# Install NS 2.35 on Ubuntu 14.04

❖ **Install Ubuntu 14.04 on VirtualBox in Windows 7**
https://www.youtube.com/watch?v=CkDd6jClqEE

❖ **Install ns2.35 on Ubuntu 14.04 with LTE patch**
http://www.linuxquestions.org/questions/showthread.php?p=5385543#post5385543

**Step by step installing process for ns2.35 in ubuntu 14.04.02?**

```
$ sudo apt-get install g++ autoconf libtool libxmu-dev xgraph


In /home/<username>/ns2/ :
$ tar xvf ns-allinone-2.35_gcc482.tar.gz
$ cd ns-allinone-2.35/
$ patch -p0 < LTE-ns235_2014-2.patch
$ ./install
$ cd ns-2.35/
$ sudo make install
('make install' will copy the executable 'ns' to /usr/local/bin/)
$ cp ns ns235-lte ( This is your "ns backup" )
$ sudo cp ns235-lte /usr/local/bin/
$ cd ../nam-1.15/
$ sudo make install


The folder with the simulation examples can have any location in
/home/<username>/(ns2)/.
$ cd lte-ex_06.14/
$ ns235-lte bic1.tcl
```

❖ **To Setup Internet connection on Ubuntu 14.04:**
```
1. From Virtual Machine----> Settings---->
      Network---->Attached To---->NAT: Cable Connected (Tick OK)
2. Select Ethernet Connection and Edit connection
3. Device MAC ID: 08:00:27:F6:02:37
4. IPv4---->Automatic (DHCP)
5. IPv6---->Automatic
6. Open Firefox:
7. Click three horizontal bar
   (right side)→Preferences→Network→Connection→Settings→Auto-detect
   proxy settings for the network→Save.
```

# NS2 INSTALLATION ON LINUX

**1)** Download **'ns-allinone-2.35'** from :
http://sourceforge.net/projects/nsnam/files/allinone/ns-allinone-2.35/ns-allinone-2.35.tar.gz/download

**2)** Extract the downloaded zip file 'ns-allinone-2.35.tar.gz file' to desktop.

**3)** Now you need to download some essential packages for ns2,these packages can be downloaded by using the following command : **applications>accessories>terminal or dashhome>trminal**
then type the below line on the terminal window

"sudo apt-get install build-essential autoconf automake libxmu-dev libtool gcc"

or type this command

"sudo apt-get install autoconf automake gcc g++ build-essential libxmu-dev libtool libxt-dev"

**4)** Now change your directory(here i have already extracted the downloaded files to desktop,so my location is desktop) type the following codes in the command window to install NS2.

cd Desktop
cd ns-allinone-2.35
./install

**The installation procedure will take a few minutes..........**

**5)** After compleating the installation type the following command in the command window

gedit ~/.bashrc

**6)** Now an editor window appears,please copy and paste the follwing codes in the end of the text file (note that '/home/abhiram/Desktop/ns-allinone-2.35/octl-1.14' in each line in the below code should be replaced with your location where the 'ns-allinone-2.35.tar.gz'file is extracted)

```
# LD_LIBRARY_PATH
OTCL_LIB=/home/abhiram/Desktop/ns-allinone-2.35/otcl-1.14
NS2_LIB=/home/abhiram/Desktop/ns-allinone-2.35/lib
X11_LIB=/usr/X11R6/lib
USR_LOCAL_LIB=/usr/local/lib
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$OTCL_LIB:$NS2_LIB:$X11_LIB:$USR_LOCAL_LIB

# TCL_LIBRARY
TCL_LIB=/home/abhiram/Desktop/ns-allinone-2.35/tcl8.5.10/library
USR_LIB=/usr/lib
export TCL_LIBRARY=$TCL_LIB:$USR_LIB

# PATH
XGRAPH=/home/abhiram/Desktop/ns-allinone-2.35/bin:/home/abhiram/Desktop/ns-allinone-2.35/tcl8.5.10/unix:/home/abhiram/Desktop/ns-allinone-2.35/tk8.5.10/unix
NS=/home/abhiram/Desktop/ns-allinone-2.35/ns-2.35/
NAM=/home/abhiram/Desktop/ns-allinone-2.35/nam-1.15/
PATH=$PATH:$XGRAPH:$NS:$NAM
```

**7)** Save and close the text editor and then type the following command on the terminal

                        source ~/.bashrc

**8)** Close the terminal window and start a new terminal window and now change the directory to ns-2.35 and validate ns-2.35 by exicuting the following command ( it takes 30 to 45 minutes)

                        cd ns-2.35
                        ./validate

**9)** If the installation is successful, then you will be able to see **%** at the command prompt while typing the following command

                        ns

**10)** Now type

                        exit