

Steps:

1. `chmod +x myscript` // Changing permission of the script
2. `./myscript` // Execute the script

Files:

1. `*/ns3/ns-allinone-3.25/ns-3.25/myscript` // Script file
2. `*/ns3/ns-allinone-3.25/ns-3.25/scratch/source_code.cc` // Source code
3. `*/ns3/ns-allinone-3.25/ns-3.25/cpp_script.cpp` // cpp-file
4. `*/ns3/ns-allinone-3.25/ns-3.25/all_in_one_plt.plt` // gnuplot plt file

Output:

Three .png files namely, Throughput.png, PacketDrop.png and Collision.png containing uplink and downlink in Rts-Cts and w/o Rts-Cts characteristic as per the scenario.

Functionality of Files:

1. `*/ns3/ns-allinone-3.25/ns-3.25/scratch/source_code.cc`
Each simulation appends its results in files `all_sim_<th|drp|col>_<ul|dl>_<wo_|>rts_cts.txt`.
e.g. "all_sim_th_ul_wo_rts_cts.txt" means all simulation results of Uplink Throughput without Rts-Cts scenario.
"all_sim_col_dl_rts_cts.txt" means all simulation results of Downlink Collision of packets in Rts-Cts scenario.
2. `*/ns3/ns-allinone-3.25/ns-3.25/cpp_script.cpp`
Merges all simulation results and calculates the average for each type of flows for each parameter(throughput, collision and dropped packet).
Outputs three temporary files, `throughput_dataSet.txt`, `collision_dataSet.txt` and `drop_dataSet.txt`
3. `*/ns3/ns-allinone-3.25/ns-3.25/all_in_one_plt.plt`
Generates gnuplot using the data-sets created by `cpp_script`.
4. `*/ns3/ns-allinone-3.25/ns-3.25/myscript`
Script executes the file `scratch/source_code.cc` over multiple 'flows' and 'RngRun' and sleeps for appropriate amount of time for the ns3 simulation to complete.
Then, executes `cpp_script` to merge all data's.
Finally, uses gnuplot on `all_in_one_plt.plt` to generate different png-files.

System Requirements:

- ns3.25
- g++ compiler