Documentation for TRex

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Abstract

The following contain the documentation for TReX from Cisco. TRex is a packet generator which works on DPDK.

I. Materials

1) Manual:
   https://trex-tgn.cisco.com/trex/doc/trex_vm_manual.html
   Note that the links in the page in 1 do not have https:// as a prefix which will give you connection timed out error. Please add the prefix to avoid seeing the Problem Loading page.
2) Book:
   https://trex-tgn.cisco.com/trex/doc/trex_book.pdf
3) Tutorial is available at:
   CISCO LIVE: https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2017/pdf/DEVNET-2568.pdf
   Random Guy: https://tawmio.com/2019/07/08/trex-ciscos-stateful-stateless-traffic-generator/
4) Sample router configuration tutorial is available at
   https://trex-tgn.cisco.com/trex/doc/trex_config_guide.html
5) Github repo for GUI:
   stateful: https://github.com/exalt-tech/trex-stateful-gui/blob/features/bassam/infrastructure/README.md
   stateless: https://github.com/cisco-system-traffic-generator/trex-stateless-gui
6) Installation:
   https://github.com/cisco-system-traffic-generator/trex-core
   https://github.com/cisco-system-traffic-generator/trex-core/wiki
7) Faq:
   https://trex-tgn.cisco.com/trex/doc/trex_faq.html

II. How to Install and run TRex

1) Download ubuntu20.0 server (without the GUI) and install it in your Oracle Virtual Box
2) The screen resolution will be low for the CLI so install virtual box Ubuntu guest utilities by running the below command

```
sudo apt-get install virtualbox-guest-utils
virtualbox-guest-x11 virtualbox-guest-dkms
```

You will be able to see Display settings when you press right click on the screen to change the screen resolution or you could also go to Oracle Dialogue box and View → Virtual Screen 1 → 1024 × 768

3) Remember gnome-terminal won't be available so none of the applications that you can see in the GUI will of any use. So press

   `CTL+ALT+F3`

   to shift to CLI mode and run

   `sudo apt install gnome-terminal`

4) Press

   `CTL+ALT+F2`

   to revert back to GUI and press

   `CTL+ALT+T`

   to start a terminal.

5) Use the following link to explore TRex
   https://trex-tgn.cisco.com/trex/doc/trex_vm_manual.html

6) Go to virtualbox → settings → network change NAT to bridged adapter (I kept Qualcomm)

7) The T-rex gui given in the documentation doesn't work. If we google T-rex gui we will obtain t-rex-stateless-gui which can only work in stateless mode. So run the following command

   `sudo docker run --rm -it --privileged --cap-add=ALL -p 4500:4500 -p 4501:4501 -p 4507:`

   within the interactive bash run the stateless version without the configuration file which ensures t-rex to run stateless

   `sudo ./t-rex-64 -i`

8) Go to the T-rex-stateless-gui and connect to the ip address of the virtualbox which can be pinged.
   This can be found by 'ifconfig'