

## **ABSTRACT**

Nowadays, requests and needs for data communication service in Indonesia has improved considerably, especially broadband services. Various services by various operators are trying to fulfill the needs, one of which is ADSL technology provided by PT. TELKOM. The basic problem issued in this technology is the range of provided area. ADSL could only cover less than 5 km range from STO. Due to this problem, only several areas could enjoy this broadband service and many more that could not.

In others side, for completely cover all Bandung region with broadband services, another newest technology emerged, one of them is WiMAX. This wireless technology has several advantages to cover up the lack of ADSL, especially from the area that could be served point of view and capacity. The last point, this technology can implement for complement network or substitution network.

To apply that technology at the field, the need of planning is required. This final project mainly discuss about the planning of WiMAX network configuration as a complement of ADSL network and also as a backhaul network with a planning area in Bandung region. Within the synergy of these two technologies, all the region of Bandung could be served or covered by broadband network.

Keyword : broadband, ADSL, WiMAX, Backhaul