ABSTRACT

For a network administrator, server maintenance is a routine activity. During the process, this process requires the deactivation of the server, which results in the connection between the client and the server being lost. In order for the client to continue to be served, the status of the Central Processing Unit (CPU), Random Access Memory (RAM), and disks on an origin server must be moved to the destination server. However, this migration process will result in a reconfiguration process on the destination server. So that the destination server can immediately serve client requests without a reconfiguration process, a scheme is needed to ensure the smoothness of the process. There are several methods in live migration, namely pre-copy, post-copy, and hybrid-copy. However, this research uses the pre-copy method because during the live migration process the VM continues to run so that it can reduce downtime. To perform the VM live migration process, a virtualisation platform is needed, namely using the Proxmox virtual environment (VE). Live migration testing requires two proxmox VE servers integrated in one cluster, on the origin server one VM is created as a live migration object. In the first scenario when the original server was playing games, the test results showed a bad category for the migration time, downtime, and data transfer parameters. In the second scenario by playing offline videos, the test results showed a good category for the same parameters. Quality of Service (QoS) testing is done using wireshark software by capturing the network during the live migration process. QoS results during live migration in the first scenario of playing games obtained good test results. The second scenario playing offline video QoS results can be categorised as very good in the parameters of throughput, packet loss, delay, and jitter.

Keyword: *live migration, virtual machine, pre-copy, proxmox ve.*