

Download and Installation of NS-2 in a Linux/UNIX environment

NS2 is a network simulator program; it is freely available on the internet to download for academic research purpose. NS2 can be compiled and run both in a UNIX and under Cygwin for windows environment. It is an important to note that NS2 is fairly large and requires around 300 MB hard disk space for installation. In order to run and install NS2 you need a PC with a C++ compiler and UNIX operation system (FreeBSD, Linux, SunOS, or Solaris).

NS-2 can be obtained in two formats, one is **All-at-once** and other one is **From-all-the-pieces**.

All-at-once – It is the easy way to quick download and install the ns2. Latest version can download from the following link by using any web browser.

<http://www.isi.edu/nsnam/ns/ns-build.html#allinone>

<http://sourceforge.net/projects/nsnam/files/allinone/ns-allinone-2.34/>

This [ns-allinone-2.34.tar.gz](#) contains all necessary components and some other optional components for running ns. I would suggest who hasn't installed NS-2 previously would be better to get the Ns allinone package and install it.

From-all-the-pieces – It's really tough to find the required package commencing from-all-the-pieces and its installation. You can download ns2all- the-pieces from the below web-link: <http://www.isi.edu/nsnam/ns/ns-build.html#pieces>

How to install NS-2 in a Linux/UNIX environment

It is more easy to install NS2 in Linux than the window OS. Following are the steps for installation of ns-allinone-2.34 on Fedora Core /Linux environment.

After downloading [ns-allinone-2.34.tar.gz](#)

User must login as a root user for installing ns2 in Linux

- 1) Copy the ns-allinone-2.34.tar.gz folder in user/opt directory.
- 2) Open the terminal and go in user/opt directory. Give ls command.

3) You will see that ns-allinone-2.34 folder is in zip format, give the following command

```
tar -xzvf ns-allinone-2.34.tar.gz
```

(extracting files where; x = extract, z = unzip, v = validate , f = file)

4) This will extract in a folder name ns-allinone-2.34,
go in user /opt/ ns-allinone-2.34 folder and type the following command

```
./install
```

(Now installation process will start)

5) After the installation process is over, set the following paths in **.bashrc** file in /root directory (Use any editor e.g.: vi editor)

```
# .bashrc
```

```
export NS=/ user/opt /ns-allinone-2.34/
```

```
export PATH=$PATH:$NS/tcl8.4.18/unix:$NS/tk8.4.18/unix:$NS/xgraph-12.1
```

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$NS/otcl1.13:$NS/lib:/usr/local/lib
```

```
export TCL_LIBRARY=$TCL_LIBRARY:$NS:/tcl8.4.18/library
```

```
export PATH=$PATH:/ user/opt /ns-allinone-2.34/otcl-1.13/
```

6) How to validate ns2 installation: Exit all the terminals and open new terminal, go to user/opt/ns-allinone-2.34 /ns-2.34 and then give the following command

```
./validate
```

(This will take about 25-30 minutes for validation)

7) After the validate is over...reboot your system.

8) How to run NS2: First you open a terminal in Linux and type the command **ns** It will show you % , it means NS2 is installed and working properly.

9) How to run NAM: Open a terminal window and type **nam**, this will open NAM Animator.