

## ABSTRACT

*Hotspot* is a wireless internet service that uses Wi-Fi technology (802.11b). The existence of *hotspots* is based on increasing the importance of the Internet in human life, where Internet connections are used not only humans to have fun, but also for businesses, promotions, and even learning.

The latest breakthroughs recently there is the use of vouchers and billing within the *hotspot* network. With the voucher, then the *hotspot* voucher system is suitable for deploying a wireless cafe. Because of this voucher system works like a proxy on a computer network, which can restrict user access to the Internet network in accordance with the package offered vouchers. These access restrictions can include access speed, time of use, quota usage, etc.. The advantages of *hotspot* voucher system is a user can select a customized package of vouchers user needs access to internet.

In this project implemented a voucher and billing-based hotspot network using mikrotik router OS. The results of this final project is a reliable voucher and billing-based hotspot system, which has features that are very supportive for such networks as walled garden for trial system for client, blocking IDM to maintain the stability of hotspot network on client side , leased line hotspot to make fixed speed connection and a block against netcut order to ensure sure that the system is working normally In addition to reliability testing was done a few that produce some of the conclusions that is, the router can accommodate user mikrotik hotspot > 10 users, the capacity of the router to request that reaches our hotspots weblogin until 1600 request, the router on the network throughput of FTP which remains dependent on the type of account that is used, and the number of users that access does not affect the response autorefresh hotspot billing.

**Key Word :** *hotspot, Wi-Fi, network router, user, vouchers, billing*