ABSTRACT

The shortest path search algorithm known as the shorterst-path is used in determining the route in a graff. This is done to determine the shortest path from the starting point to the destination point in a graff. The shortest path search algorithm itself has been implemented in the network, this is done to find the path or shortest route from an initial host to a destination host with a certain topology. With many shortest path search algorithm give us the option to determine which algorithm want to use. Besides, we must determine which algorithm has the fastest computing time and efficient use of memory space.

In this research we do comparison of algorithm complexity in SDN network. where the goal is to determine the best algorithm in a topology by determining the complexity of each algorithm. to know it here the authors will perform algorithmic analysis to find out the complexity of the three algorithms, A-star algorithm, Floyd-warshall, and Viterbi obtained from the convergence value and memory value required. Each algorithm will be planted inside the RYU controller.

The result of testing each algorithm in this research is whether or not an algorithm depends on the characteristics of the growth rate algorithm and the amount of data. the increase in the size of a feeding network the greater the value of convergence and memory required. While if an algorithm is said to be good on a particular topology, it does not guarantee that the algorithm will be well used on other topologies.

Keyword :*SDN, Complexity, Ryu controller*