ABSTRACT

The high level of community activity makes someone prefer something practical. Someone who has high mobility will be more helpful if there is a system that is able to automate information.

This study aims to design and implement a communication protocol for the community. This communication protocol is a system that regulates communication in a residential area. The design of this communication protocol, residents of the settlements can communicate with each other and receive information and announcements clearly what was conveyed by the head of the settlement.

There are three tests carried out, namely alpha testing, beta testing, and delay testing. In alpha or functionality testing, the system can run well where the system can convert text into sound to perform playback. Beta testing is done to find out how feasible this system is to use and get an average result from 43 respondents, which is 72%. The delay test is carried out to find out how long it takes from the beginning of the vote until the vote is played. Play 1 has a delay of 10.7 seconds while Play 10 has a delay of 19.66 seconds. There are play 1 to play 10, each of which has a different delay when selecting play 2, it will increase by 1 second from the delay in play 1, as well as for the next play, which will increase by 1 second for each play.

Keywords : *Alpha, Beta, Communication, Delay, Protocol*