ABSTRACT

Topology discovery is a critical component of any Software Defined Networking architecture. In order for the controller to configure and manage the network, it needs to have up-to-date information abut the state of the network, in particular it's topology. As well as with the conventional network, knowledge of the up-to-date physical topology of network is crucial to a number of critical network management tasks, including resource management, event correlation, and root-cause analysis.

On this final project research has been carried out measurement of topology discovery runtime on Software Defined Networking and conventional network, then do a comparison of topology discovery runtime on this two network technology. At this final project research also has been tested the affection of network topology on topology discovery runtime. Analysis about differences in how topology discovery runtime works on Software Defined Networking and Conventional Network also has been carried out on this final project research.

According to carried out test, topology discovery runtime on Software Defined Networking is 53% quicker than conventional network. The affection of topology discovery runtime is 97,1% for Software Defined Networking and 99,5% for conventional network. Software Defined Networking has more efficient topology discovery because all the information of topology state is stored at the controller.

Keyword : Topology Discovery, Software-Define Networking, Conventional Network