

## ABSTRACTION

Telecommunication technology has developed into multimedia service level which needed wideband access network. CDMA450 is one of the network access technology that provide wideband access network. CDMA450 technology has some advantages like coverage, capacity, data capability and flexibility. CDMA450 make operator possible to available wider cellular bandwidth than the other one by significant cost efficiency. This case make cellular operator possible to reach more voice service area and quick data in cheap cost.

Telecommunication service involve 2 main roles, first the operator and second the user. Each of them come with the different expectation. A good network planning means overcome both expectation, which are serving the user and also giving an optional profit to the operator. This final project is studied about how to create a network planning that can accomodate those different expectation, or at least enclose an optional network planning.

The main idea of this final project is distributing traffic in the non uniform way. The network planning area consist Of 10 area kabupaten in Jambi province and each kabupaten has its own user density. By determining traffic base on the user distribution user density Jambi has 10 different site varian. Number of BTS and user are become the main component for financial analysis, where cost and benefit are raised as well as the raised of BTS and user.

The result of CDMA450 network planning are number of estimated site, site radius and financial performance analysis. The site has non uniform traffic characteristic conform to its user density. Financial performance analysis gave appropriate result due to 3 performance parameters : NPV (Net present Value), IRR (Interest Rate of Return) and Pay Back Period (PBP). From the analysis result can be concluded that CDMA450 planning in Jambi province has met the criteria of an optimal network planning.

Key Words : CDMA450, Cell & BTS, Fixed Wireless