## Тестирование ИТП4

Время проведения теста: Fri Mar 2 13:45:27 MSK 2018

### Тестирование коэффициента использования канала (ИТП4-а)

dd if=/dev/urandom of=data/test\_rand.dat bs=10M count=4

2+0 records in

2+0 records out

20971520 bytes (21 MB) copied, 0.126616 s, 166 MB/s

(echo " in ping out -c 5 "; echo " iperf in out "; echo " in curl -o /dev/null http://10.0.0.2:8000/test\_rand.dat "; sleep 1; echo " quit "; sleep 2) | stdbuf -o0 -e0 python mininet-qnet-tap.py defaults\_1.yaml single-host-udp.yaml h1 2>&1 | python makeword.py -c CodeStyle -f $filenamedocx

Creating controller: c0

Running pre-script python /root/qnet/mininet-qnet/run\_daemon.py start kw1 /root/qnet/src/keyworker/keyworker -p 55550 -n kw1/kw1.db

Running pre-script python /root/qnet/mininet-qnet/run\_daemon.py start kw2 /root/qnet/src/keyworker/keyworker -p 55551 -n kw2/kw2.db

Running pre-script python /root/qnet/mininet-qnet/run\_daemon.py start ct1 /root/qnet/src/nextctapudp/ctapudp -s 0.0.0.0 -p 1001 -t 10.0.1.2 -k 1000 -q 127.0.0.1 -r 55550 -i tap0 -e 1000 -a 1

Running pre-script python /root/qnet/mininet-qnet/run\_daemon.py start ct2 /root/qnet/src/nextctapudp/ctapudp -c 0.0.0.0 -p 1000 -t 10.0.1.1 -k 1001 -q 127.0.0.1 -r 55551 -i tap1 -e 1000 -a 1

\*\*\* Checking tap0

\*\*\* Checking tap1

(100.00Mbit 0ms delay 0.00000% loss) (100.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) \*\*\* Linking vh1 s1 tap0

(1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) \*\*\* Linking vh2 s2 tap1

(1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) \*\*\* Configuring hosts

in (cfs -1/100000us) out (cfs -1/100000us) vhwrong (cfs -1/100000us) vh1 (cfs -1/100000us) vh2 (cfs -1/100000us)

\*\*\* Starting controller

c0

\*\*\* Starting 4 switches

s1 (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) s2 (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) s11 (100.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) s12 (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) ...(1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) (1000.00Mbit 1ms delay 0.00000% loss) (100.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss) (10.00Mbit 4ms delay 0.00000% loss) (10.00Mbit 0ms delay 0.00000% loss)

Running post-script cd /root/qnet/mininet-qnet-tap/data; python /root/qnet/mininet-qnet/run\_daemon.py start httpd-out python -m SimpleHTTPServer 8000

\*\*\* Starting CLI:

mininet> PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp\_seq=1 ttl=64 time=41.5 ms

64 bytes from 10.0.0.2: icmp\_seq=2 ttl=64 time=16.7 ms

64 bytes from 10.0.0.2: icmp\_seq=3 ttl=64 time=16.5 ms

64 bytes from 10.0.0.2: icmp\_seq=4 ttl=64 time=16.5 ms

64 bytes from 10.0.0.2: icmp\_seq=5 ttl=64 time=16.4 ms

--- 10.0.0.2 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4006ms

rtt min/avg/max/mdev = 16.419/21.559/41.546/9.994 ms

mininet> \*\*\* Iperf: testing TCP bandwidth between in and out

\*\*\* Results: ['9.32 Mbits/sec', '9.99 Mbits/sec']

mininet> % Total % Received % Xferd Average Speed Time Time Time Current

Dload Upload Total Spent Left Speed

0 0 0 0 0 0 0 0 --:--:-- --:--:-- --:--:-- 0  
 1 20.0M 1 213k 0 0 883k 0 0:00:23 --:--:-- 0:00:23 881k  
 6 20.0M 6 1336k 0 0 1076k 0 0:00:19 0:00:01 0:00:18 1075k  
 12 20.0M 12 2474k 0 0 1104k 0 0:00:18 0:00:02 0:00:16 1104k  
 17 20.0M 17 3614k 0 0 1114k 0 0:00:18 0:00:03 0:00:15 1114k  
 23 20.0M 23 4752k 0 0 1120k 0 0:00:18 0:00:04 0:00:14 1120k  
 28 20.0M 28 5892k 0 0 1124k 0 0:00:18 0:00:05 0:00:13 1135k  
 34 20.0M 34 7030k 0 0 1126k 0 0:00:18 0:00:06 0:00:12 1138k  
 39 20.0M 39 8168k 0 0 1128k 0 0:00:18 0:00:07 0:00:11 1138k  
 45 20.0M 45 9308k 0 0 1129k 0 0:00:18 0:00:08 0:00:10 1138k  
 51 20.0M 51 10.2M 0 0 1130k 0 0:00:18 0:00:09 0:00:09 1138k  
 56 20.0M 56 11.3M 0 0 1131k 0 0:00:18 0:00:10 0:00:08 1138k  
 62 20.0M 62 12.4M 0 0 1131k 0 0:00:18 0:00:11 0:00:07 1138k  
 67 20.0M 67 13.5M 0 0 1132k 0 0:00:18 0:00:12 0:00:06 1138k  
 72 20.0M 72 14.5M 0 0 1120k 0 0:00:18 0:00:13 0:00:05 1106k  
 78 20.0M 78 15.7M 0 0 1133k 0 0:00:18 0:00:14 0:00:04 1138k  
 84 20.0M 84 16.8M 0 0 1133k 0 0:00:18 0:00:15 0:00:03 1138k  
 89 20.0M 89 17.8M 0 0 1124k 0 0:00:18 0:00:16 0:00:02 1106k  
 95 20.0M 95 19.0M 0 0 1134k 0 0:00:18 0:00:17 0:00:01 1138k  
100 20.0M 100 20.0M 0 0 1134k 0 0:00:18 0:00:18 --:--:-- 1173k

mininet> python /root/qnet/mininet-qnet/run\_daemon.py stop kw1

python /root/qnet/mininet-qnet/run\_daemon.py stop kw2

python /root/qnet/mininet-qnet/run\_daemon.py stop ct1

python /root/qnet/mininet-qnet/run\_daemon.py stop ct2

python /root/qnet/mininet-qnet/run\_daemon.py stop httpd-out

\*\*\* Stopping 1 controllers

c0

\*\*\* Stopping 9 links

.........

\*\*\* Stopping 4 switches

s1 s2 s11 s12

\*\*\* Stopping 5 hosts

in out vhwrong vh1 vh2

\*\*\* Done

Коэффициент использования канала согласно iperf: 93.20%

Коэффициент использования канала согласно curl: 91%