What is NS-3?

Module Description

In this module, we will learn about the NS-3 simulator. What are main some of the features provided by the NS-3 simulator that makes it a good choice for NDN research.

Procedure

1. NS-3 is a discrete-event network simulator for Internet systems, targeted primarily for research and educational use.
2. NdnSIM is a module that adds NDN to the NS-3 simulator to simulate NDN networks. We can use other types of networks as well but what makes ns-3 a good choice for NDN research is the fact that it is a discrete-event network simulator, which means that it is a simulator that operates on discrete events.
3. Adding to that, ns-3 provides a lot of features that makes it a good choice for NDN research. Some of these features are:
    - It is written in C++ and provides a Python binding. This makes it easy to use and extend.
    - It provides a lot of models for different types of networks and protocols.
    - It provides a lot of tools for network simulation and analysis.
    - It is an open-source project that is actively maintained and developed.
    - It provides various types of communication channels that can be used to simulate different types of networks.

For ndnSIM, we only need to focus on what are the communication channels that we need to use to simulate NDN networks. To learn more about the communication channels provided by ns-3, you can check the ns-3 documentation.

In next module, we will learn about the communication channels provided by ns-3 that can be used to simulate NDN networks, how ns-3 models the nodes.