

Assignment – 1
Graduate Student Paper Review

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Note: There were some papers for which I was not able to provide the link hence I have attached all the research papers along with the report as the zip file.

PAPER REVIEWED: STUDY OF CLOUD COMPUTING AND VIRTUALIZATION TECHNOLOGY

What was the research question posed by the paper and what approach did the authors take to answer the question? Finally, what were the key findings of the paper?

The paper proposed the study between cloud computing and virtualization technology. The paper started with the increase in the requirement of the hardware resources for the growing industries and proposed the idea of virtualization and cloud to conquer the issue. The author discussed that both of the technology closely works with the internet technology and they could change the way we think with the induction of networking and virtualization. The paper also included in-depth observations about cloud computing and virtualization with implementing the relationship between both of them. The major finding for the paper was to conclude that if cloud computing and virtualization technology complement each other it could potentially change the way computing is done in today's age. Along with that, they referred the cloud computing as the highest level of virtualization. In the end, the authors empathize more with how cloud and virtualization will help the community and the whole society[5].

In your opinion, what was the most interesting or important thing you learned from the paper? What is it? Why is it interesting or important? How will/can you apply that knowledge in this course or your work?

According to the paper, the most interesting thing is to develop the relationship between cloud computing and virtualization technology. This will come with challenges but the advantages which it offers are too large compared to the work we need to put in. The author gave reference to the VMWare single machine virtualization also and explained that how we could move forward in this direction. I had been working with cloud and Blockchain and was trying to develop a solution hosted on Blockchain which offers cloud services but I got an idea to offer the small virtual systems instead of direct cloud services from this paper. Moving ahead in this course this paper would help to grasp the ideas of virtualization and cloud more easily as there was some basic information regarding both of them. It also gives me a way to think why there was the induction of docker and Kubernetes in industries.

If you were going to write a detailed report on this topic, what is the next paper you would read and why would you read it?

As this paper was empathizing more on the relationship of cloud and virtualization, I would move ahead with several research papers. The major think on which I would work would be security and I found a paper named, "*The Research for Virtualization Network Security on Cloud Computing*"[1] and to know more about the topic I would refer to "*Research on the Virtualization Technology in Cloud Computing Environment*"[2] and "*Virtualization and Cloud Computing*"[3] continuing that to find the challenges which can face I would refer to "*A Study On Virtualization Techniques And Challenges In Cloud Computing*"[4].

REFERENCES

- [1] J. Sun, Y. Zeng, G. Shi, W. Li, and Z. Li, "The Research for Virtualization Network Security on Cloud Computing," *Proceedings of the 2018 2nd International Conference on Artificial Intelligence: Technologies and Applications (ICAITA 2018)*, 2018, DOI: 10.2991/icaita-18.2018.37.
- [2] Ding, Wei Min, Benjamin Ghansah, and Yan Yan Wu. "Research on the Virtualization Technology in Cloud Computing Environment." *International Journal of Engineering Research in Africa* 21 (2015): 191-96. Web.
- [3] Xing Y., Zhan Y. (2012) Virtualization and Cloud Computing. In: Zhang Y. (eds) *Future Wireless Networks and Information Systems. Lecture Notes in Electrical Engineering*, vol 143. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-27323-0_39
- [4] D. M, "A Study On Virtualization Techniques And Challenges In Cloud Computing," 2014 [Online]. Available: <http://www.ijstr.org/final-print/nov2014/A-Study-On-Virtualization-Techniques-And-Challenges-In-Cloud-Computing.pdf>
- [5] Kong, Ling Lai. "Study of Cloud Computing and Virtualization Technology." *Applied Mechanics and Materials* 539 (2014): 407-11. Web.