

## **ABSTRACT**

A computer network consist of a number of computer which have similarity and difference. Wired LAN Network mostly used to conduct data communication bus because it more secure and have a good performance. But, now many people complaint about Wired LAN security. This make the ISP provider service to monitor their user. Based on it, Wired LAN Network must have efficient and great security system.

RADIUS is a security system based on AAA (Authentication, Authorization, Accounting) which has fused inside of it. With that mechanism, the demand of the administrative support will be decreased and increase the network security. RADIUS work on FreeBSD-6.3 STABLE operating system which have minimum human interface compared the other operating system. So the possibility for server to be hacked is minimum. With using RADIUS security system which have high level security system because not easy breaked through and also have monitoring and management system make administrator cannot monitor and control the user or bandwith in LAN network.

This system is built with main system that is VPN service which work above IPv4 network have a number of service inside it, there are database server, RADIUS server, PPTP server, and proxy server. All of service have been installed in a computer so the system is more efficient.

Keywords : AAA, IPv4, security, RADIUS, VPN