Online installation guides

https://github.com/mtcp-stack/mtcp/blob/master/README.md

1 System Info

A. Linux turing-04 **4.15.0-29-generic** #31~16.04.1-Ubuntu SMP Wed Jul 18 08:54:04 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux

B. Hyperthreading is turned off so 24 cores only

C. NUMA installation

2 Installation

A. sudo apt-get install libnuma-dev
B. sudo apt-get install libpcap-dev
C. sudo apt install libgmp
D. Sudo apt install libelf-dev
E. Sudo apt install build-essentials
F. Sudo apt install autoconf
G. (Optional) apt-get install linux-headers-$(uname -r)

(Downloading DPDK and installation)
(https://github.com/mtcp-stack/mtcp)

Sudo apt install git

- Mkdir mtcp_dpdk
- Cd mtcp_dpdk
- Git clone https://github.com/mtcp-stack/mtcp.git
- git submodule init
- git submodule update
- **./setup_mtcp_dpdk_env.sh**
    - **Press [14] to compile x86_64-native-linuxapp-gcc version**
    - **Press [17] to install the driver**
    - **Press [21] to setup 2048 2MB hugepages**
    - **Press [23] to register the Ethernet ports**
    - **Press [34] to quit the tool**

set RTE_SDK and RTE_TARGET environment variables.

- `sudo ifconfig dpdk0 x.x.x.x netmask 255.255.255.0 up`

- `export RTE_SDK=`echo $PWD`/dpdk`
- `export RTE_TARGET=x86_64-native-linuxapp-gcc`

Setup mtcp library

- `./configure --with-dpdk-lib=$RTE_SDK/$RTE_TARGET CFLAGS="-DMAX_CPUS=24"`
- `make`

To revert back changes ..

- `./setup_linux_env.sh`
    - Press [29] to unbind the Ethernet ports
    - Press [30] to remove igb_uio.ko driver
    - Press [33] to remove hugepage mappings
    - Press [34] to quit the tool

To check :

- **Cd /apps/examples**
- **Run epserver and epwget**
- **./epserver -p /home/notav/www -f epserver.conf -N 8**
- **./epwget 192.168.100.17/example.txt 10000000 -N 8 -c 8000 -f epwget.conf**

to find whether NUMA or NON NUMA

- **`dmesg | grep -i numa`**
- **If non numa -> `No NUMA configuration found`**
- **If numa -> `NUMA: Initialized distance table, cnt=8`**

OR

- **Sudo apt install numactl**
- **Numactl --hardware**

if mtcp installed in a particular kernel version then it should be booted for mtcp working
Grub configuration should be made such that it should defaultly load that kernel

- **Sudo vim /etc/default/grub**
- **GRUB_DEFAULT="Advanced options for Ubuntu>Ubuntu, with Linux 4.15.0-29-generic"**
- **Sudo update-grub**
- **Sudo reboot**