

ABSTRACT

The Open Source Base Transceiver Station (*OpenBTS*) is a replacement for conventional infrastructure from GSM technology. *OpenBTS* is based on open source software that allows GSM handsets to call without using a cellular network operator. But in operation, special commands are needed and can only be operated on the *OpenBTS* CLI terminal so that it will be difficult if operated by a layman. A solution is needed to facilitate the operation of the *OpenBTS* system.

The solution provided is by converting the *OpenBTS* system into an application. This final project will plan and create an application that will make it easier for users to operate the *OpenBTS* system. The application in this final project is website based, the website used in this final project is localhost web using the javascript programming language as an interpreter from *OpenBTS*. The application in this final project can operate the main functions on *OpenBTS* systems such as configuration, registration and database. So that it will be easier to operate the *OpenBTS* system.

The results of testing *OpenBTS* management system applications that have been made are feasible to use. This application can configure servers on the *OpenBTS* system. This application can also display users connected to the *OpenBTS* network in this final project so that it can become a user database. Based on the results of the questionnaire with respondents 98.1% answering this system is needed for ease of operation.

Keywords: GSM, telekomunikation, opensource, *OpenBTS*.