THE UNIVERSITY OF SYDNEY

School of Information Technologies
Faculty of Engineering & IT

ASSIGNMENT/PROJECT COVERSHEET - GROUP ASSESSMENT

Unit of Study: INFO5991 Service Science Management and Engineering

Assignment name: Combined group summary of article review 2a

Tutorial time: Thursday 19:00-21:00 **Tutor name:** Claudio Diaz

DECLARATION

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We realise that we may be asked to identify those portions of the work contributed by each of us and required to demonstrate our individual knowledge of the relevant material by answering oral questions or by undertaking supplementary work, either written or in the laboratory, in order to arrive at the final assessment mark.

Project team members				
Student name	**Student ID**	**Participated**	**Agree to share**	**Signature**
1. Qiuqi Cao	450186109	Yes / No ✓	Yes/No ✓	Qiuqi Cao
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3. Dasheng Ge	460440743	Yes / No ✓	Yes / No ✓	Dasheng Ge
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5. Lida Guo	460269052	Yes / No ✓	Yes / No ✓	Lida Guo
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Group Article Review 2

INFO5991 Service Science Management and Engineering

"What CIOs Need to Know and Do to Exploit Cloud Computing"

RED SUN

Contents

1 Structure

The article consists of four sections, including overview, introduction, analysis and recommendations in each part of the analysis. It provides a clear vision of how this research paper is constructed.

Firstly, the overview section gives brief, but very comprehensive challenges and recommendations regarding cloud computing services to convince the audience (CIOs) to know more about the significance of understanding where and how to exploit cloud services and developing a cloud strategy for enterprises. Taking the best advantage of cloud computing services can increase an enterprise's agility and productivity.

Then followed by the overview, the author describes the importance of exploiting cloud computing, and cloud computing will become the dominant design style for future applications in introduction section. The value from on-premises data centers as well as existing legacy systems are being migrated to public cloud services. Public cloud infrastructure as a service (IaaS) and platform as a service (PaaS) make applications closer to customers and can reduce a large amount of capital cost, offloading sophisticated and expensive applications to software as a service (SaaS) can concentrate limited or constrained IT skills on more differentiated services and capabilities. Developing new application in public cloud services can also prevent an enterprise from losing capital investment, especially if it is experimental or has unspecified demand or an unknown knowledge of success. It is predicted that the growth of public cloud spending will be rapidly higher, at an average compound annual growth rate (CAGR) of 15.8% through 2020 (Sid Nag, 2016).

The body of this article is the analysis section, which is a detailed guidance on the development of a cloud strategy and how to maximize the benefits of cloud computing for an enterprise and is well structured by explaining the challenges mentioned early in the overview and introduction, using external sources to help illustrate author's arguments step-by-step. Additionally, the author gives relevant recommendations in each part of the analysis section. For example, regarding the part "*Justify Your Cloud Strategy and Investments Based on Your Digital Business Strategy*", the author uses three external sources that are "Unlock Digital Business Value Through the Economics of Connections", "Building a Digital Business Technology Platform", "The API Economy: Turning Your Business Into a Platform (or Your Platform Into a Business)" to demonstrate her arguments on cloud computing provides speed and agility through the use of cloud services which allows cloud consumers "*help themselves*" to the services without requesting specific access, which in turn spurs creativity and innovation, and cloud computing.

In the last section, the author made some recommendations to the audiences which will be beneficial to the readers gaining more strategy and knowledge on cloud computing.

2 Nature of the article

2.1 Relevance

This paper clearly states that deploying cloud style of computing for new applications as well as migrating legacy systems to an optimized cloud computing system which is so

important because it can provide agility, speed and increased productivity for an enterprise. An appropriate cloud strategy is one of the most essential part of an enterprise's competitiveness. The article provides a clear guidance regarding how to develop a cloud strategy and what should CIOs do to leverage the power of the cloud computing as a service. This source does provide the relevant information and detailed recommendations regarding this topic.

2.2 Expertise

The author Donna Scott is a Vice President and Distinguished Analyst of the Gartner's office of the CIO research. She has been working in Gartner for 23 years and she also has over 26 years of industry experience. Donna is an expert in IT operation area.

2.3 Viewpoint

Cloud computing will be the dominant design style for new applications and for refactoring a large number of existing applications in the next decades. CIOs need to fully understand and take the best advantage of cloud computing as services by developing cloud strategy which can lead the enterprise to achieve increased productivity, agility, speed and likely reduced cost if well-designed and executed.

2.4 Intended audience

This article is suitable for companies leaders in business world, e.g. CIO, CEO, CTO rather than academic community. Because this article stated a lot of challenges in real industries and gave some recommendations to CIOs according to the real industries issues.

2.5 Evidence

In this article, the author uses a lot referenced resources, including scholarly sources as well as statistical data and graphs as evidence to demonstrate her arguments, and to propose recommendations. All references are retrieved from the publication company of this paper, Gartner, Inc..

2.6 When published

This article was published in 2017, which is very fresh in this domain.

3 Evidence used in the article

This article cited a lot of statistical and scholarly sources to help construct the article and support her arguments. For example, two references were regarding the growth of public cloud spending will be rapidly higher with at an average compound annual growth rate (CAGR) of 15.8% through 2020 (Sid Nag E.A., 2016) and the development of new applications and migration of legacy systems (John-David L., 2016).

On page 2, the author's argument is supported by a scholarly resource that "nearly all enterprises will exploit public, private and hybrid cloud computing, especially for their digital business needs" (Benoit J. L., 2012).

To explain the fact that Many CIOs lack a decision framework to prioritize legacy applications movement to an optimized cloud style of computing, on page 3, the result of Gartner's most recent 3Q15 cloud survey with 6,723 responses from organizations with more than 100 employees in 10 countries is used. Statistical data are highlighted on a pie chart, showing the results that 58% of the responses indicates their enterprises are using or planned to use Cloud Services by Year-End 2015(E. A. Sid Nag, 2016a), and the rest of 42% hadn't used or planned to use any form of cloud services by year-end 2015 (Sid Nag E. A., 2016b).

The author stated that enterprise architectures and standards of cloud-based applications are required and necessary for an enterprise to get the maximum reuse with optimized delivery cost in order to achieve the increased agility promised by cloud services on page 4 (Mike J. W., 2016).

In order to explain and demonstrate the author's viewpoints regarding to when refactoring applications transformed to SaaS (software as a service), two scholarly sources are cited as evidence that "it is critical that they be done with the new architectural standards so they receive the benefits of increased speed (of change, composability, and so on) and lower cost of operation as well" (Anne T., 2017). Network architectures may require changes when refactoring legacy applies to networking (Gill B., 2015).

4 Is it persuasive?

First of all, we think the author's argumentation is persuasive in this article, because the author used plenty of evidence, such as data and real industry examples, to support his or her argument that cloud computing will optimize enterprise's workflow and operations and becomes the foundation of digital business initiatives. Moreover, although the author pointed out that enterprise should address cloud strategy and cloud computing which can provide various benefits like greater speed, lower cost and more agile, the author recommended CIO to wisely use cloud service and avoid lock-in.

After reading this article, there are several recommendations that the author provides to the CIOs are useful, for example, to combine cloud computing technology with company's business activities in order to build more agile business model. Furthermore, CIOs should carefully uses cloud service and avoids lock-in public service when there is not a defined public cloud standard.

5 Relevance

This article is much related with the Newtown Bank case, because it provides plenty of evidence why enterprise should address cloud computing as part of their business strategy and the what benefits those enterprises will gain. One of Newtown Bank's problem is that the legacy applications are expensive to run and support and difficult to change or enhance. And this article states that cloud computing technology drives greater speed, agile and innovation through the democratization of IT. Moreover, cloud computing can help company to lower the cost of building and operating cloud-based

applications. Therefore, this paper is useful and helpful on conducting our consultant report.

6 Conclusion

In conclusion, this article introduced the background and situation of the cloud computing and claimed the importance of cloud strategy for an enterprise to increase agility, productivity and innovation. After analyzing the status and challenges, offered several guidance and recommendations of cloud strategy to maximize the benefits of cloud computing.

As part of your cloud strategy, identify the key benefits you seek in using cloud computing. This should include proximity to customers and enabling employees to focus on a higher level of value. As input to your cloud strategy, make sure you experiment thoroughly with public, private and hybrid cloud computing to understand where you can achieve value for different types of workloads. Develop a cloud strategy that identifies where and how you will exploit cloud computing for new applications and for existing legacy applications (which may migrate to SaaS or need to be refactored or replaced).

This article is very related with the issues of IT strategy existing in the Newtown Bank case. The case shows the Newtown Bank needs to develop the cloud computing to solve the problems of cloud service in outsourcing field, which is also important for an enterprise to invest in IT architecture and cloud infrastructure to achieve the agility, innovation and expenditure controlling.

7 Reflection grid

	Joys	Frustration	Learning
Hao Guo	I gained lots of knowledge on cloud computing from this article.	The author gave readers lots of recommended articles but it's so hard to get access to Them because I cannot search it on USYD library and database like google scholar.	Most high-level techniques need to optimize to perform in high compatibility.
Dasheng Ge	I like the ideas that this article presented.	Many links that cannot be accessed.	Although cloud computing has many advantages in business, the leaders still clear about how to use this technique

			based on their own situation.
Xiaojun Dong	The topic of this article is interesting to me, and the article provides detailed explanation regarding cloud computing and its applications as services.	The style of format of this article is not so clear, and the conclusion part is not clearly given.	I have learned a lot of professional knowledge about cloud computing, as well as the trend of applying cloud as a service in different ways, e.g. IaaS, PaaS, SaaS.
Zhiliang Wang	I gained lots of knowledge on cloud computing from this article and I have broader views on new technology.	The author gave readers lots of recommended articles but it's so hard to get access to them because I cannot search it on USYD library database.	Although the new technologies are changing very quickly, not all tools or techniques are in high compatibility without any optimization.
Lida Guo	Great to know the situation about cloud computing.	Some examples do not suit for all the case for different companies.	This article is related with cloud computing which is the source of the Newtown Bank's IT strategy.
Qiuqi Cao	The process to find author's argument and find evidence in this article that author use to prove his argument is quite fun.	This article has 12 pages and I need to spent long time to read it. Also, think it is hard for me to define whether a paper is persuasive or not.	Understanding new knowledge from this article about how cloud computing will generate benefits for the company and what company need to do to fit cloud service.

Appendix A

List of questions raised by group members

How do you make sure all your opinions or points are correctly and suitable for all the companies?

What if the expenditure cost and the time consuming of changing the existing business model is too much?

How to prevent the security problem from external sourcing?

How to make employees pleased with loss of job positions if the company keep outsourcing?

Appendix B

Scholarly sources in this article's reference

Anne T., Aashish G. (2017). Innovation Insight for Microservices. Retrieved from https://www.gartner.com/document/code/275279?ref=grbody&refval=3369117

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