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Project 5

Case Study #1

When COVID-19 hit, a lot of companies had an easier time adjusting to remote work and collaboration. This wasn't the same case for everyone, specifically Broadcom Inc, an international infrastructure company that was involved with a lot of on-site work. This technology case study focused on helping the company adapt to the pandemic so that they could adequately support and protect their employees.

Because the company is global and big, they knew that it would be difficult to keep track of the health of their employees, especially because they were in so many different countries. Additionally, they realized that they would need to be in compliance with each country's data privacy laws in order to protect each worker's personal information.

To solve their problem, Deloitte and Broadcom collaborated to create a COVID-19 alert and maintenance system that could easily integrate with the system they already had in place. In addition to integrating this cloud technology, they also focused on accessibility. This was demonstrated by allowing employees to use their corporate mobile devices with the technology in addition to creating a new lanyard-worn device that worked with their new system so that in cases where workers or visitors would have to be in clean rooms, they would still be covered.

The main element of their cloud-based solution was that employees could get real-time access to alerts. In addition to this real-time access, it also allows for flexibility between locations since all of the data is stored in one "place," meaning that employees who work between two worksites could still get notifications of any potential COVID exposures from their previous place that they worked.

The main product to solve their issue was creating their COVID-19 alert system on Amazon Web Services cloud technology. This real-time cloud service allowed for users to receive any alerts about potential exposures to other employees who have reported symptoms or positive COVID cases.

Overall, the use of cloud computing for COVID exposure notification was a smart idea. Not only is it easy for employees to use, but it is an efficient way of both gathering and sending out appropriate data within the context of their situation. Other and future companies should look to this case study if they are interested in implementing a similar system within their workplaces.

Case Study #2

The city of Cascais attracts millions of tourist annually which consequently put stress on the city's resources. To add, Cascais had a poor IT infrastructure in place so it was already difficult to manage the magnitude of their city's tourism. This public sector case study investigates the city's solution in dealing with their situation which led them to develop a 'Smart City,' allowing them to develop a "digital ecosystem" where the city's operations could send and receive data efficiently and fluidly to handle the amount of people traffic their city was experiencing.

Deloitte and city officials collaborated to create a “Digital Command Center” which would both provide a place to centralize the city’s data as well as serve as a place of operations to manage all incoming and outgoing data throughout city departments and the public. To connect with the people, the city create a mobile app that would allow citizens and tourists to have access to updates about the city’s services as well as provide a place for them to report problems and upload pictures. Their Smart City framework also collected data from objects such as stoplights. With this information, they could analyze it to make better-informed decisions about their services and how to improve their infrastructure.

Their cloud-based solution included elements such as network scalability (i.e., Cascai becoming a Smart City allowed for more connections between technological objects), sensor technology that tracked how full recycling bins were, and with all of the data integration, city officials were provided with a way to improve traffic logistics.

The article did not name a specific cloud computing provider but the whole solution was surrounded around the idea of building a ‘Smart City’ and developing a framework for that.

I found this to be an interesting outcome as it feels similar to the Internet of things but on a much larger level. I think it’s really cool that the city was able to use all of this data to actually produce positive results that improved things for both the public and the city’s operations, but I also wonder with all of this data collection if they could be collecting too much data on the people as

well. Despite that, it seems like it would be an interesting city to visit but that would have to be saved for a time post-pandemic.