

ABSTRACT

people that needs to use data services is increasing every years. To maintain speed data services, we need to keep good *quality* network we need a good network *quality* in an area. because of that now is important to considered data services. But the fact still have a problem like poor *coverage* or *bad quality*. To solve the problem we need optimization with standar operator.

This final project is about optimization WCDMA network in district Gedebage especialy in data service of WCDMA. To do the optimization first we need to survey the area. Then we need to do *drivetest* to analysis and know the *quality* that operator give for customer in the area. After *drivetest* we need to specify that optimization we need to do and measuring parameter like RSCP, Ec/No, and KPI. Optimization that we will do in physical antenna or so called optimization Radio Frequency. After we have the optimization recommendation then we are doing simulation in software Atoll to know if the optimization recommendation is good or not.

Standard based operator 3 (tri) for *coverage* are still allowed in range -86 dBm to -83 dBm while Ec/No in range -12 to -8. Simulation result based on optimization recommendation in *Coverage* and *Quality* we get is *coverage* \geq -86 dBm and *quality* \geq -8, for Accesibility *coverage* we have is \geq -78 dBm dan *quality* \geq -4, for Retainability *coverage* we obtained is \geq -86 dBm and *quality* \geq -8, for Integrity we have *coverage* \geq -83 dBm and *quality* \geq -8. The simulation result in *coverage* or *quality* already standardized operators 3 (tri) so the optimization recommendation given are good and can be used as a reference operator for optimization in area district Gedebage Bandung city.

Keywords : WCDMA, *drive test*, *optimasi*, KPI, *coverage*, *quality*.