COSC2196 Assessment 2

IT Technologies

Clouds, Services and Servers

What Does it Do? (600 Words)

Clouds, Services and servers are a group of technologies and concepts that combined allow for the storage of information and the execution of applications without requiring the use of local resources beyond the bare minimum to access The Cloud.

Combining the internet, hardware, services, applications and networking all of which used to be localised within an organisation, The Cloud externalises the costs borne by an organisation and provides functionality on a pay per use basis. The Cloud is the server/data room of the world, the Internet is the network of the world and Software as a Service (SaaS) are the applications which used to be developed inhouse and are now able to be purchased based on licenses, data consumption or transaction costs. By leveraging the scale of the entire planet to provide The Cloud, costs for an individual organisation are dramatically reduced while reliability and redundancy are dramatically improved.

The present day Cloud is a clunky, manually accessed and maintained system which is in the process of transitioning to an open source, automated commons. While presently there are multiple cloud based providers there is already a clear trend to open sourcing the provision of cloud technologies with technologies such as Docker and Kubernetes used to create containers which will allow the portability of data, applications and services from one cloud provider to another. While presently a business might have five or more cloud providers each of who specialises in one functionality, such as file storage and sharing (OneDrive, Box, Dropbox) in the future, consolidation of providers which will be driven by commoditisation of the technology will mean that there will only be a small number (maybe only 2) of cloud providers for the majority of any business’s or individual’s needs. Similar to the market for CPU’s, Operating Systems and most other technologies.

Once the basics of Containers and The Cloud have been resolved to an open source industry standard specification, the value for the Cloud providers will be in how they can leverage their AI to efficiently allocate resources and how their AI can build new applications from combinations of containers which provide the “lego” like building blocks. The Cloud in the future will be able to autonomously build and scale systems, translate languages and currencies and even concepts all without requiring any human input. The twin forces of commoditisation and AI will drive The Cloud to be faster, cheaper and more reliable with less and less human oversight needed.

What is the Likely Impact (300 words)

The impact of the containerisation of applications, hardware and services cannot be understated, the majority of people employed in a business are taking the output of another business’s application (Accounts, reports, sales) and entering it into their own applications, to be processed and then the output provided to another business to be used as an input.

Initially the simple business processes such as accounting will be moved into the cloud, then the communications between businesses applications will be automated, then the applications themselves will be integrated using AI to link company X’s Accounts Recievable with Company Y’s Accounts Payable. Then the Ai will link company G’s sales forecasts with company X’s production system. In the end there can be only one!

Basically if your job involves taking someone else’s data and re-entering it and then producing a report for someone else without adding any insight into the result then The Cloud (combined with AI) will replace your job and make you redundant.

The effect of this revolution in The Cloud will be felt in human employment by everyone, everywhere on the planet. No industry will not be reduced in the number of employees required, the amount that those employee’s labour is worth and the only people who will prosper in this environment will be people who can create value which cannot be identified by an AI. Artists and inventors are likely to be the only people who will produce an output valued by people with the ability to reward their enterprise

How will this affect you?

In the present the ability to leverage the cloud provides a cheap and effectively unlimited means of storing information for what could be longer than the lifespan of the human race. I use the cloud personally and in my day to day business to provide redundant storage for information such as photos, invoices and files. The cloud will, over time be integrated into the fabric of my life and everyone else’s lives. Already I use services such as Google Maps timelines to produce Invoices and to provide Log book records for my business. As Governments and organisations start to integrate their processes into The Cloud my checking Google Maps and producing a report for the ATO will be replaced by The Cloud updating the ATO in real time.

My family and friends also use The Cloud for similar purposes. Every time one of my family replaces their front end access to The Cloud (iPhone) they are using the redundancy, backup and reliability of The Cloud to allow them to simply turn on a piece of technology and provide their cloud login details without having to know anything regarding the systems, or processes involved.

Future impacts, while adverse to employment and very concerning regarding the amount of data and who can access and analyse this data may also allow people more free time to explore their artistic desires without needing to work to simply provide a lifestyle. This however would require a massive restructure of capitalism, society and civilisation.

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