

ABSTRACT

Changes in business environment in Indonesia have forced Telecommunication operators to produce the best quality service and low prices. Using IP network as a network that delivery real time and best effort services become a must because the IP network has a best efficiency of the channel network than the circuit switch. This affects the services to be produced cost effective.

PT Telkom as the incumbent operator with the INSYNC program in 2014 to consolidate the core network and transform network into IP. It is expected that this program assurance PT Telkom can sustain the existence of service quality and low cost. At this time IP, network of PT Telkom has experienced some technology development with MPLS and Metro Ethernet. It is expected that the implementation of technologies can achieve the purpose of the company to produce products with competitive price. To see how far the level of efficiency achieved by existing networks, it is needed cost model evaluation. Analysis of cost analysis model is used to formulate cost, shared by all services (common costs) and costs incurred because of the service (incremental cost). Incremental cost can be set as price floor tariffs in the service means the company does not indemnify. Method used for the cost model is the Long Run incremental cost

(LRIC), which is the recommended method for calculation of cost based tariffs by ITU.

In this thesis, this is done the creation cost model for existing IP network so that it can be made cost-effectiveness analysis of a network of existing network optimization. Network optimization is a network structure based on the existing network but some of the efforts made to obtain the maximum traffic that comply with technical parameters like delay, packet loss and throughput.

Key Word : IP Network, Efficiency, Cost Model, LRIC