

Abstract

Recent years, several controllers have been widely researched and developed such as OpenFlow POX controllers, Ryu, OpenDaylight, Beacon, Maestro and floodlights. With so many controllers emerging as an option to use, then the question arises, which controller can be selected if you want to get the best network performance? How to choose and determine which controller will be used to achieve maximum performance? There have been several studies on the comparison of these controllers, but more focus on the performance of the controller on the complexity of the network topology, while the data packet aspect has not been studied. Meanwhile, data packets are one aspect that can be used as performance indicators of a controller, because with the more successful data packets processed, the better the performance of the controller on a network. This study analyzes the four popular open source controllers with QoS parameters such as latency, throughput, jitter and packet loss that are widely used to measure the performance of a network with a method that focuses on packet delivery. From the results of research conducted, Ryu is a controller that has a superior performance when measured from the value of latency, jitter and packet loss

Key words : floodlight, OpenDaylight, OpenFlow, POX, SDN, Ryu