

ABSTRACT

Development of the ICT sector is currently very quickly according to increasing demand need for the services, the Government of Timor Leste has buildup broadband infrastructure to connect and provide services to all government agencies in Dili and throughout the district as one answer to the demand. Timor Leste government believes that the roll-out and adoption of broadband infrastructure is very necessary and important in order to improve the efficiency and effectiveness in all government agencies both in the capital as well as those located at the district level.

Network planning is the focus of this thesis, particularly concerning the capacity, coverage and costs involved in implementing WiMAX and Fiber optic technology. Techno economy will be analyzed CAPEX and OPEX, NPV and IRR and then compare the economic value of both technologies in its implementation and make recommendations to the governments in developing broadband Infrastructure which needed in accordance with the expected level of user capability.

With an overview techno economic analysis of the implementation government Broadband infrastructure can provide benefits in the development towards a better network and the expected development of a network with multi-year budget that has been allocated by the government to be utilized well and efficiently in accordance with the selection of Wimax and fiber optic technology.