

ABSTRACT

Institut Teknologi Telkom as campus based on information technology internet access is the important think used to get information, one of the way is used WLAN network. Followed by increase user of WLAN access it is very possible that WLAN coverage is one think that must be concerned about. Although most areas in the IT environment Telkom already has access point, but still there is the location a strategic location that has not been covered hotspot networks, where function is later expected to assist continuity of learning in the classroom, as well as the convenience of students and faculty to seek or exchange information.

At this final study, coverage will be a development of IT Telkom hotspot network to service the buildings E, F, G, H, J, and FEK. Where the development plan is to compare the existing conditions and planning. By measuring the signal level of the initial conditions and then perform signal coverage improvement planning. Coverage area by using the simulation software v5.4 RPS. which will provide improved visualization of the planning conditions WLAN networks. From the simulation results can be generated graphs for delay parameter, and the wireless signal interference coveraganya average. The model used in the calculation of coverage area of WLAN planning is multiwall propagation model COST 231 indoor. In this model into account the damping effect of the wall so that the results of the calculations approach the real situation.

The results of the review location areas that have not been covered well. Improvements made as a change in position on the building access points such as E building and FEK building and the addition of access points such as in building F 3 access points. Multipurpose and magister Building 1 access point each. Therefore the expected results of this study is a wireless network that has a good performance, as well as reach out to the Strategic areas that need internet access to all components IT Telkom campus can be fulfilled.

Key words: hotspot, coverage, internet, topology, the access point