

Zachodniopomorski Uniwersytet Technologiczny w Szczecinie

Network Systems Administration

Report 3

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1- IPref

A- Method

IPref was installed on the Windows10 machine. Localhost network traffic was examined through server mode.

B- Screenshots

```
Command Prompt - iperf3.exe -s
                                                                                                                 П
                                                                                                                          X
  \Users\Sanal Krlk>cd /iperf3
C:\iperf3>iperf3.exe -s
Server listening on 5201
Accepted connection from ::1, port 62065
       local ::1 port 5201 connected to ::1 port 62066
  ID] Interval
                              Transfer Bandwidth
                           sec 310 MBytes 2.60 Gbits/sec
sec 360 MBytes 3.02 Gbits/sec
sec 386 MBytes 3.24 Gbits/sec
sec 373 MBytes 3.13 Gbits/sec
   5]
          0.00-1.00
    5
           1.00-2.00
   5]
5]
5]
5]
          2.00-3.00
          3.00-4.00
                           sec 377 MBytes
sec 356 MBytes
                                                     3.16 Gbits/sec
          4.00-5.00
                                                     2.99 Gbits/sec
          5.00-6.00
                           sec 377 MBytes 3.16 Gbits/sec
sec 385 MBytes 3.23 Gbits/sec
sec 377 MBytes 3.16 Gbits/sec
sec 376 MBytes 3.15 Gbits/sec
           6.00-7.00
           7.00-8.00
    5]
           8.00-9.00
         9.00-10.00 sec 376 MBytes 3.15 Gbits/s
10.00-10.00 sec 0.00 Bytes 0.00 bits/sec
  ID] Interval
                                   Transfer
                                                    Bandwidth
          0.00-10.00 sec 0.00 Bytes 0.00 bits/sec 0.00-10.00 sec 3.59 GBytes 3.08 Gbits/sec
    5]
5]
                                                                                                sender
                                                                                                    receiver
 Server listening on 5201
```

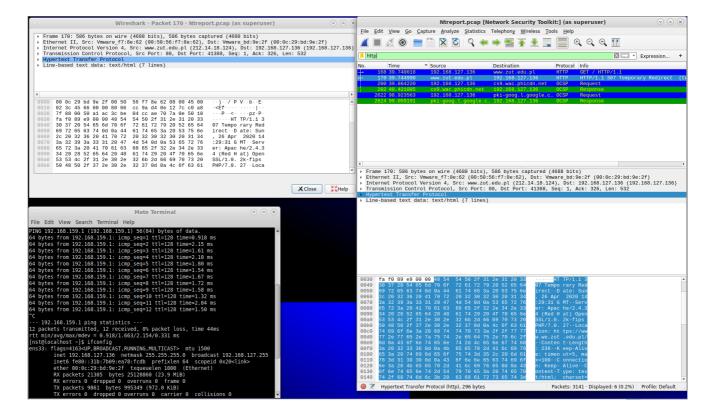
```
Command Prompt
iperf3: error - unable to connect to server: Connection timed out
C:\iperf3>iperf3.exe -c localhost
Connecting to host localhost, port 5201
  4] local ::1 port 62066 connected to ::1 port 5201
ID] Interval Transfer Bandwidth
   4
         0.00-1.00
                       sec 310 MBytes 2.60 Gbits/sec
                       sec 360 MBytes 3.02 Gbits/sec
sec 386 MBytes 3.24 Gbits/sec
         1.00-2.00
         2.00-3.00
                       sec 373 MBytes 3.13 Gbits/sec
sec 377 MBytes 3.16 Gbits/sec
   4
         3.00-4.00
   4]
         4.00-5.00
   4
                               356 MBytes 2.99 Gbits/sec
         5.00-6.00
                               377 MBytes 3.16 Gbits/sec
385 MBytes 3.23 Gbits/sec
         6.00-7.00
                       sec
   4
         7.00-8.00
         8.00-9.00 sec
9.00-10.00 sec
                             377 MBytes 3.17 Gbits/sec
376 MBytes 3.15 Gbits/sec
   4
   4]
  ID] Interval
                               Transfer
                                               Bandwidth
         0.00-10.00 sec 3.59 GBytes 3.08 Gbits/sec 0.00-10.00 sec 3.59 GBytes 3.08 Gbits/sec
                                                                                        sender
                                                                                        receiver
iperf Done.
C:\iperf3>
```

2- Wireshark

A- Method

<u>www.zut.edu.pl</u> web page was visited and the generated network traffic was analyzed with Wireshark software.

B- Screenshot



3- Network Troubleshooting

A- Method

Two different addresses were pinged in order to find out where they were clogged when going to the address to be reached.

B- Screenshots

```
X
Command Prompt
                                                                                                                       Microsoft Windows [Version 10.0.18362.778]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\Sanal Krlk>tracert www.google.com.pl
Tracing route to www.google.com.pl [172.217.19.195]
over a maximum of 30 hops:
                                  2 ms x15304v1270.dschopin.zut.edu.pl [109.69.88.1]
2 ms v10030-z11.zut.edu.pl [212.14.28.69]
          5 ms
                      2 ms
                      2 ms
                                           Request timed out.
                                  2 ms 212.14.0.93
5 ms 212.14.1.130
          2 ms
                      2 ms
                      2 ms
          4 ms
                                 5 ms z-POZMAN.poznan-gw2-amsix.rtr.pionier.gov.pl [212.191.237.237]
22 ms core1.ams.net.google.com [80.249.208.247]
23 ms 108.170.241.193
         5 ms
                     5 ms
        51 ms
                     27 ms
  8
                     22 ms
        23 ms
  9
       177 ms
                                 23 ms 72.14.238.245
23 ms ams16s31-in-f3.1e100.net [172.217.19.195]
                    43 ms
 10
        23 ms
                     23 ms
Trace complete.
C:\Users\Sanal Krlk>
```

```
×
Command Prompt
C:\Users\Sanal Krlk>tracert 192.14.2.1
Tracing route to 192.14.2.1 over a maximum of 30 hops
                          6 ms x15304v1270.dschopin.zut.edu.pl [109.69.88.1]
       2 ms
                 3 ms
                          2 ms
       4 ms
                                vl0030-zl1.zut.edu.pl [212.14.28.69]
                 3 ms
                          *
                                Request timed out.
      37 ms
                50 ms
                         20 ms
                                212.14.0.93
       2 ms
                2 ms
                          3 ms
                                212.14.1.142
 6
                                Request timed out.
                                Request timed out.
                                Request timed out.
 8
 9
                                Request timed out.
                          *
                                Request timed out.
10
11
                                Request timed out.
                                Request timed out.
12
13
                                Request timed out.
                                Request timed out.
14
                                Request timed out.
15
                                Request timed out.
16
                                Request timed out.
17
                                Request timed out.
18
19 ^C
C:\Users\Sanal Krlk>
```