Tarball Sources

1. trafsim.tar.gz : Traffic Simulator
2. curl-7.16.0.tar.gz: Curl library
3. xerces-c-current.tar.gz: Xercesc XML Parser library
4. gsl-1.8.tar.gz: GNU Scientific Library
5. www.tar: HTML Files of various sizes (1 kB – 100 kB only provided)

Build Instructions

1. GNU Scientific library

$ tar xvfz gsl-1.8.tar.gz

$ cd gsl-1.8/

$ ./configure

$ make

$ make install (Make sure you are “root” to run this command)

2. Curl library

$ tar xvfz curl-7.16.0.tar.gz

$ cd curl-7.16.0/

$ ./configure

$ make

$ make install (Make sure you are “root” to run this command)

3. Xercesc XML Parser library

$ tar xvfz xerces-c-current.tar.gz:

$ cd xerces-c-src_2_7_0/

$ export XERCESCROOT=/home/aircell/xerces-c-src_2_7_0/
(or wherever xercesc is installed)

$ echo $ XERCESCROOT (verify if correctly initialized)

$ cd src/xercesc/

$ autoconf

$ ./runConfigure –plinux –cgcc –xg++ -minmem –nsocket –tnative –rpthread

$ gmake

$ gmake install (Make sure you are “root” to do this)

4. Traffic Simulator

Make sure you have all the libraries installed prior to building the Simulator.

$ cd /home/aircell/ (for a user called “aircell”)

$ tar xvfz trafsim.tar.gz

$ cd trafsim/

$ make

$ . ./env.sh

The above commands sets the environment variable LD_LIBRARY_PATH. Make sure that the libraries paths are correct.

$ ./Simulator

Run simulator without any options to run the default scenario (Scenario 1) from the config.xml file.

Running with options:

$ ./Simulator --help

Displays the help with all available command line options

$ ./Simulator –n 10 –t 60 –h 0.85 –r 40

Runs the simulator with 10 users (-n), Hurst parameter 0.85 (-h), data rate per user of 40 kbps (-r) and for a duration of 60 seconds (-t).

Run the Simulator with "–t 0" option for an infinite duration run and terminate using Ctrl-C whenever desired. The same could be specified in the configuration file (config.xml) by setting "SIM_DURATION" value to 0 (infinite run).

$ ./Simulator –a 192.168.1.7/data/

Run the simulator with –a option specifying the exact location of the web files on the destination web server.

5. HTTP Files

$ cp www.tar /var/www/html/

(This is the default Apache location for storing web pages under Fedora Linux)

$ cd /var/www/html/

$ tar xvfz www.tar.gz

This creates a directory called " /data" containing the HTTP files.