Abstraction

Telecommunication network manag ement means deploying and coordinating resources in order to make a plan, operate, or ganize, analyze, evaluate, design and expand telecommunication network to get service-lev el objectives all times, at a reasonable cost and with optimum capacity. One the fu nction of the telecommunication network management is performance management. ' The main problem in order to realize the telecommunication network management is the limited resources against the unpredictable behaviors and unlimited expectations from customers. So, the network should be able to operate optimally.In order to maintain the normal level of network performance, the company has to make a preventive action and stop making the corrective one. This action required a good anticipation from PT Telkom.

That thing above can be done by simulation model approach. This model will give prediction from every effect of each performance management action quickly and correctly in order to minimize the damages from every mistake that can be happened next in the reality. This final project only simulates four local EWSD exchanges Bandung, which are Cijawura, Turangga, Tegallega and Timur tandem. Simulation model design includes system modeling, building simulation menu structure, component needed in simulation and appropriate algorithm design. This simulation model use next-event time-advanced approach.

There are three actions of performance management will be simulated, changing the number of opened lines, re-routing to avoid congestion, and network reparations. The simulation result will show how the model can explain process and causality effect from every action accurately.

The conclusion that can be taken from the three case study above is the simulation is able to give a prediction to the traffic condition that will happen next according to the network management action, including the optimum configuration. This condition will create on easier way to users to judge the effect of an telecommunication network management that are taken by PT Telkom and will support the optimality of an network.