Assignment – 2
Graduate Student Paper Review
Topics: Deployment & Delivery Models, Mechanisms

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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: AN APPROACH FOR THE SECURE MANAGEMENT OF HYBRID CLOUD–EDGE ENVIRONMENTS

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 research paper revolves around the question of dealing with the security and management of the hybrid cloud edge environments. Another domain in which the paper has information is the C.O.D. paradigm, and the paper highlighted the idea of Cloud Security Alliance. Another valuable approach proposed in the paper is message-oriented middleware. The requirement to manage V.M.s and containers in both the Cloud and Edge layers securely and flexibly became more attractive with introducing the C.O.T. paradigm.

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

The most crucial thing in this paper was how the connection was differentiated between the entries and how the information was presented according to the relationship between the entities. The submitted paper helps to understand how the hybrid cloud works and the vertices in which we could improve the existing cloud infrastructure. Continuing with that, the paper also suggested ways to enhance the security in the system whereas having more emphasis on the speed and the ability to work with the different vertices. The paper also suggested the methods to be implemented alongside this research, whereas this could potentially become the best possible thing to learn alongside the cloud computing course. In this paper, they have given the ways to inherit the hybrid architecture of cloud in organizations and implement transparent systems in large-scale organizations.

This research paper would help us learn more about how we could determine the usage of the hybrid cloud in the day-to-day environment while making security the priority of the whole cloud-based architecture.

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

After reading this paper, I understood how hybrid cloud could become the future of how we all are taking cloud in today's age and time. I would read the following paper, "Hybrid Cloud Storage" by A. Gupta, R. Spillane, W. Wang, M. Austruy, V. Fereydouny, and C. Karamanolis. The following paper in line would be "Hybrid cloud: bridging of private and public cloud computing" by G. Aryotejo, D. Y. Kristiyanto, and Mufadhol. I have also included some parts of these papers in the review as they were relevant to reviewing the topic.

REFERENCES:

[1] A. Gupta, R. Spillane, W. Wang, M. Austruy, V. Fereydouny, and C. Karamanolis, "Hybrid Cloud Storage," *ACM SIGOPS Operating Systems Review*, vol. 51, no. 1, pp. 48–53, Sep. 2017, doi: 10.1145/3139645.3139653.

[2] A. Celesti, M. Fazio, A. Galletta, L. Carnevale, J. Wan, and M. Villari, "An approach for the secure management of hybrid cloud–edge environments," *Future Generation Computer Systems*, vol. 90, pp. 1–19, Jan. 2019, doi: 10.1016/j.future.2018.06.043.

[3] G. Aryotejo, D. Y. Kristiyanto, and Mufadhol, "Hybrid cloud: bridging of private and public cloud computing," *Journal of Physics: Conference Series*, vol. 1025, p. 012091, May 2018, doi: 10.1088/1742-6596/1025/1/012091.