# What does it do?

Cloud computing refers to the delivery of on demand computing services typically over the internet and on a pay as you go basis. Initially cloud computing was adopted by large companies looking to lower their running costs, but now most people use some sort of cloud computing service. Cloud computing has emerged into becoming a huge part of many businesses infrastructure as it not only provides companies with computing power and storage resources that increase, and decrease based on their use. But also, takes the stress and costs of purchasing and maintaining the data centres off the mind of the client’s businesses.

There are 3 types of clouds that depend on the location of the servers. A public cloud which is the most famous type of cloud is when the computing infrastructure is at the cloud provider’s company or the user has no physical control over it. Examples of the public cloud include Microsoft azure and amazon web services. The next type is the private cloud which is when the cloud infrastructure is owned and used by the same organisation. Thirdly there is the Hybrid cloud which means that the company uses both a public and private cloud based on their purpose.

There are four types of services that cloud computing provides. Firstly, there is infrastructure as a service (IaaS) where you basically rent servers, virtual machine or networks on a pay as you go basis. IaaS provides multiple advantages to the client’s business as it allows his business to be more secure and provides it with the ability to expand elastically to a global scale. Then there is Platform as a service (PaaS) Which provides the client with a platform to develop, test, and manage software applications which provides the client with better accessibility and scaling to their work. Software as a service (SaaS) is a method for delivering software applications over the Internet which is expected to take up to 75 per cent of total cloud workload and is used by many software companies such as Netflix and amazon prime. Lastly there is Function as a service (FaaS) which overlaps with PaaS but differs in that the cloud provider handles the setup, capacity planning, and server management for you which focuses the client on developing a software without having to manage the server. FaaS is also event driven meaning it only uses resources if a specific function triggers reducing its pay as you go fees.

Cloud computing is expected to replace the normal use of data centres as according to Cisco. Cloud data center traffic will represent 95 percent of total data centre traffic by 2021, compared to 88 percent in 2016. The growth of internet of things also goes hand in hand with the dependency on cloud services as data centre traffic is expected to reach 19.5 zettabytes (ZB) per year by 2021 which is a huge increase from 6.0 (ZB) per year in 2016

A big concern that companies have always had with using cloud computing is the security. As in normal data centers the company would have to worry about designing and maintaining a security system to protect the data on the servers and the networks transporting It on both the software and hardware levels. But using the cloud would mean that they would have little to no control over that, which has led to growth in cloud security tools, which monitor data moving to and from the cloud and between cloud platforms. These tools monitor any unauthorised use of the data, unauthorised downloads and malwares and are improving every day to make sure that the client’s data is safe and accessible.

# What is the likely impact?

The cloud has had and will continue to have a huge impact one the IT field as companies become more and more dependant on it for their Data. Over the past few year cloud computing has been growing exponentially creating a huge demand for IT professional especially Network engineers and cybersecurity experts. The likes of google and YouTube give us a clear image of how cloud computing changed and will continue to change our world as it makes us evermore connected. Where now events can reach the four corners of the world within minutes just by being viral.

The cloud offers a huge benefit to developing countries as they don’t have to invest in costly infrastructure when they can easily access the data and software needed through the cloud. Cloud computing has also taken up an important role in its use in the health care system. Having cloud services in the healthcare system means that with a press of a button a doctor can find your medical full medical record to help him make timely life and death decisions.

Impact from cloud computing could also be seen in the ability of most IT companies to keep their business running at a relatively smooth pace during the covid-19 pandemic due to having the ability to allow most of their employees to continue working remotely from their home and access their resources through the cloud. This not only benefits the company as it allows it to navigate through crises with relatively more stability than other companies. All of this has allowed the cloud to prove to be a much more reasonable choice than owning infrastructure. This has caused most data centres to become cloud data centres making the normal use of data Centers seem redundant except for certain security or speed reasons.

# How will this affect you?

In my daily life cloud computing has immensely affected me and the people around me in many ways. Chances are me and probably everyone I meet has used social media before. With Facebook having more than 15 million Australian users and Instagram having up to 5 million users. Most people do not realise but when they upload data, images, and videos all of that is stored on the company’s cloud, with some applications being cloud based themselves. Even online shopping companies like amazon utilize the cloud by accessing your information when you log in to provide you with their recommended products based on your previously viewed or purchased products. Cloud computing is also used by most people for their personal storage such as apple’s iCloud where most iPhone users store their photos. Or if you need to share a large file with another person you would probably use dropbox or a similar cloud to share it.

One of the more advanced ways the cloud is being use is in the health system. With new technologies today like the apple watch which allows you to record specific information such as your heart rate and save it to the cloud. This data can then be accessed by a physician who can monitor the health of their patient. Cloud computing has also allowed me to continue my education through the COVID-19 pandemic by accessing the university resources through canvas. Having the data and resources stored on the cloud allows me to work from the comfort of my home. It should also be noted that primary and secondary schools are also adopting cloud technology in various ways such

as by replacing textbooks and using programs like Microsoft Office 365 to save on software licensing.

Referencing:

*Steve Ranger (2018), What is cloud computing? Everything you need to know about the cloud, explained, viewed 29th April 2020 <*[*https://www.zdnet.com/article/what-is-cloud-computing-everything-you-need-to-know-from-public-and-private-cloud-to-software-as-a/*](https://www.zdnet.com/article/what-is-cloud-computing-everything-you-need-to-know-from-public-and-private-cloud-to-software-as-a/)*>*

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