ABSTRACT

The most basic needs of highway users is the smoothness and convenience when carrying out transactions at the toll booth. For that, we need a ticket access toll road that is more flexible to provide ease of access and speed the transaction process. RFID (Radio Frequency Identification) is an identification method to retrieve data remotely. By using this system, all processing of transactions at toll gates will be conducted electronically and automatically, so there is no longer necessary to provide a card counter officer at the entrance and receive a card and payment of toll at the exit.

Here the communication is necessary in order to be able to connect local network between the terminal toll with servers in faraway places. Internet network is a public network that is open to all parties, but with the development of Internet applications demand a protected network of people who are not interested. Network Virtual Private Network (VPN) is one proposed solution for protecting data transmitted on the Internet network. Hence arose the idea to use a VPN as the backbone network between terminals and servers. Because the VPN ensures data security with data encryption application.

From the test results and then analyze how the performance and security of the system before and after using the VPN. Whether the data transaction systems to meet ITU-T standards based on delay, throughput and packet loss. On testing it was found that the value of delay and throughput when using VPNs tend to be larger than not using a VPN. For the security gap when not using the VPN data transactions can be seen by other users who are not interested and wanted to take advantage of the data transactions. Whereas when using the VPN, other users can not view the transaction data that is being done.

Key Word: RFID, Virtual Private Network, Enkripsi
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