**ECPI University**

**Cloud Solution:**

**“Providing Cost Efficient & Intelligent Solution to Business”**

**CIS 142**

**Rafat Khandaker**

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**Introduction**

Today, cloud technology is offering fast, cost-efficient solutions to business needs and demands are growing at an accelerated rate. Many companies have already benefited, greatly, from the use of cloud computing technology. Microsoft, Amazon, IBM and other technology companies are quickly developing their own cloud solutions to businesses. Many other technologies, in development, are also turning towards integrating with the cloud. Overall, cloud technology is taking over the market at an accelerated rate; developing the new generation of computer technology, providing maximum efficiency, uptime, automatic-scalability and quick development to new technologies.

**Cloud Definition**

The “Cloud” is a way to describe a service that has been deployed into internet for easy accessibility for everyone. This “Cloud” is a service provided and hosted on the internet, classified in multiple categories: SaaS, PaaS, IaaS and XaaS. Cloud category describes the layer of technology that the cloud offers. The common services offered by the cloud come in the form of computer hardware resources hosted on the internet, an entire server; to an integrated software that serves to operate at a particular layer of business: multimedia, video hosting, social-media, payroll & Etc.

**Articles**

Printed in Microsoft’s customer stories: “Skanska USA Accelerates Jobsite Monitoring Innovation with Cloud platform,” on 2014, a large construction company was able to quickly develop a technology on Microsoft Azure that created significant change to their business. The company was faced with a challenge to support hundreds of jobsites with more than 9,600 employees in 39 offices around the US **(1)**. The company required a solution to actively detect subtle environmental changes throughout their work day. With the ease of cloud technologies being able to deploy quickly, a cost-effective solution, the company was able to develop a system that can monitor the worksite, actively day and night, while pushing alerts to workers when environmental conditions are changed. The challenge to overcome were maintenance of a potentially large system to host the database for such a project. Microsoft Azure was able to provide the technology to develop the project on .Net environment and also host the technology solution on the Cloud.

Many similar stories are hosted in Microsoft’s customer stories, including providing internal business needs for an airline to provide entertainment services for their customers. The business was able to save money and enhance the customer experience by providing 7,000 tablets hosting X-Box games, movies, latest TV shows and magazines **(2)**. In this story, cost effective solutions allow companies to invest into technology that provides luxury in spaces that would not have other-wise been considered.

Another advantage of the cloud, includes its effectiveness and integration with multiple mobile devices, that are constantly syncing data and updating at real-time. 3M created a solution using Microsoft Azure, to develop a mobile platform that will sync data with the cloud and provided support for 200 countries **(3)**. The solution is capable of handling $38 Billion dollars' worth of transactions with the cloud **(3)**.

Xerox was able to create a cloud solution to provide documentation for 140,000 employees in more than 180 countries by implementing a cloud solution **(4)**. Xerox was able to develop the XstreamVideo platform with a team of developers and pay the cloud provider to maintain the system **(4)**. In this implementation, the company was able to deploy a service without having to manage large datacenters and hire an infrastructure team for managing and maintenance **(4)**.

Before cloud came to the picture, companies had to invest in large datacenters to establish the infrastructure before they can develop any new technologies on top of this. The downside of creating and maintaining large datacenters, is the fact that the company has to manage, prepare for disaster and monitor its assets. This would require a huge budget operating at different layers and would not ensure if the system would always operate at 100% up-time. Cloud technology allows any business to grow with ease. It is not only efficient for business but the technology itself, intelligently, utilizes the maximum efficiency of computer performance. The cloud operates its service on top of a minimum built Operational System. This OS Is built with the minimum dependencies to host the image for the service it is providing. It is then scaled up and down to adapt to the needs of the service, making it very power & process efficient. More information to the technical and software efficiency can be found in reading about “Container Technology,” It is truly the pinnacle of virtualization technology.

**Conclusion**

In conclusion, cloud offers us a solution to develop new technologies and it is expanding in the market at an alarming rate. The newly developed cloud solutions, provided by Microsoft, gives us a good model to showcase the effectiveness of this technology. Many companies are continuously benefiting by deploying new services to the cloud and even providing more efficient technology to their business and customers. With this new Innovation to the internet, we will see a potential for growth in many other technical industries, even potentially, creating a new generation of technologies.

**References**

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**(2)** *Airline Uses Tablets, Cloud Services to Offer More Engaging In-Flight Entertainment*. (2015).Alaska Airlines. Retrieved From: [https://customers.microsoft.com/Pages/CustomerStory.aspx?recid=19357 (Links to an external site.)](https://customers.microsoft.com/Pages/CustomerStory.aspx?recid=19357)

**(3)** *3M Speeds Mobile-App Development and Gains Real-Time Insight with Cloud Solution.* (2014). Retrieved From: <https://customers.microsoft.com/en-us/story/3m-speeds-mobile-app-development-and-gains-real-time-i>

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