ABSTRACT

Quality service is determined by how a service can still have good performance or is able to continue to work optimally even though there is a change, such as a change in location or the device used by the service. However, sometimes the process of moving a service causes a decrease in Quality of Service (QoS), one of the reasons is the complexity of the service environment. Containers are applications that can simplify this complexity by virtualizing a simpler machine based on what the service need only.

In this research, a comparison will be made of the use of Linux Container (LXC) and Docker Container in the service migration process in the form of live streaming Real-Time Message Protocol (RTMP) and a MySQL database, where the performance of the two containers is assessed from the aspects of application downtime and QoS (Throughput, Delay, Jitter and Packet Loss.) then CPU usage and Memory usage. This comparison is done to determine which container is more effective for use in the service migration process.

The results of this research indicate that the use of the two containers is able to maintain service conditions judged by the QoS results which can be categorized as good, with each container having a QoS Throughput, delay, and packet loss index of 4, then the jitter for both containers is 3. Then for CPU usage and Memory usage of each container is not much different from Docker having much lighter resources.

However, in terms of downtime, the docker container has better performance, where the migration to the LXC on the RTMP server has 52.5485s of downtime, and the docker RTMP server is 5.4345s. Where as the LXC MySQL server has a downtime of 35.3939s, and the docker MySQL server has a downtime of 36.6957s.

KEY WORD: *Service Migration, LXC, Docker Container.*