ABSTRACT

In this day and age, cellular network technology is very much needed by society. However, in areas far from urban areas that have low signals that interfere with their activities, a solution is needed to increase the cellular network signal in areas that have low signals so that activities using the internet can run smoothly again and compare internet speeds before and after the simulation. So, we made a simulation of Software Radio Systems Radio Access Network (srsRAN) as a solution to this problem. srsRAN is an open source project implementing 3gpp technology using Universal Software Radio Peripheral (USRP) as computer hardware and a program to identify LTE sim cards. The srsRAN software has 2 parts, namely the Software Radio Systems Evolved Packet Core (srsEPC) software as the network core which functions to regulate data traffic and the Software Radio Systems Evolved Node B (srsENB) software as mobile access to the srsRAN.

Keywords: Software Radio Systems Radio Access Network (srsRAN), Universal Software Radio Peripheral (USRP), Software Radio Systems Evolved Packet Core (srsEPC), Software Radio Systems Evolved Node B (srsENB)