ABSTRACTION

Capacity, efficiency, availability and reliability are the fourt factors that based the importance of new network planning in Cirebon Region (Kandatel Cirebon). Regional Metro Junction is one of network planning program held by PT. Telkom Kandatel Cirebon which is one of the network planning policy DIVRE III region.

With realization of Regional Metro Junction network as network transport from main to STO either beetwen STO, then various of POTS either Non-POTS service with Broadband or Narrowband can be integrated and delivered to various area in one region, which the one is service area of Kandatel Cirebon.

The first step from this RMJ planning is to define the network environment. Aspect of anticipate the future need of channel or various of service and existing network condition must be concern to get excellent planning performance. After network modeling, then analyzed the performance and evaluated the network model based on PT. Telkom standar.

The planning of SDH transport system will have implemented SDH equipment of Alcatel 1650SM-C (Cilimus and Majalengka), Alcatel 1660SM (Cirebon) and Alcatel 1662SM-C (Kuningan and Cikijing) with G.652 optical fibre media transmission and network topology is Ring topology. The planning of the network is Cirebon-2 Ring (Ring CBN-2) with STM-4 capacity. *Ring* CBN-2 implemented SNCP Ring protection system which protected the traffic in each link (*full end path to path protection*).

From link calculation considered enough margin system, 3,995 dB s/d 13,605 dB, and *rise time* total < *rise time* system has fulfilled then *Ring* CBN-2 will be able to build. The system of the network have bit rate about 654,21 Mbps so it can accommodate the Ring CBN-2 capacity, 622,08 Mbps (1 x STM-4).