ABSTRACT

As time progresses, technology develops. Similar to the Internet, one of which is in the telecommunications industry such as the idea of an NDN network architecture that can reflect internet today's NDN IP hourglass into hourglass . The NDN architecture has innovations in network systems for the future, especially in terms of forwarding, routing, and caching packet internet. The problems experienced by users today, the majority of problems accumulate in the length of time a data is accessed due to the nature of the data that is too centered on one point, therefore NDN is here to solve this problem.

In the simulation that will be run in this final project, it is related to the NDN simulation to analyze the data traffic rate and get a dataset of the data traffic rate recorded by Wireshark, followed by clustering the NDN data packets, and ending with the classification of the NDN data packets. The purpose of testing in this Final Project is for users to know more about the basic performance of NDN in conducting a transaction from data packets and interests, and for Machine Learning it also has an important role for network technicians in determining the next development of the NDN system to further maximize routing and forwarding paths. package to make it more convenient for the user.

The results of the NDN simulation to analyze the data traffic rate produced satisfactory results, especially on the forwarding and routing, and the recorded data was successfully labeled by the “UDP (NDN)” protocol.process clustering can be said to be successful by producing 8 clusters where this cluster really represents the identity of each data as a label for the data itself, and the classification process also produces an optimal accuracy value of 0.97 using the test and training data values of 50/50. It can be concluded that all the tests that have been carried out have produced satisfactory results both in terms of NDN and Machine Learning.

Keywords : Named-Data Networking, Machine Learning, NDN Package Clustering, NDN Package Classification.