

ABSTRACT

Public services at the urban village level still face various challenges, such as manual administrative processes, repeated data entry, and lack of timely information delivery to citizens. These issues result in inefficient services and high risk of data errors, especially during document applications. The main problem addressed in this study is the absence of a modern system that can provide reliable real-time notifications to citizens in the village administration context.

The proposed solution is a mobile-based urban village service application developed using Flutter and Firebase, equipped with real-time notification features. This application enables citizens to submit service requests online, track their status, and receive real-time updates whenever changes occur. It also includes a role-based management system for admin, head of village, and IT administrators via a Firebase-powered web dashboard.

The testing results indicate that the application delivers a good user experience, with an average satisfaction score of 90% based on evaluations from 42 respondents. Moreover, the real-time notification system achieved an average delay of 90 ms, which is well below the international threshold of 250 ms (ITU-T G.1010 standard). These results demonstrate the system's effectiveness, efficiency, and responsiveness in delivering public service information to users.

Keywords: Flutter, Firebase, public service, real-time notification, urban village application