Install GNS3 for Windows

Contents

1 Objective

You are going to install the GNS3 network simulator that will run on your local machine, but which we will configure to talk to a running dynamips instance on your workshop server. In this manner you will have a graphical interface available to view the real-time status of your virtual network and to manipulate routers and switches.

http://www.gns3.net/download/

2 Installing GNS3

You can always find the GNS3 Windows installation program at:

`http://www.gns3.net/download/`

We provide a local copy to make copying of the installer faster. You should download the file GNS3-0.8.3.1-all-in-one.exe by going to:

`http://wsnoc.nsrc.org/downloads/`

Once the file is download run it to install the various GNS components:

- Dynamips
- Qemu/Pemu
- Putty
- VPCS (Virtual PC Simulator)
- WinPCAP
- Wireshark

The installer includes both 32-bit and 64-bit versions.

When you run the GNS3 installer you can select defaults for all of the installation screens. The installer runs several separate installers and may take a few minutes to complete.

2.1 First time you run GNS3

You can click on OK from the initial GNS3 startup dialogue that tells you to configure various items. In addion do not say "Yes" to updating the GNS3 version to 0.8.6x as there seems to be a problem with this version and our configuration.

We suggest you close GNS3 now as you will be starting it again shortly.

3 Set up folders and files to run GNS3

- On your Desktop create a folder called GNS3
- Inside this folder create two folders:
- NMM
- CND

Now go to the Git repositories web interface on nocws.nsrc.org to log in and download two routers.net files. Go to:

`http://wsnoc.nsrc.org:8000`

Username and password are:

```
Username: trainers
password: <CLASS_PASSWORD>
```

Now download the following routers.net file to the GNS3/NMM directory on your desktop:

`http://wsnoc.nsrc.org:8000/nsrc/workshop-kit/blob/master/conf/dynagen/nmm/routers.net`

You may find that you have to manually copy and paste the contents of the file in to a file on your local machine.

Next download the following routers.net file to the GNS3/CND directory on your desktop

`http://wsnoc.nsrc.org:8000/nsrc/workshop-kit/blob/master/conf/dynagen/cnd/routers.net`

You may find that you have to manually copy and paste the contents of the file in to a file on your local machine.

Next edit the file:

`GNS3/NMM/routers.net`

and comment out the line that reads:

`workingdir = /home/nsrc/dynamips/nmm/work`

and change the line:

`[s1.ws.nsrc.org]`

to be:

`[localhost]`

and change the line that reads:

`image = /home/nsrc/binary-images/...`

to read:

`image = ...`

Now you are ready to run GNS3 on your machine.

4   Run GNS3 locally on your machine

Open the GNS3/NMM folder on your desktop and double-click on the routers.net file.

You should see GNS3 start and it will present you with a few routers and a simple network topology. You can right click on the routers to view more information, open consoles, etc..

5   Run GNS3 locally and view a dynamips configuration running remotely.

For this exercise only one person can do this at a time in your group.

First, on your workshop server be sure of the following:

- dynamips is running
- dynagen is *not* running

Now go to the GNS3/CND folder on your desktop and double-click on the routers.net file. You may need to close your prior GNS3 session first before doing this.

This may take a minute to complete loading but you now you will see the complete set of network devices for the Campus Network Design workshop up and running in your local GNS3 instance. The actual work, however, is being done on the remote s1.ws.nsrc.org workshop server!

You'll notice that the devices map is a big blob of items. If you'd like to see a nicely formatted version of this (one that we have updated and saved out) first stop GNS3, then download the file:

`http://wsnoc.nsrc.org:8000/nsrc/workshop-kit/blob/master/conf/dynagen/cnd/routers-gns3.net`

to your GNS3/CND directory.

And, then, double click on this file to see how things look.

You can play with the devices the same as in the previous section.