ABSTRACT

Many public places provide free Wi-fi without managing internet access. This causes an increase in network traffic which has the potential to disrupt network performance. The internet does offer various benefits, such as access to information and education, but there are also potential risks that need to be aware of if used without supervision. The solution to this problem is to implement a hotspot network with a bandwidth management quota limitation system, as well as web filtering in order to manage internet access evenly and in a controlled manner. The application with the title "Implementation of a Hotspot Network on Mikrotik" focuses on creating a login page on an internet network with an application aimed at managing regular internet access in public places, especially for users among children. The results of this implementation show that users cannot log in if the username is being used by another user, and also cannot log in again if the quota has run out, as well as providing measurement and calculation results for delay and jitter values ranging between 1.1-4. 2 ms and the packet loss value ranges between 2.1 -3.7%, therefore the results of the QoS parameters fall into the very good category for the quality of the hotspot network implemented.

Keywords: Hotspot, Limitation quota, Mikrotik, Manajemen bandwidth, User Manager, web filter