

## ABSTRACT

Requirement human of telecommunication demanding technology to develop of communication system that are flexible, can move freely, and high technology. High mobility of user causing a handover from one Base Station to new Base Station. Existence of the handover expected do not cause the disconnection at serving area, so dropping will not happen in that network.

One of type handover which happen in WCDMA-UMTS is intersystem handover(ISHO). Intersystem handover (ISHO) happened between cell which have two different RadioAccess Technology (RAT). One of example for handover is intersystem handover WCDMA to CDMA 2000 1-X.

In the simulation results WCDMA intersystem handover to the CDMA 2000 1-X, get the value of dropping probability of CDMA 2000 1 X is smaller than WCDMA. In other words when the WCDMA cells drop, CDMA 2000 1- X cells still can handle the user, so it will not prevent termination or drop call. In the scenario of varying the threshold value, it was found that if the threshold is raised, then the dropping probability WCDMA will also be even greater. Based on the speed, the higher the speed the success ISHO getting smaller, so the value of dropping probability increases. This is because the interference between cells is large.

From this simulation, the optimum threshold for ISHO with time to trigger are **-92 dBm** for RSCP WCDMA and **-104 dBm** for RSSI CDMA 2000 1-X. The optimum threshold for ISHO without time to trigger are **-96 dBm** for RSCP WCDMA and **-106 dBm** for RSSI CDMA 2000 1-X.

**Keywords:** Intersystem handover, threshold, RSCP, RSSI, dropping probability, time to trigger