

## ***ABSTRACT***

### ***ANALYSIS OF SYSTEM MEMORY UTILIZATION OF APPLICATION MIGRATION IN LINUX CONTAINER (LXD) USING LXD API***

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*Virtual technology that is currently favored by consumers is one of them, namely container. Container, can provide overall flexibility, by being able to directly run on the operating system without using a hypervisor. One of them is LXD Container, in the use of LXD it is usually found responsive or unresponsive conditions, one of which is caused by the need for inappropriate resources. Therefore, to find out how to use the right resource and also to prevent threats to the program's damage to LXD, research is done using LXD as an application container to run service applications provided for user needs, and test and analyze system memory usage. LXD then run the migration process with LXD API on LXD from platform to platform. Furthermore, measuring system memory usage at the time before, and after migration, to find out how the characteristics of LXD can later become a reference in the use of the right and appropriate LXD Container based on user needs. In this study it was produced that the memory capacity and increasing core on the processor did not significantly influence the duration of the LXD container migration process. However, memory usage is very influential on the responsive and unresponsive condition of the system when accessing many service applications contained in the LXD container.*

*Keywords: Migration, Linux Ubuntu, LXD, Memory*