ABSTRACT

Today, celluler network technology is needed. however, areas that are far from city or BTS have a low signal so that it interferes with their activities. then a solution is needed to increase the signal of the celluler network in areas that have a low signal of the celluler network. So, that activities using the internet can run again and we will compare internet speed before the simulation and after the simulation. So we simulated OpenAIrInterface as a solution to this problem. OpenAirInterface is an open source project implementing 3gpp technology using USRP as computer hardware and a program to identify LTE SIM cards. OAI has 2 parts, namely EPC as the core network which funtions to provide internet connection to celluler, and eNB as celluler access to OAI and then cell will be connected via eNB which has been programmed at USRP. EPC will provide a connection from the internet to the eNB and celluler that is already connected. the result is that the previously low celluler signal will switch the connection to an OAI network that has a good signal so that internet network activity returns work.

Keywords: OpenAirInterface, EPC, eNB, USRP