

ABSTRACT

Software Defined Network (SDN) is a technology that separates parts of network devices, namely, Control Plane and Data Plane. The control center on SDN is located on a controller that has been programmed to be able to manage the process of sending data packets from the center and sending it to the client. DHCP Snooping is used to prevent or filter out other servers that are not trusted in providing network access to users or client computers. Parameter testing uses the same scenario as the previous research, which is to find the value of the Discover Response Time, Request Response Time, and Throughput parameters.

The results of the tests that have been carried out have improved values, both DHCP Snooping is not active and DHCP Snooping is active. In the Discover Response Time parameter, it has been obtained both from the inactive DHCP Snooping scenario and the active DHCP Snooping scenario, resulting in an improvement in the value of the Discover Response Time parameter after using DHCP Snooping of 3.138 s. In the Request Response Time parameter, both the inactive DHCP Snooping and the active DHCP Snooping scenarios have been obtained, resulting in an improvement in the Request Response Time parameter value after using DHCP Snooping of 3.082 s. In the Throughput parameter, it has been obtained from both inactive DHCP Snooping and active DHCP Snooping scenarios, resulting in an improvement in the Throughput parameter value after using DHCP Snooping of 1362.587 Kbps.

Keyword : *Software Defined Network, SDN, Aruba Van Controller, DHCP Snooping, QoS.*