

ABSTRACT

The integration of *WiFi* and *GSM* network is one of solution that can be used to present internet in a building. Basicly a building was covered by *GSM* network. This integration is done at the side of BTS by adding WLAN Booster, Multi Band combiner and Access Point. While for internet access can be provided by ISP, 3G high speed internet or intranet.

This paper would be discussed process in planning the integration of *WiFi* and *GSM* indoor network. The planning done by calculating the capacity of customer, network of configuration, and evaluation the result of the planning.

Some steps would be done in the process of planning integration of *WiFi* and *GSM* Indoor network are estimation of number Access Point required in commitment area based on the number of customer and spesification of instrument which is used by operator. And also would be done planning the number of indoor antenna needed, radius coverege of each antenna and optimal position of indoor antenna.

And then, the result of the planning will be compared to *KPI*. The RSSI for *WiFi* must bigger than -65 dBm and the Rx Level for *GSM*, 95% from commitment area must bigger than -80 dBm. So, it will get a good *GSM-WiFi* indoor network with optimal capacity and also can give good signal quality.