

Micro Project 4: Use of NS3

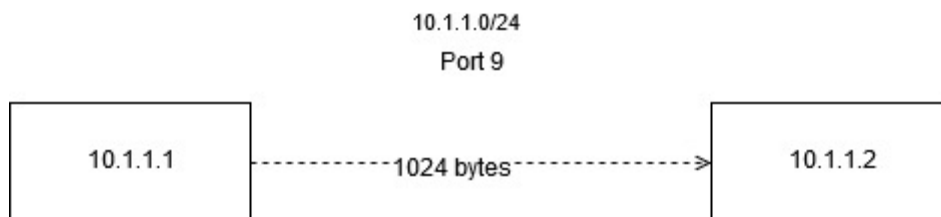
First of all we need to launch the first.cc to simulate a traffic between devices using the same network:

```
nico@nico-VirtualBox:~/Bureau/ns-allinone-3.30.1/ns-3.30.1$ ./waf --run scratch/first
Waf: Entering directory `/home/nico/Bureau/ns-allinone-3.30.1/ns-3.30.1/build'
Waf: Leaving directory `/home/nico/Bureau/ns-allinone-3.30.1/ns-3.30.1/build'
Build commands will be stored in build/compile_commands.json
'build' finished successfully (3.686s)
AnimationInterface WARNING:Node:0 Does not have a mobility model. Use SetConstantPosition if it is stationary
AnimationInterface WARNING:Node:1 Does not have a mobility model. Use SetConstantPosition if it is stationary
AnimationInterface WARNING:Node:0 Does not have a mobility model. Use SetConstantPosition if it is stationary
AnimationInterface WARNING:Node:1 Does not have a mobility model. Use SetConstantPosition if it is stationary
At time 2s client sent 1024 bytes to 10.1.1.2 port 9
At time 2.00369s server received 1024 bytes from 10.1.1.1 port 49153
At time 2.00369s server sent 1024 bytes to 10.1.1.1 port 49153
At time 2.00737s client received 1024 bytes from 10.1.1.2 port 9
```

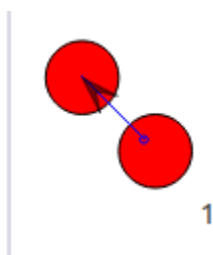
Configuration :

```
address.SetBase ("10.1.1.0", "255.255.255.0");
echoClient.SetAttribute ("MaxPackets", UintegerValue (1));
echoClient.SetAttribute ("Interval", TimeValue (Seconds (1.0)));
echoClient.SetAttribute ("PacketSize", UintegerValue (1024));
```

Traffic between two devices: 10.1.1.1 and 10.1.1.2 :



Netanim is a tool to obtain graphic interfaces while simulating with NS3. First of all we need to initialize two nodes on the interface, then, after the simulation, we will obtain a xml file with the configuration of each node.



Node:0
IP: 10.1.1.1
127.0.0.1
IPv6: ::1
MAC: 00:00:00:00:00:01
Other Node:1
Other Node IP:10.1.1.2
Other Node MAC: 00:00:00:00:00:02
Info:

Node:0
IP: 10.1.1.1
127.0.0.1
IPv6: ::1
MAC:

Node:1
IP: 10.1.1.2
127.0.0.1
IPv6: ::1
MAC: 00:00:00:00:00:02
Other Node:0
Other Node IP:10.1.1.1
Other Node MAC: 00:00:00:00:00:01
Info:

Node:1
IP: 10.1.1.2
127.0.0.1
IPv6: ::1
MAC: