ABSTRACT

To maximize the received signal typically use WLAN indoors or outdoors using UMTS technology. However, if the user moves from inside to outside will decrease or increase in signal quality due to the influence of vertical handover. Effect of vertical handovers will affect the quality of the received power, and the probability of dropping of these technologies.

In an analysis vertical handover algorithm which uses an *algorithm dwell timer*. The use of this algorithm to analyze the effect of vertical handover is divided into three phases. The first stage is to determine the future use of *dwell timer* inisiasasi using *received signal strength* (RSS). The second stage is the handover decision if the new received signal strength exceeds the conditions of the moment. And the final condition of taking the results of the use of algorithms to dwell timer parameters are taken to obtain the use of *dwell timer algorithm* can minimize the probability of dropping.

In this final simulated vertical handover mechanism from WLAN to UMTS networks based on user displacement and analyzed the effect on the probability of dropping. From the simulation results obtained two best scenario to get the minimum dropping probability. The results obtained in first scenario at a steady pace and change dwell timer algorithm obtained the minimum dropping probability opportunities occur at RS = -82 dBm and RSSI = -78 dBm at 0.1875. While in the second scenario by changing the speed of the algorithm and the fixed dwell timer minimum dropping probability opportunities occur at RS = - 85 dBm and RSSI = -81 dBm at 0.1625. Third scenario by changing the speed user to decide ideal algorithm btained the minimum dropping probability opportunities occur at RS = -85 dBm and RSSI = -81 dBm at 0.6125

Kata kunci : *Received Signal Strength ,Vertical handover, Dwell timer algorithm*