# Module 1 Assignment

# 1-3 Journal: Common Cloud Computing Services

# DAT 260 Emerging Technologies/Big Data

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As a women in my mid- forties, I have had the privilege to watch the emergence of technologies in ways that as a child I could only dream of. It was often taught in my formative years that technology was malicious yet my drive for knowledge drew me to its complexity and advantages it provided society as a whole. Now as I embrace this landscape, the limitation from prior experiences grants a perspective of positivity that change empowers and has an impact on my existence. Much like the clouds that I once laid upon a hillside watching roll across the sky with endless possibilities cloud-based tools have changed shape evolving into a staple of daily life.

What began as my very first web-based email in 1998 using Microsoft’s Hotmail set up for the sole purpose of connecting with new friends that lived states away when the cost of long distance was taxing to my young adult self, has progressed to a world filled with apps and media streaming. Even has I type this journal entry I am utilizing my cloud based One Note to collect my research and allow for effortless flow of writing. From home to work life where use of Slack, a collaboration platform, allowing for product management and communication between my peers the evolution of cloud tools has shaped my experience as a user giving confidence to explore innovative technologies as they advance.

Within the field of biomedical product development that I am employed in, several considerations for a cloud deployment model had to be examined from the user’s perspective before implementation. Due to the proprietary trademarks of the sensitive data in which we create and work with on a global platform security and compliance was on the forefront of decision-making so private cloud services was essential. This in addition to workload assessment as product development and management has many moving parts and divisions the model required predictable performance and scalability facilitating predicted growth. As with many industries, biomedical development is vastly regulated especially when marketing on a global scale. This can be challenging in regard to implementation of a new cloud service model for users. Clarification of legalities for what data can be stored within the cloud both currently and forecasting future legal obligations while keeping in mind that privacy of sensitive data is and will remain the highest security concern (PricewaterhouseCoopers, 2021). These factors along with the cost implications must be addressed when choosing where to place the initial investment.

As a technical product manager, a subsect of my position is data analyst therefore collaboration with IT personnel is required to get the services I need to complete in-depth evaluation allowing for the information to tell its story. This can be rewarding yet challenging as the language spoken within these profession can differ. Understanding the different cloud computing services models promotes a mutual beneficial conversation in establishing needs. These include Software as a Service (SaaS) used in common productivity tools such as Excel that allows a user to access over the internet manageable from anywhere granting unified analyzing of data and sharing of documentation (Google cloud, n.d.). Another of the three distinct cloud computing services would be Infrastructure as a Service (IaaS), keeping in mind the type of data being stored and networking requirements this can include public, private, and a hybrid. Centered on personal business needs as discussed previously private is necessary as it is reserved to a single organization providing constraint and protection while tailoring resources to our identifiable obligations. Lastly, Platform as a Service (PaaS), similar to IaaS in that it has the same options for cloud modeling it focuses on user- ready software applications that tolerate basic construction of application programming interfaces (API) like that of mobile apps while delivering a flexible setting for data handling (What Is Google App Engine (GAE)?, 2023).

An organization may need these distinct services listed above as it gives a diversity of alternatives to be customized constructed on its own unique needs and requirements to design a cloud strategy that is not a one size fits all approach. Therefore, justifying the individual benefits and balancing the drawbacks each model has on infrastructure setup. While each of the considerations has cost implications like that of SaaS which is subscription based to IaaS pay as you go customization as business needs development over time the security also differs (Preimesberger, 2021). PaaS with its built-in features and upfront operational cost in comparison to SaaS where a company must take into consideration additional data encryption and certifications all are factors that must be evaluated when deciding how to launch a cloud computing service that is a precise balance based on organizational objectives.

Resources

PricewaterhouseCoopers. (2021). Five challenges to cloud adoption and how to overcome them. PwC. <https://www.pwc.com/m1/en/publications/five-challenges-cloud-adoption-how-overcome-them.html>

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