

## **ABSTRACT**

The rapid development of technology causes the evolution (change) in the communication system. Future telecommunications needs will become more complex as technology develops. The Named Data Network (NDN) provides an additional content-centric model for IP capabilities. NDN is a capable candidate for future IoT architectures, and with this in mind, it is an interesting area of research. In NDN, all data is treated with a unique name in its namespace. The data consumer requests the name of the data object through the desired data packet and receives the appropriate data of interest via the data packet from the data source or intermediate node that has stored valid data in its content repository.

The benefits of NDN include robust communication for network architecture using point-to-point. This research focuses on exploring the process of delivering (distributing) data using the Named Data Network. In this study, NDN will be simulated with an NDN simulator and focused on the results of data distribution. Storage in NDN cache storage, which is one of the advantages of NDN for the process of storing data content on each node, can make data distribution more efficient. Various methods related to NDN are used to configure the Topology Grid, which will be used to simulate sending data to consumers. Focus on Simulation of 4x4 Grid topology (16 Nodes) with Named Data Network via NDN-SIM for configuration, reception and transmission as well as flow of the simulator installation. The results obtained from this study with an average accumulation of data transmission of 25.80 kbit/s and data reception of 856.80 kbit/s, with an effectiveness value of 85.6% in data transmission.

**Keywords:** Named Data Network, Data Distribution, NDN-SIM