IT TECHNOLOGIES

Clouds, services, servers

First of all, let us address what Cloud is in the first place and how it can be classified. To an everyday non-technical user, the Cloud amusingly means files get stored in the sky somewhere invisibly. But at a deeper level, with a better understanding, Cloud is more than this. Your photos for smart-phone devices, digital cameras, everyday documents get stored on services such as Google Drive, Microsoft OneDrive, DropBox, SugarSync, Apple iCloud, to name just a few. Synchronisation across multiple devices is possible, even if they run different operating systems.   
  
Now let us define Cloud further -   
  
This is how a ResearchGate publication defines this (in-citation provided)   
  
"Zhang, Qi & Cheng, Lu - 2020 Journal of Internet Services and Applications.*"Cloud computing has recently emerged as a new paradigm for hosting and delivering services over the Internet. Cloud computing is attractive to business owners as it eliminates the requirement for users to plan ahead for provisioning, and allows enterprises to start from the small and increase resources only when there is a rise in service demand. "(PDF) Cloud Computing: State-of-the-art and Research Challenges*. [online] ResearchGate. Available at: <https://www.researchgate.net/publication/225252747\_Cloud\_Computing\_State-of-the-art\_and\_Research\_Challenges> [Accessed 9 Jul. 2020].  
  
In my own words -   
  
Cloud can be physical servers hosting a variety of in-house or external service provider based resources for the end device user be it a PC, tablet, smart-phone, developers, designers, even mechanics can use the service. It does this through the following classifications   
  
Public –Pooling of virtual services that provide storage and resources to everyday users – (Storage, workloads, virtualisation) avoiding facilitation of costly storage mediums (SD cards in phones/cameras, larger external/internal hard drives on computers and other media such as DVD/Blu-ray optical discs)   
  
Private – Same resources as Public Cloud, however, usually used by one client/customer/business entity. It's not shared with others outside of the infrastructure. This provides the possibility of on-premise Cloud in a data centre, at higher cost needing physical servers, and management of the equipment.   
  
Hybrid-cloud – Generally purpose-built Private/Public combination cloud services. Examples of providers that utilise this type of service (top 5, see citations)   
  
Top 5 Hybrid Cloud Providers:

* Amazon
* Microsoft
* Google
* Cisco
* NetApp

NetApp provides on tap storage, mainly for businesses, Cisco focuses on security, networking, and governance. Amazon provides on-demand virtualisation primarily as well as storage (think of an appliance) Microsoft provides Storage, and is a competitor to Amazon with it’s Azure service. In the future, I believe Cloud will be the more prominent default storage option and also provide a virtualised desktop on the move which people will be able to access from just about any machine and integrate storage cloud solutions into this. Applications, files, desktop settings, preferences – basically everything is available to the person with far less risk of things going wrong.

So in summary – Cloud is a service requiring the use of higher end computing servers either on-premise or remotely accessed providing a convenient means of storing information that can be accessed anywhere with an internet connection. This is what makes it all possible, faster bandwidth. Cloud would not have thrived in the days of Napster, Lime-wire and 56K Dial up internet when Operating systems struggled to run basic software without crashing at the best of times.

What is the likely impact?

How will this affect you?

CITATIONS for in-text and research shown/provided.

Čandrlić, G., 2020. *Cloud Computing - Types of Cloud*. [online] Globaldots.com. Available at: <https://www.globaldots.com/blog/cloud-computing-types-of-cloud> [Accessed 9 Jul. 2020].

"Zhang, Qi & Cheng, Lu, 2020, <https://www.researchgate.net/publication/225252747\_Cloud\_Computing\_State-of-the-art\_and\_Research\_Challenges> [Accessed 9 Jul. 2020].

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John Buni, C., 2020. *Cloud computing could look quite different in a few years*. [online] VentureBeat. Available at: <https://venturebeat.com/2019/06/02/cloud-computing-could-look-quite-different-in-a-few-years/> [Accessed 9 Jul. 2020].