ABSTRACT

In the earlier Frame Relay was developed to perform network operation faster by eliminating some feature on layer 2 OSI. In the Other side Multi-Protocol of Label Switch (MPLS) was developed as a substitution for the point-to-point of frame relay and private IP WANS. Theoretically MPLS offer a number of excess that exceed the traditional technology point-to-point, inclusive of low toll, big scalability, and in some case can add the reliability. For that is needed a research besides to prove the performance from network base on the IP MPLS also to know how configuration implementation conducted to network owned by PT. Aplikanusa Lintasarta.

In this final duty, conducted analysis and examination of performance parameter to infrastructure of network of MPLS and Frame Relay owned by PT. Aplikanusa Lintasarta, this matter because do not all of Frame Relay network service transferred to IP MPLS, because of some excellence owned by previous network which still on the market and also used by all of their customers and in fact most of their network for the service of internet dedicated still use the frame relay as their core network.

The result from the performance analysis showing that Frame Relay network service performance is better than MPLS network. This Matter is proved with the high level of value performance parameter of delay that reach 4,75 ms without influence of trunk utility for Frame Relay network and 108,46 ms with influence of trunk utility for MPLS, while for the bytes loss parameter of Frame Relay reach 0,0003 % and 3,4571 % for MPLS.

Keyword: MPLS, Frame Relay, Performance, Lintasarta