

Abstract

STT Telkom Hotspot is a wireless computer network service system which is provided by STT Telkom. This service can be accessed within hotspot coverage area in STT Telkom. The purpose of this service is to facilitate students in accessing intranet or internet, so they can use the service at anytime, and anywhere.

STT Telkom Hotspot has some lack on its system. It has no authentication system to authenticate anyone who access the network. There is no monitoring system to log anyone who accessing the hotspot.

From this problem, authentication system for the hotspot user is made which based on protocol IEEE 802.1X. This system ensures the user to login first before use the hotspot services, so the monitoring of user hotspot can be done.

The result of this final assignment has shown that this authentication system can fulfill the need of monitoring hotspot users and accounting which based on connection time. Based on analysis of transaction time of the system, it has shown that the distance of station and access point related to time needed for authentication. It is because of signal strength which give effect to the packet sending. The amount of user data in database doesn't give effect to authentication time, because authentication time depends on duration in finding user data in database.

Keywords : hotspot, wireless, hotspot coverage area, IEEE 802.1X, monitoring, accounting.