

Lab Assignment 4:

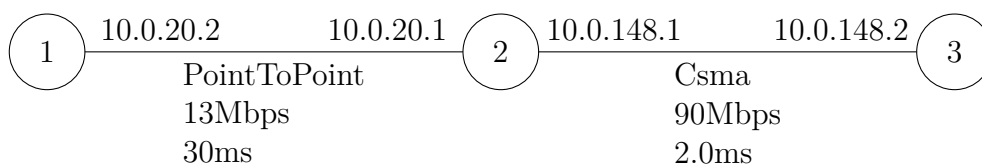
Network Simulation

Scenario

A specific network topology should be simulated using the **ns-3** network simulator.

Assignment

Implement and simulate the following network topology (hosts, links, parameters):



Detailed Instructions

1. Download and unzip the source code for **ns-3** from <http://www.nsnam.org/>.
2. Compile **ns-3**. All the prerequisites needed are already installed on the lab computer.
3. Implement the network as described in the network diagram above.
4. Add **ping** from node 1 to node 3 with the parameters
 - start at 1.0s
 - stop at 10.0s
 - payload size 1024
 - interval 0.2s
 - verboseto the simulation.
5. Generate pcaps (named '**assignment4-A-B.pcap**', where A and B are the identifiers generated by ns3, e.g. '**assignment4-0-1.pcap**') for every net device.

Deliverables

- Report containing a description of the solution, results and output, and explanation of results. Compare your results with what you expected and explain deviations.
- ZIP-archive containing:
 - pcap files.

- File containing the source code of the simulation.

Upload the ZIP-archive to **tuwel** (*Validate Result*) and the report to **tuwel**.

Hints:

- Have a look at the tutorial at <http://www.nsnam.org/>.
- Look at examples in the examples directory of **ns-3**.
- The **tuwel** course contains a L^AT_EX-template for writing the report.