

## **ABSTRACT**

The increasingly of reliability communication service requests makes Telkomsel as one of telecommunication operator in Indonesia have demanded to increase their services quality. One way to addressing the problem is to add the amount of channel. Adding the amount of traffic makes channel increase from BTS to BSC needs new site and link that can services data and voice comunication.

In this Final Task is planned all transmission link uses mini link High Capacity point to point between Babat Toman site to TTC Palembang through several hops. In addition, there is a new site that must build between Betung and Sekayu as repeater. These represent one to increace quality from acceptance of microwave in Sekayu 2 Betung link.

The result from this planning is all link in line of sight condition.with existing tower space while CP Talang Duku tower height must higher than 82 m.99.99% and calculation result represents that Talang Duku –New Betung and Betung-Pangkalan Balai link have fulfilled ITU-G 826 availibity standard, while Babat Toman-Sekayu 2, Sekayu 2-Talang Duku, Pangkalan Balai-TTC Palembang link have not fulfilled yet thus needs space diversity.

**Key words : planning, site, availability**