

ABSTRACT

In mobile wimax, Handover is the process of transfer of canal traffic automatically in MS, where MS is used to communicate without the termination of. Handover initialization is based on the signal quality measured by the Mobile Station (MS).

Handover occur due to the quality of the signal received by the MS is smaller than threshold signal quality. Signal quality parameters on the mobile wimax is the SINR (Signal to Interference Plus Noise Ratio) , SINR distorted due to MS movement through the shadowed palces, where many objects there are obstructions such as buildings, walls,etc.

Based on the results of analysis with the spread of different users , user distance spread does not exceed the cell radius of 1.7 km, of the simulation system, the farther the distance the user, so the higher the value of pathloss, pathloss values which range between 132 dB to 148 dB. The farther the distance causes the Receveid Signal level by users have decreased, the simulation results, the value of received signal level (RSL) ranged from -95.1 dBm to -79 dBm. Intercell interference is influenced by the number of users and the distance the user from the serving BS and neighbor BS. From the simulation with a spread of 25 users, intercell interference values ranged from -78.66 dBm to -64.68 dBm. For the spread of 50 users, intercell interference values ranged from -79.34 dBm to -62.35 dBm. For the spread of 100 users, intercell interference values ranged from -82.31 dBm to -62.31 dBm. from the results above, the value of the intercell interference is highest with 100 users distribution, because the farther distance user of a neighbor BS. SINR is affected by intercell interference, the higher intercell interference causes decreased SINR value. For the spread of 25 users, SINR values ranged between 13.33 dB to 15.95 dB. For the spread of 50 users, SINR values ranging from 8997 dB to 12.9 dB. For the spread of 100 users, SINR values ranging from 5943 to 9906 dB. From the simulation results, that the higher the movement of the user so the system performance could decrease, can be seen more high SINR required to achieve the target BER. Even for the speed 120 km / h, the target BER can not be achieved. With increasing BER, then the user will not handover, the user will still be examined by the serving BS, or the user dropping