Performance Analysis of Virtual Learning System: A Case Study of ANGKASA

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***Abstract*— Virtual e-learning system is a learning activity using electronic media such as computers and the internet as main tool. ANGKASA is a provider platform of e-learning system using cloud computing technology. E-learning system provides many benefits such as flexibility and efficiency for learning activity. However, there are some disadvantages of the usage of e-learning system, i.e., there are still many institutions especially educational institutions that still implementing conventional-based of e-learning system which considered ineffective both in terms of cost and time for infrastructure. These disadvantages can be resolved by using cloud computing system. In this study, we are implementing cloud computing system using virtualization technology. There are two methods of virtualization used in this study, full virtualization or VM and container virtualization. In this study, we are comparing the performance of these two methods of virtualization using Apache Benchmarking tool. The study shows that the container virtualization method is better than the VM virtualization method in terms of serving requests for virtual e-learning system.**

***Keyword*— Performance Analysis, E-Learning System, Apache Benchmarking, Virtualization**

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