SECP 1513 - Sec 07
TECHNOLOGY AND INFORMATION SYSTEM

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Cloud Computing Service Provider, Industry Talk 3 and Industry Talk 4

GROUP 6

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CLOUD COMPUTING

Official newsletter from Group 6 SECP1513-07

CLOUD COMPUTING SERVICE PROVIDERS

There are several examples of cloud computing service providers, such as Microsoft Azure, Google Cloud, Alibaba Cloud, IBM Cloud and Tencent Cloud.

The first one is Microsoft Azure. Microsoft Azure offers a wide range of services geared toward businesses. The company delivers a lot of new services, products and updates from time to time, the result of years of research and development. Among other cloud vendors, Azure is arguably the best in the hybrid cloud, allowing users to be rapidly supplied with computer resources on demand.

Next will be Google Cloud. Right now, Google Cloud which was launched on 7 April 2008, is one of the most popular cloud computing service providers in the entire world. In the previous year, Google Cloud has significantly extended its multi-cloud and hybrid workloads with Antos, which allows users to manage workloads across Google, AWS, and Azure. Furthermore, a Google-owned cloud mobile Backend-as-a-Service (BaaS) platform called Firebase, is extensively used by developers and expanded really fast.

After that, Alibaba Cloud is also one of the most popular cloud service providers in the entire world. Alibaba Cloud has monopolized China's cloud infrastructure market in recent years, with its market share growing worldwide with everything from storage, security, big data analytics and others. According to Liao (2021), as of 2021, Alibaba was one of the largest public cloud companies that provide services with about 9% market share in the global IaaS Public Cloud Service Market.

The fourth example of a cloud computing service provider is IBM Cloud who launched in 2011. IBM is not directly competing with major cloud service providers but is focusing on the Red Hat company. According to Stashko (2021), Red Hat is acquired by IBM in 2019, and it provides open source products for businesses, to offer hybrid cloud services. With the possession of Red Hat, IBM Cloud provides a technology base that covers portability and security across multiple clouds, allowing IBM to extend its capabilities and resources.

Lastly, the example of a cloud computing service provider is Tencent Cloud. Tencent Cloud is the second largest cloud service in China, and also the closest competitor to Alibaba's cloud in the country. Tencent Cloud reports that it will hire more than 3,000 people in the cloud sector in 2020 and currently have more than one million servers.

COMPARISON

According to Stashko (2021), Microsoft Azure's market share (20%) is the highest compared to Google, Alibaba, IBM and Tencent Cloud. Microsoft Azure's revenue. In Second Quarter of 2021 (Q2), Microsoft Azure's sales increased by 50%, resulting in earnings of $17 billion for the corporation.

Next, for the cost. Each cloud providers offer different price for different packages. Alibaba Cloud packages generally is cheaper than other five cloud computing service providers. After that, in term of global availability, Azure offers a lot more data center compared to the five other cloud providers, with more than 130 centers around the world.

REFLECTION

Cloud computing service providers give a major boost for efficiency in almost every working field. As we know, backing up data has always been a complex and time-consuming operation, but with cloud computing service providers, you can now automatically dispatch data to any location. On the other hand, it is cost-effectiveness when there is a disaster recovery (DR) solution that provides faster recovery from a different places or locations at a lower cost.

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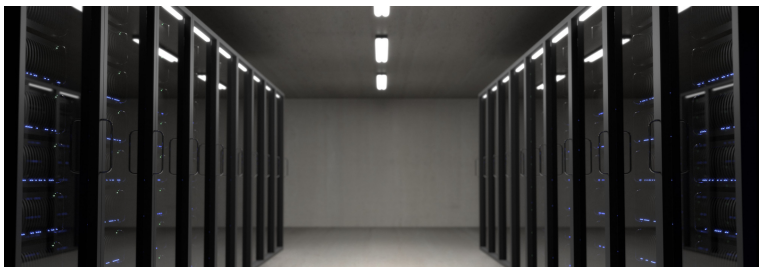
AMAZON WEB SERVICES

3rd TIS Industry Lecture Series
Dr Qusay Al Maatuok

Summary of the Talk

In this talk, Dr. Qusay talked about cloud computing (Cloud computing is the on-demand delivery of computer power, database, storage, applications. And other IT resources via the internet) and how it is the future of IT and a comparison between traditional computing and cloud computing. He talked about different cloud services models and deployment methods, he also talked about the advantages of cloud computing and AWS. At the end of the talk, he showed us how to buy your own server on the AWS website that provides more than a hundred services in different categories.



Issues Discussed

Traditional computing had a hardware infrastructure that required space, staff, physical security, planning, capital expenditure, and provision to the capacity that's why cloud computing is better since it has a software infrastructure that is flexible doesn't require long-term approval, and costs less money. You can have all your resources on the cloud, or if you have sensitive information like how some governments don't allow some data on the cloud, they store it on-premises (private clouds). If you're not sure between cloud computing and on-premises you can have a hybrid model.

AWS (Amazon Web Services)

A web service is a piece of software that makes itself available over the internet and uses a standardized format such as XML or JSON for the request and response of an API. AWS tries to give solutions to the traditional IT problems by giving virtual routers, security groups, and virtual servers instead of firewalls and on-premises servers, it also provides virtual storage and database. AWS services have many categories that require users to provide configurations and solutions to the various services.

AWS pricing calculator estimates monthly costs, identifies opportunities to reduce monthly costs, and models your solutions before building them. AWS offers four support plans which are basic support (discussion forums), developer support (support of early development on AWS), business support (customers that run production workloads), and enterprise support (customers that run business and mission-critical loads). Amazon's response time to your problems depends on how serious it is and your support plan.

Reflection

From the industrial talk, we learned that cloud computing such as AWS enables us to think and use our infrastructure as software delivered to us, rather than traditional hardware infrastructure. AWS also gives us the customization to handle service efficiently. As an example, AWS has significantly reduced the user and developer's workload by using the service provided by Amazon. AWS is flexible, has a secure cloud platform, requires no space and provision. This shows that AWS is so beneficial and can do so much as a cloud service provider. This motivates us to learn a lot more about AWS. We are also motivated and excited to enroll in AWS Academy Cloud Foundation after watching the industrial talk. We are convinced that AWS Academy Cloud Foundation will help us a lot, to gain a better and deeper understanding of how AWS works. In conclusion, cloud computing service provider like AWS is the utility and future of our life that will increase efficiency, especially for company and developers.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NOVEMBER 25, 2021

TRENDS OF AUGMENTED REALITY

OFFICIAL NEWSLETTER FROM GROUP 6 SECP1513-07

Talk by Dr Ruzimi Mohamed

Summary of The Talk

AR is one of the most popular technical trends right now, and as AR-capable smartphones and other devices become more widely available, it will only grow in popularity. It is a technologically augmented depiction of the real physical world that is made possible by the use of digital visual components, music, or other sensory stimulation. By employing the computer's vision to interpret the surrounding physical environment, AR merges the real and virtual worlds. It uses cameras to detect and capture items in real-time, allowing for real-time interaction. The items are further classified, and precise 3D registration of virtual and actual things is carried out. An example of our local AR apps is 'ISKANDAR' which is developed by Dr. Ruzimi Mohamed (founder of OZEL SDN BHD).

Issues Discussed

Dr. Ruzimi stated during the presentation that one of the challenges with Augmented Reality (AR) in Malaysia is internet connectivity. This is due to the fact that loading the AR 3D models requires a large amount of data which is also the reason why augmented reality cannot be used in cloud computing. Another concern is the expensive cost of developing AR technology. Creating AR with hardware and software is one thing, but creating 3D models for AR is another. The higher the quality, the more expensive it will be. Lastly, poor occlusion is one of the issues that make it difficult to sustain a high level of performance in AR. He also stated that focus on occupations that involve abilities such as creativity, problem-solving, and interacting with others on a human level. Consider a job that a robot is yet unable to perform adequately.

Reflection

From the talk, we learned that Augmented Reality (AR) will generate more and more users and revenue in a scalar of a billion. This is because nowadays for example Instagram users have increased day by day. Instagram uses mobile augmented reality like an animal filter. AR also can enable students to learn about their subject in more detail. Students can learn about the skeleton of the human body in 3D. For our future jobs, the most important skills that we need to master are complex problem solving, critical thinking, and creativity. This is how we can get a job related to augmented reality other than master in computer science. Other than that, we shall also see an improvement in our life in the future as AR technology advances, whether it is in education, shopping, medical services, or even when playing video games. With the advancement of augmented reality, we will be able to perform almost everything online which can save time and increase efficiency. It can also, for example, assist medical students in practising a surgical operation with low risk. It can also assist us in determining the size of our furniture so that it will fit exactly in our home. In a nutshell, our country must be ready to adapt to technological developments in order to benefit the public.


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