

ABSTRACT

Named Data Networking (NDN), as a design for a future internet network architecture capable of changing the point of view in the network, from previously host-centric to data-centric. In NDN, an IP address or IP Address is replaced with the name of the data content. The advantage of NDN compared to IP-based networks is that NDN has a caching algorithm to regulate how data is stored from producers (content providers). So that it can reduce network load, especially in the server section, and can provide benefits for multicast cases or re-sending of content data to users due to transmission errors, for example losing data packets.

To improve NDN network performance, the NDNS mechanism is used. NDNS is a database that provides information about the zone location of data content in the network. Serves to help map the routing process so that the requested data content can be found quickly on the network and can improve the delivery of data content to consumers.

In this final project, a simulation is conducted to examine the NDNS mechanism on the NDN network in supporting caching in the NDN network. Changing the number of nodes in the network topology will help determine whether it will be very useful to improve cache efficiency on a small scale or a large scale network using the NDNS mechanism on an NDN network. From the simulation, the data obtained explains that NDNS can support caching in the NDN network to make it more efficient in the data transmission process.

Keywords: NDN, NDNS, Caching, LRU Algorithm.