

## **ABSTRACT**

### **MEMORY USE ANALYSIS OF LIVE MIGRATION PROCESSES ON DOCKERS USING CHECKPOINT/ RESTORE IN USERSPACE (CRIU)**

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*There are several things that cause server down in the company, including natural disasters that cannot be predicted when they occur such as earthquakes, tsunamis and landslides as well as increased access to servers, especially in service providers and the Internet that result in heavy workloads on the server which results in server performance decreasing so the server can die suddenly. To overcome this problem, several solutions were made, namely to backup data and services using live migration technology. Live migration technology is one of the virtualization technologies that has the ability to move containers between servers or platforms live. But the live migration process requires a long time if the memory resource used is not suitable. In this study, testing and analysis will be conducted to improve the live migration process from platform to platform. This test uses Docker as a container for packaging applications, CRIU (Checkpoint / Restore In Userspace) as a tool for the process of live migration, NFS (Network File System) as a protocol for distributing system files over the network and using Magento services as research objects to be migrated. The results obtained from this study are that platforms use memory greater than platform1 and require less time than platform1. This is because platform2 has a RAM value greater than platform1. The greater the value of RAM that is owned by a platform the faster the backup process of live migration.*

*Keywords : Backup, Live Migration, Docker, Magento, Memory.*