Software Applications for Business - Individual Report

Student Name: Arnas Karciauskas

Student Number: 16457054

Subject: Cloud computing and the competitive advantages that it brings to Microsoft

**Introduction**

In this assignment, I will write about the Cloud computing and the competitive advantages that it brings to Microsoft. I will be writing about cloud computing in general and the advantages and disadvantages that it brings to a business who might consider using cloud for their operations. Microsoft is one of the leaders in cloud computing and has developed 2 very popular cloud computing packages which are Microsoft Azure which is a cloud computing service that allows building, managing and deploying of applications and services throughout the network and OneDrive which is a cloud based file hosting and sharing service. I will also write about the main types of cloud software currently available.

**What is cloud computing?**

Cloud computing is a type of computing that uses internet connection to provide the computing services. Cloud computing uses include: servers, website hosting, cloud based software, databases, storage services (images, files, software). Cloud computing relies on the internet connection and it is required in order to use most of the services provided by it. Cloud computing is gaining popularity very quickly and it will likely be used much more in the future because it has many advantages over other similar packages. There are many cloud based software providers. Some examples of software based on cloud computing are:

* Microsoft Azure
* OneDrive
* Trello
* Sage
* Salesforce
* Google Drive
* Google cloud

**Types of cloud computing services**

There are 3 main types of cloud computing services available and they are:

**Infrastructure as a Service (IaaS)** – This type of service provides servers, storage, networks and software that acts like that of a data center and acts as a replacement to an IT infrastructure.

**Platform as a Service (PaaS) –** Provides servers on which users can run their own software and basically acts as its own cloud based operating system.

**Software as a Service (SaaS) –** Software as a service provides same functions as a regular offline based application, however it does it through an online connection. There are few advantages of that which are:

* Storage space
* Servers
* Application development

This is the most popular cloud computing usage service and is becoming very popular for businesses.

**Benefits of cloud computing**

Cloud computing has many benefits and modern businesses should strongly consider looking at implementing the use of the cloud for their business. Here are the main benefits of the use of cloud computing:

**Cost:** For a business, the use of cloud computing means that you are not required to buy and maintain your own hardware and software which can be very costly. Cloud computing provides all the services at no additional cost for you. Cloud computing is able to provide the user with all the resources required almost instantly, as a result there is no disadvantage to using cloud based services compared to buying your own hardware and software. These features give the businesses a large amount of flexibility.

**Accessibility:** Cloud computing is based on the presence of an online connection, meaning that the users of cloud services can access a cloud based service anywhere as long as connection is present. This gives the users of cloud software great flexibility.

**Maintenance:** Hardware requires maintenance which is time consuming, costly and prevents the user from using it during the maintenance period. Cloud services ensures the reliability of the components and prevents any by subsidizing.

**Updates:** Cloud services are automatically updated, meaning that up to date high quality service is always provided, software or service is never out of date.

**Backups:** Cloud computing provides greater data security than other means because all the data is stored in the cloud, no matter what happens to the data a copy is always accessible no matter what happens to the original data.

**Disadvantages**

While cloud has many benefits it also has some disadvantages, some disadvantages are as follow:

**Downtime:** If for whatever reason a cloud server is down then all the access to the service is lost until the issue is resolved, this can cause a business a significant loss.

**Security:** As cloud data is stored on the cloud servers it means that the unauthorized access to data is possible which can compromise the details of the company such as e-mails, passwords, usernames, addresses and other confidential information. Hacking is also possible which could lead to confidential company information being stolen and cause monetary loss for the company.

**Limited control:** Because cloud is owned by the provider, the user is unable to make any real changes to the service provided. This means that the user has to rely on the provider for management of the infrastructure.

**Cloud computing and Microsoft**

**Microsoft Azure**

In 2010 Microsoft, has released a cloud computing service for building, deploying and managing applications and services using the cloud called Windows Azure later which was renamed in 2014 as Microsoft Azure. Microsoft Azure provides software, platform and infrastructure. It has great computability with various programs, programming languages and frameworks which do not necessarily have to come from Microsoft. Microsoft states that Azure provides over 600 services. Some examples of services provided by Azure are as follows:

* Websites
* Virtual Machines
* Mobile services
* Storage services
* Data management
* Messaging
* Development

Because Microsoft allows easy collaborations with other programs such as OneDrive, Drobox and other applications it gives it an advantage over other cloud software providers. Microsoft Azure is one of the most popular cloud software in the world.

Microsoft is the biggest investor in cloud computing services. Recently Microsoft has invested 3$ billion in cloud computing services in Europe. Microsoft has outlined that its focus is providing the accessibility to cloud all over the world and will continue regularly investing in the cloud computing technology. It will be Microsoft’s main goal to focus on mobile and cloud computing in the future to gain competitive edge in the cloud services against other companies. Microsoft is aware that cloud computing is the future and this awareness gives Microsoft the edge against other cloud computing developers.

**OneDrive**

In 2007 Microsoft, has launched a file hosting service that allows its users to store files, photographs or any other type of personal data. Once the files are stored on the Microsoft servers then they are accessible anywhere if online connection is present. OneDrive even allows access to the files from mobile phones. The stored files can be easily shared with other users or can be made public. OneDrive offers 5gb of storage space for free, in order to get a larger storage capacity, it is required to subscribe to other Microsoft services.

**Recommendations**

Microsoft is strongly focusing on its cloud computing services which gives it a significant advantage over its competitors as cloud software is becoming very popular and will likely become even more popular in the future. However, Microsoft seems to focus mainly on the areas which already have great cloud service capabilities and seems to be investing in Europe and United States where cloud computing already is very popular and used. My recommendations for Microsoft would be to focus on other countries around the world which do not currently have good cloud capabilities and awareness of the cloud services. If Microsoft would focus on other areas of the world, then it could increase its popularity even more as there is a potentially huge market that would open up if Microsoft were to invest in other regions around the world. Data centers could be opened in regions outside of Europe and United States to diversify its operations around the world. Microsoft’s main competitor is Google, Google is starting to focus on the provision of cloud services which means that it could become highly competitive to Microsoft, which Microsoft needs to be aware of as Google’s recent investments show that they aim to take over the dominance of Microsoft in the area of cloud computing.

**Conclusion**

Microsoft is currently one of the leaders in the world regarding cloud computing technology, It continues to invest heavily in the cloud computing which gives it great advantage over other cloud computing providers. Microsoft Azure is very extensive and hugely popular cloud computing service together with OneDrive which grows in popularity due to its convenience and ease of use. Microsoft understand its customers’ needs and continues to improve upon it which gives them a good reputation and a good brand name which results in customers staying loyal and recommending to use Microsoft’s cloud products. Because of its investment, focus on the future and understanding of customers’ needs it is very likely that Microsoft will continue to lead the market with its advanced cloud computing services. Microsoft is not the only company, however that is focusing on cloud computing services. Google, IBM and other well-known companies are starting to focus their efforts towards cloud computing. It is more than likely that cloud computing will almost replace other types of computing services as all devices are becoming connected with everything else, for example phones, tablets, laptops and personal computers all can share the same information just by using one cloud based application such as OneDrive. By using OneDrive same files can be accessed on any device if online connectivity is present. As the world continues to advance in the provision of high speed internet and coverage, the cloud will become more popular around the world. Cloud computing is advanced enough to offer high performance services to the users, eliminating the need of expensive hardware. To summarize: cloud computing will become very popular in the future and most businesses will use some form of it because it is convenient, effective and constantly updated by its providers.

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