# Installation and Configuration (Ref: 01, 02)

### **Installing ns-3**

- sudo apt-get install gcc g++ python
- sudo apt-get install mercurial
- cd
- mkdir repos
- cd repos
- hg clone <a href="http://code.nsnam.org/ns-3-allinone">http://code.nsnam.org/ns-3-allinone</a>
- cd ns-3-allinone
- ./download.py
- ./build.py --enable-examples --enable-tests
- cd ns-3-dev
- ./test.py -c core
- ./waf --run hello-simulator

### Running the first script

- \$ ./waf --run examples/tutorial/first
- \$ vim examples/tutorial/first.cc

## **Configuring NetAnim**

- cd repos/nes-3-allinone/
- cd netanim
- make clean
- qmake NetAnim.pro
- make

Now your NetAnim is ready to use. For adding ns3 to your program, do the following:

- Add the header file include "ns3/netanim-module.h"
- Add the following statement before Simulation::Run() AnimationInterfaceanim ("animation.xml");
- Set give positions to your nodes. anim.SetConstantPosition (node, double x, double y);

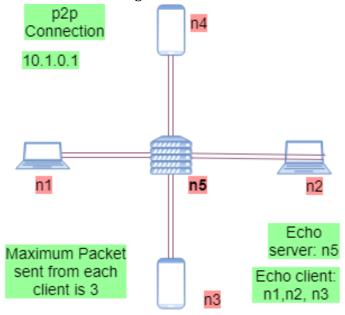
#### Example codes

- The Library
- First.cc: Explanation
- <u>Second.cc</u>: <u>Explanation</u>
- Third.cc

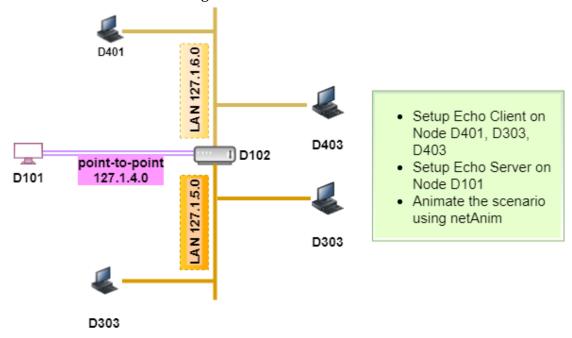
## You have already done

- First of all, you should properly install the ns-3 and configured NetAnim.
- After that, gain a complete understanding on the above mentioned sample codes. You should also be able to make, necessary print statements.
- Then create the given network in each example codes in netAnim& animate the overall data transfer operation.

1. We are proposing a simple extension of the First sample code. Implement following network scenario and animate using netAnim.



2. Again, we are proposing a simple extension of the First sample code. Implement following network scenario and animate using netAnim.



**Bonus:** As you have already understood Thrid.cc, add some more wifi & LAN network with it.