ABSTRACT

Mininet Usage As Software-Defined Networking Learning Media

By

Rifkiansyah Meidian C.

NIM: 13511084

Computer network are of course part of daily life for internet users or even computer users connected to the local network without being connected to internet. However, computer networks are fragile and prone to change. A little bit of change on the network system might end in a chain of damage that disables the whole network or at least lowering the overall performance of the network. Several methods has been made to ease the load on networks, such as routing, load balancing, and backup server to allow the network to keep running when changes are being made on the network. However, there are no guarantee that the network can work as the theory that was made before when it is worked. If there are mistakes after the change applied, performance of the network can be significantly affected in a negative way. On this thesis the usage of virtual machine application **Mininet** for **Software-Defined Networking** will be covered and its usage to create networking prototype and simulate behavior of a network. On common usage of Software-Defined Networking the user need to make several hosts, use a controller, and then start the network. However, learning about the tools used for Software-Defined Networking is not easy. A lot of tutorials exists, but not all of them can effectively teach the usage of tools and Software-Defined Networking concepts. With this thesis a simple implementation of Mininet will be made to help new users to learn Software-Defined Network concepts.