ABSTRACK

The need for internet access today is very high. Almost all workplaces or offices integrate the internet into work management. CV. Natusi is a company that wants video-based social media activities to run without disturbing office work activities. However, CV. Natusi has not been able to direct certain traffic as a priority such as video social media content to certain ISPs on a multi ISP system which is considered to have better quality and performance than CV. Natusi's system at this time.

In this Final Project, the design and implementation of microtic firewall has been carried out as a routing mark for multi ISP networks for internet networks in CV. Natusi. The design is carried out using three scenarios on social media video content by carrying out data load analysis and network quality analysis. Network quality is measured by measuring QoS, namely latency and jitter.

From this study, route marking was applied to the proxy router in the main building of CV. Natusi. This company has 2 of the same ISP, namely Indihome. After that, perform data load analysis and network quality analysis. In the data load analysis, the microtic firewall scenario as a tagging route has stable results and is as expected compared to other scenarios. Microtic firewall has better network quality than other scenarios, including having a 49% lower latency than ECMP 1:1 and 6% greater than ECMP 1:2. In jitter, it has a smaller yield of 9% compared to ECMP 1:1 and 41% compared to ECMP 1:2. It can be concluded that the performance of the proxy firewall scenario as a tagging route has better results than other scenarios.

Keywords: *microtic, network management, marking route, queue, ISP, microtic firewall.*