. The management cost of Amazon AWS is high and it has 62% of the cloud computing market share (Patrizio & Harvey, 2019). It means Amazon is the largest cloud computing firm worldwide in terms of customer based and asset investment. It is therefore, evident that the AWS cloud computing suitable and has clear history in terms of service provisions. It is established that Amazon is committed in cloud technology and it is investing a lot of finances in data center across the world. According to Carey (2019), Amazon is found worldwide due to huge investment it has made in clouding in the last few years.

Azure Microsoft is a great cloud computing firms which offers variety of services to customers. Azure Microsoft is integrated with several Microsoft tools, and this gives it a broad feature set compared to other providers like Amazon AWS. It is ranked first in developed and testing tools and also provides open source and hybrid clouding services to its customers (Dignan, 2019). Though evaluation of Microsoft Azure shows that it best and several applications because of its partnership with the parent company, Microsoft, it is less efficient in management tooling and less enterprise ready. This could affect its performance in the market. Azure Microsoft has only 20% of the market share.

Google Cloud is widely known and has been in the market for over 6 years. It provides cloud computing supported with several open source applications. It provides discounts and flexible products to customers compared to Amazon AWS and Microsoft Azure. It is purely designed for cloud base business. It provides fewer services and features to customers. Google Cloud has only 20% of the market and this could because it entered the cloud computing market later after Amazon AWS and Microsoft Azure (Dignan, 2019). However, in terms of ability to meet requirement, organizational structure, system performance and maintenance fee, Google does not have a clear and affordable plan to address the concerns.

It is important to note that Amazon AWS has dominated the cloud computing services since 2006 when it first started offering cloud computing services. However, on the aspect of features and solution the diagram below provide vivid summarized features and solutions of AWS, Azure and Google Cloud.

|  |  |  |  |
| --- | --- | --- | --- |
| **Features**  | **Amazon AWS** | **Microsoft**  | **Google cloud** |
| Maximum Processor  | 128 | 128 | 96 |
| SLA Availability  | Amazon provide 99.9% annual uptime  | 99.9% uptime  | 99.99% uptime  |
| Operating Center  | Variety OS: Windows, CentOS, Ubutu and oracles | Variety of OS: Ubuntu, CentOS and oracles.  | Variety of OS: Windows, Ubuntu, and CentOS.  |
| Maximum memory  | 3904 | 3800 | 1433 |
| Market Place  | AWS market place  | Azure market place  | G-Suite market place |

**Azure, Google Cloud and Amazon AWS: Storage**

In terms of service selections customers looked beyond availability and most clients focus on the space it offers its customers. Storage is the main function of cloud computing and therefore, services which are offered by storage are domain and others. However, Amazon provides a long running storage services compared to Google and Microsoft.

|  |  |  |  |
| --- | --- | --- | --- |
| **Storage**  | **AWS** | **Azure**  | **Google Cloud** |
| Object Storage for users | Infringed access | Storage archives  | Nearline Cold line |
|  |  |  |  |

Amazon provide scalable object for storage of data. According to Patrizio & Harvey (2019), it offers storage based on the needs of customers. It has a long term cold storage system, which make it able to provide quality services to customers. It has EC2 Container Service and EC2 Container Registry which allow customers to operate well with Dock container. Google cloud and Microsoft Azure storage system s are of high quality and provide flexible storage services to customers. Amazon AWS has storage infrastructure worldwide and Microsoft Azure but Google Cloud still does not have a wider reach and data center globally. This makes it not flexible compared to its competitors in the market. Therefore, Google Cloud is not scalable compare to Amazon, it has lower scalability score.

**Summary**

Cloud computing has grown and several companies are providing related services. Though there are several firms, this study has established that Google cloud, Azure Microsoft and Amazon AWS are the leading providers of cloud computing. Google cloud is the underdog among the three major cloud computing firms providing clouding computing global. Amazon AWS is the leading in the provision of cloud services because of its high scalability, flexibility and reliability. It is obtained that it has data center worldwide and this gives the company reliability and availability needed by most users of cloud computing services. Although Google Cloud is the underdog in the field, it is the most affordable cloud computing firm. It offers the most affordable services with variety of end users application compared to Amazon AWS. But Microsoft AWS is the leading in terms of application to the end users. However, the most preferred cloud computing provider is Amazon because it has a wider reach and provides stable, reliable and scalable cloud services to its customers. In terms of storage, it is established Amazon and Microsoft Azure provide similar storage capacity and processor of 128 compared to Google which only provide 96 and therefore, the different which exist among the three major providers is based on the structure or infrastructure and the way services are provide. The security provided by Amazon AWS, Azure Microsoft and Google Cloud and therefore, the security of the data hosted by the three firms are highly protected.

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