

ABSTRACT

The cellular communication industry in Indonesia has grown rapidly in this recent day. PT. Telkomsel as one of big cellular network providers, have a great grown rapidly so fast and significant. According to grown fast new users and also committed that quality is the number one, PT. Telkomsel have a new plan to restrukturisation GSM network for increasing Capacity with develop and changed device of HC BSC became eBSC. The process called *Rehomming*.

This Final Project research process of rehomming 3 HC BSC became BR9.0-evolution BSC in Telkomsel GSM network study case BSC 2G Pengayoman 2 – Makassar area with compare parameter performance of device BSC before and after rehomming activity done. Analyze was done with look the traffic data from OSS PT. Nokia Siemens Network and then meansuring the drive test with TEMS 8.1.3 for compare the quality on network when activity rehomming was done.

As the result of this planned and implement the process rehomming BR9.0-evolution BSC that it can be increasing *key performance indicators* (KPIs) Such as : CSSR (Call Setup Success Ratio) increase 1.34 % (93.64 % to 94.98 %), SCR (Success Call Ratio) increase 1.2 % (97.80 % to 98.82 %), HOSR (Handover Success Ratio) increase 0.52 % (97.07 % menjadi 97.59 %) and TCH Blocking decrease 0,00113 % (0.02 % to 0.0087 %). Other side, Value of DCR (Drop Call Ratio) increase 0.19 % (0.2 % to 0.39 %), it should be decrease more ≤ 0.2 %. Base on analyze of traffic and capacity know that influence of increasing DCR value because Load at module of eBSC no balance or need rebancing load on LIET.

Keywords : *evolution BSC*, Network Performance , GSM Network.