ABSTRACT

Often there are various disturbances in CMS services such as websites, when accessing the website causes less optimal so it fails. To prevent data loss or damage to the service, a backup restore process can be performed on this research. Backup restore technology consists of a backup engine, one or more client backup modules are integrated into a backup machine via a backup protocol, and a backup database is integrated into a backup machine, a backup database includes a set of clusters, a set of clusters forms one or more backups , where each cluster group is unique so that the storage of one instance across all clients is reached. But the backup restore process takes a long time if the memory resources used are not appropriate. In this study, testing and analysis for the backup restore process from one cluster to another cluster. On the Master node, it can be seen that there is an increase in memory from before performing the backup and restore process, because the Master node runs a command that will be processed by the Kube API Server to perform the backup and restore process. Then a decline at the last second due to the backup and restore process is complete. When doing the backup process, it takes longer than the restore process on both the GCP cluster and the local cluster. From the results of the comparison, it appears that the backup process takes longer than the restore process.

Keywords: Containerization, Docker, Container Orchestration, Kubernetes, Backup and Restore, Memory