



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**SECP1513-07 TEKNOLOGI DAN SISTEM
MAKLUMAT**

ASSIGNMENT 02

**(Newsletter on Cloud Computing Service Provider, 3rd &
4th Industrial Talk)**

Lecturer's Name: Mr. Hairudin Bin Abdul Majid

Group Leader Contact Number: +6011-11468854

Group Members	 LIM SHI KAI **Group Leader	 CHIH ZHEN EN	 TIA SIAW XUEN	 CHUA XIN LIN	 MA ZE JUN
Matric Number	A21EC0196	A21EC0167	A21EC0233	A21EC0020	A21EC4009

CLOUD COMPUTING SERVICE PROVIDER

20 NOVEMBER 2021

"Cloud is about how you do computing, not where you do computing." –Paul Maritz, VMware CEO

GOOGLE CLOUD PLATFORM

Google Cloud Platform (GCP) provides public clouds. Customers may utilise Google's global data centres' computing resources.

From GCP cost management to data management to providing web and video via the web to AI and machine learning capabilities, GCP has you covered.

Google Cloud is a set of online services designed to help businesses become digital. Other Google Cloud services include:

- Google Workspace: Provides identity management, Gmail, and collaboration capabilities for enterprises.
- Enterprise Android or Chrome OS: To access web-based apps.
- APIs for machine learning and enterprise mapping services : Enable inter-software communication.

MICROSOFT AZURE

Microsoft's cloud service provider. In order to deploy applications and services on Microsoft-managed data centre infrastructure, Azure offers SaaS, PaaS, and Infrastructure as a Service options.

Azure includes over a hundred services to help you swiftly address problems. They can iterate fast and deliver code utilising an end-to-end cloud development platform with built-in Development Operations (DevOps) capabilities.

Azure also supports private, public, and hybrid clouds. Backup and Disaster Recovery are all included in Azure's sophisticated InfoSec offerings (DR).

If you use Visual Studio Code to build, Microsoft Azure supports Node.js, Java,.NET, and more.

COMPARISON AMONG THE PROVIDER

PRODUCT / SERVICE

Each service provider offers a unique set of goods and services to customers all over the globe, but what is the difference between the offerings? What are some of the items that are well-known in the consumer region?

The most well-known services provided by Huawei Cloud are elastic computing clouds. Users may utilise computational storage and network resources on the servers at any time, which allows them to create a more comfortable and dependable application environment for their applications.

On the other hand, Tencent Cloud employs its cloud service for the most popular communication applications in China, WeChat and QQ. Tencent had employed Network Security to safeguard the privacy of its users in the communication zone, and it had stored the information using the Cloud File Storage service.

Consequently, Alibaba Cloud also offers Cloud Computing services, the most notable of which is the Elastic Compute Service (ECS), which delivers fast memory and the newest Intel CPUs to power cloud applications and generate quicker results while maintaining low latency. [7]

Following that, Microsoft Azure delivers a wide range of goods for users, ranging from mobile to artificial intelligence. The fact that the majority of consumers are using Microsoft Azure is due to the development. Microsoft Azure enables developers to exchange code, test apps, and monitor any problems all in one place. While Azure supports various application programming languages such as JavaScript, Python.NET, and Node.js, it does not enable server-side scripting. [1]

Finally, Google Cloud Platform offers translation services to the vast majority of its customers. Translation AI is the name of this service, and it is capable of auto-detection of more than a hundred languages, ranging from Afrikaans to Zulu, utilising machine translation. Additionally, Google Cloud Platform customises its translation services to grasp business lingo or domain-specific phrases to keep the context and meaning of technical papers, product descriptions, and social media material intact and consistent. [3]

PRICING

Let's overview the price for these five providers in the same products :

- 1.Cloud Storage, which the server in Singapore then the plan charge as monthly. The size of the storage is about 1TB.
- Tencent Cloud charge 22.528 USD
 - Huawei Cloud charge 21.45 USD [5]
 - Alibaba Cloud charge 195.78 USD
 - Google Cloud Platform charge 20.48 USD (include 1TB for data moves within the same location) [4]
 - Microsoft Azure charge 61.47 USD (Include 10k operations for write, list, read transactions and all other operation but exclude the delete [6])

Based on the pricing list above, the most expensive service provider is Alibaba Cloud, while the cheapest is Huawei Cloud.

RATING

The Gartner Comparison website [2] assigns each provider a unique rating. Huawei Cloud has the highest rating of these five services, with 4.9 stars based on 16 reviews. The majority of consumers love their cloud monitoring system, which assists in monitoring resource use and uses dynamic resource scheduling to guarantee servers are loaded equally.

Alibaba Cloud is rated the lowest (4.6 stars from 77 reviews). Alibaba Cloud gets a bad grade due to its inaccessible setup process. Users are unable to reach the Alibaba Team promptly owing to the helpline's primary location in China.

The remaining three providers are rated in the middle. The majority of consumers like their dependable server, which enables them to transfer data easily. In contrast, Tencent Cloud is popular due to its comprehensive solution tailored to the particular issues encountered by enterprises.



REFERENCE

- 1.Bigelow, S. J. (2020, April 6). What is Microsoft Azure and how does it work? SearchCloudComputing. <https://searchcloudcomputing.techtarget.com/definition/Windows-Azure>
- 2.Gartner. (n.d.). Alibaba cloud - International vs Microsoft Azure vs Google cloud platform vs Huawei cloud - China vs Tencent cloud - China. <https://www.gartner.com/reviews/market/public-cloud-iaas/compare/product/alibaba-cloud-international-vs-azure-vs-google-cloud-platform-vs-huawei-cloud-china-vs-tencent-cloud-china>
- 3.Google Cloud Platform. (2019, September 30). Translation. Google Cloud. <https://cloud.google.com/translate>
- 4.Google Cloud Platform. (n.d.). Google cloud pricing calculator. Google Cloud. <https://cloud.google.com/products/calculator/>
- 5.Huawei Cloud. (n.d.). Price calculator -HUAWEI CLOUD. <https://www.huaweicloud.com/intl/en-us/pricing/#/ecs>
- 6.Microsoft Azure. (n.d.). Pricing calculator. Cloud Computing Services | Microsoft Azure. <https://azure.microsoft.com/en-us/pricing/calculator/>
- 7.Wikipedia. (2016, July 18). Alibaba Cloud. Wikipedia, the free encyclopedia. Retrieved November 26, 2021, from https://en.wikipedia.org/w/index.php?title=Alibaba_Cloud&oldid=1056375625

ALIBABA CLOUD

Alibaba Cloud is a subsidiary of Alibaba Group. It is a cloud computing firm. Alibaba Cloud is a cloud computing company that offers cloud computing services to online companies and Alibaba's own e-commerce ecosystem.

Additionally, Alibaba Cloud provides pay-as-you-go cloud services such as elastic compute, data storage, relational databases, big data processing, anti-DDoS security, and content delivery networks (CDN)

HUAWEI CLOUD

Huawei Cloud is a cloud computing company that focuses on the technological research and ecological development of public clouds. It is devoted to offering customers with a one-stop shop for cloud computing infrastructure services.

Additionally, Huawei offers cloud computing services to businesses of all sizes, whether public or private. Additionally, they supply consumers with computational IT infrastructure services.

Huawei cloud also incorporates various security capabilities, such as database security and web security, to guarantee that users may use their services securely.

TENCENT CLOUD

Tencent Cloud is a prominent worldwide cloud provider focused on assisting global organizations in China. Tencent Cloud is a sophisticated and resilient cloud service developed to solve the particular issues encountered by companies expanding into China.

Cloud by Tencent is part of a thriving digital ecosystem that includes some of China's most popular video and music streaming services. Tencent is the biggest technology business in Asia, with over a billion users.

Faster market entry in China with less complexity and more confidence with the best China native cloud solution.

DESIGN & PRODUCE BY:

Group 4
Group Leader: LIM SHI KAI A21EC0196
Group Member:

- CHIH ZHEN EN A21EC0167
- MA ZE JUN A21EC4009
- CHUA XIN LIN A21EC0020
- TIA SIAW XUEN A21EC0233

AMAZON WEB SERVICES CLOUD COMPUTING

TECHNOLOGY AND INFORMATION SYSTEM GROUP 4



CLOUD COMPUTING

BY CHIH ZHEN EN

The world is moving at a quick pace in the direction of advancing technology. Internet and online became the new trend to connect people and data at anywhere and anytime. As a result, this trend led us to a new computing technology widely known as Cloud Computing. Like its name, cloud computing in the simplest term means storing and accessing programs and data on the Internet instead of your own

memory storage devices. Massive data processing is happening all over the world at every second, the hardware and software required to support this vast amount of computation is simply unimaginable, and this is where cloud computing comes in. Amazon Web Services (AWS) serves as one of the top-rated cloud computing service providers in the world. To put it simple, it is the delivery of computing services, not only limited to data storage, but also databases, servers, networking etc. with the sole purpose for faster and efficient innovation.

INDUSTRY TALK 3

SPEAKER:
DR. QUSAY AL-MAATOUK
(LECTURE OF ASIA
PACIFIC UNIVERSITY
(APU))

MODERATOR:
DR. LAYLA RASHEED
ABDALLAH HASAN
(LECTURE OF
UNIVERSITY
TEKNOLOGY MALAYSIA
(UTM))

AWS CLOUD COMPUTING

BY CHIH ZHEN EN

Cloud computing is the on-demand delivery of IT services over the Internet. Instead of owning physical servers and data centres, cloud computing which comprise of almost all IT services, offers the as-needed basis for every customer. It is like the daily utilities such as electricity and water, you pay only for what you need, but

in the form of online service. As hardware, cloud computing saves the requirement of space, staffs, and even capital expenditure because the service is implemented online with full features. As software, it is more flexible because it can change more quickly and easily at the same time eliminating heavy-lifting tasks. As compared with traditional IT, cloud computing service has multiple significant benefits. In terms of costs, it saves the need to spend tons of money on high specifications of infrastructures such as high-speed network and big memory storage. In terms of privacy and security, it provides the feature of on-premises cloud with full encrypted privacy storage of customer with firewalls. Other than that, it also has high speed with full coverage of the globe for users of different regions.



Amazon Web Services. (2021). Retrieved November 25, 2021, from Brainvire.com website: <https://www.brainvire.com/wp/wp-content/uploads/2020/08/AWS.png>

Three cloud service models:

- Infrastructure as a service (IaaS)

It is the most basic type of cloud computing services. Rental of IT infrastructures such as servers, storages, networks etc to customers on a pay-as-you-go basis.

- Platform as a service (PaaS)

This service provides the environment for the development and management of software applications. Developers have full access to the required servers, storage, databases etc for their work.

- Software as a service (SaaS)

It is a service of providing hosted software applications over internet, usually on a subscription basis. Software updates, maintenance and security firewall are included in the service.

REFLECTION FROM THE TALK



Cloud Computing Services. (2021). Retrieved November 25, 2021, from Inexture.com website: <https://www.inexture.com/wp-content/uploads/2020/04/Cloud-Computing-Services-hero-image-1024x709.png>

Cloud computing has fully blend into our current technology life. Instead of thinking it like an industrial technology, it is more like a way of business dealing with IT resources. Even without outstanding specifications, cloud computing services allow people to gain access to those readily available services with reasonable price. Without our notice, all of us received positive impact from cloud computing.

For individual consumers like us, examples of cloud computing in our daily live include Google Drive, Apple iCloud and Dropbox, these implementations play an important role in our computer tasks such as information storage and online collaboration. The three cloud service models serve to help users with specific needs and

requirement. Organizations like Netflix uses cloud computing as well for their daily networking data processing. It is undeniable that these IT services is much needed and is in high demand, the world needs more IT related talents and skills. As Z generation, we ought to master and grasp these skills, the future technology of this world is in our hands.

GROUP 4

LIM SHI KAI A21EC0196
MA ZE JUN A21EC4009
CHIH ZHEN EN A21EC0167
TIA SIAW XUEN A21EC0233
CHUA XIN LIN A21EC0020

REFERENCE:

- 1) Azure.microsoft.com. 2021. What Is Cloud Computing? A Beginner's Guide | Microsoft Azure. <<https://azure.microsoft.com/en-us/overview/what-is-cloud-computing/>>
- 2) Amazon Web Services, Inc. 2021. What is Cloud Computing. <<https://aws.amazon.com/what-is-cloud-computing/>>

CURRENT TRENDS OF AUGMENTED REALITY IN INDUSTRY

Technology & Information System - 07 Group 4



ZAPP2PHOTO/SHUTTERSTOCK.COM

Industry Talk 4

Date:

18th Nov 2021

Time:

9.00a.m.~10.30a.m.

Speaker:

Dr. Ruzimi Mohamed
(OZEL Sdn. Bhd.)

Moderator:

Ts.Dr Sarina Binti
Sulaiman, TIS
lecturer

Augmented Reality

By Chih Zhen En

Today, the 4th Industrial Revolution is making its way into our life by all aspects including economics, technology, manufacturing etc. With the growing utilization of new technologies, there are currently 9 pillars of digital industrial technologies. Augmented reality, widely known as AR is one of it and is one of highly discussed hot topics. Augmented reality, in short is the evolved version of the real existing physical world. Instead of stepping into a virtual reality, AR is the advanced technology that can truly affect us from our senses. The implementation of it includes digital visual elements such as vision and other sensory stimuli, the overlaying between AR technologies and the real world is sure to bring up new sparks to all the users.

Issues discussed in the talk

The future of Augmented Reality is a highly expected scenery and is hoped to spur and drive the World economics. With impacts from AR, the expected revenue by industries by the year 2025 is at high hopes. For instance, the expected revenue in the video games industry has reached 11.6 billion dollars due to the high number of gamers all over the world. The following industries with high expectations of revenue include healthcare, engineering, live events etc.

According to research and statistics, there are already 3.5 billion users projected in mobile augmented reality, reaching revenue of 15 billion dollars. This shows that the world is showing positive supports for the implementation of current augmented reality technologies.



CLAASSEN, R., 2018. AR AND VR IN MANUFACTURING: BEING THERE. [IMAGE] AVAILABLE AT: <[HTTPS://WWW.SMART-INDUSTRY.NET/AR-AND-VR-IN-MANUFACTURING-BEING-THERE/](https://www.smart-industry.net/ar-and-vr-in-manufacturing-being-there/)> [ACCESSED 31 JANUARY 2018].



Reflection from This Talk

AR technology is one of the technologies that may bring great impact to our daily lives if successfully implemented. Its enhancement of experience and convenience of use is undoubtedly an innovation that can ease our life. The metaverse which is closely related to augmented reality is able to merge virtual life with real life, granting us the capability of doing almost anything we can imagine. A real-life example would be the mobile application Pokémon Go since 2016, which grants inescapable sensation to the players and is still a hot topic until now. The camera filters with cartoon or makeup features are also extensions of AR technology. Its impact is so huge and is sure to bring positive impacts to multiple fields such as online shopping, mapping and navigation, entertainment and even education. A complete link between real and virtual realms is speculated and this result of superimposing information such as sound, images and text onto our real world is a future we can foresee.



GROUP 4

LIM SHI KAI A21EC0196
CHIH ZHEN EN A21EC0167
MA ZE JUN A21EC4009
CHUA XIN LIN A21EC0020
TIA SIAW XUEN A21EC0233

•Marker based AR

This type of AR is also referred as recognition-based AR or image recognition. It relies on identification of a marker or user-defined images to function. From cameras, the markers such as distinct patterns are recognized and processed. It usually requires a software or application for the scanning process, then triggers an augmented experience that appear on the device

•Projection based AR

This type of AR is also known as spatial AR. It is a method of delivering visual data by projecting images on the surface of 3D objects or space. This AR projection is not limited to any device because it is integrated directly onto the environment within a specified area. The interaction allows user to touch the surface physically, showing related information.

•Superimposition based AR

This type of AR is the most widely recognised technology among users. It involves partially or entirely the object view by replacing it with an augmented view. The feature requires an object recognition because this AR cannot function without identification of the original object. Camera lenses or social media filters are implemented using this type of AR technology.

References

- 1) INVESTOPEDIA. 2021. AUGMENTED REALITY DEFINITION. [<[HTTPS://WWW.INVESTOPEDIA.COM/TERMS/A/AUGMENTED-REALITY.ASP](https://www.investopedia.com/terms/a/augmented-reality.asp)>]
- 2) DIGITAL PROMISE. 2021. TYPES OF AR - DIGITAL PROMISE. [<[HTTPS://DIGITALPROMISE.ORG/INITIATIVE/360-STORY-LAB/360-PRODUCTION-GUIDE/INVESTIGATE/AUGMENTED-REALITY/GETTING-STARTED-WITH-AR/TYPES-OF-AR/](https://digitalpromise.org/initiative/360-story-lab/360-production-guide/investigate/augmented-reality/getting-started-with-ar/types-of-ar/)>]
- 3) INVESTOPEDIA. 2021. AUGMENTED REALITY DEFINITION. [<[HTTPS://WWW.INVESTOPEDIA.COM/TERMS/A/AUGMENTED-REALITY.ASP](https://www.investopedia.com/terms/a/augmented-reality.asp)>]