

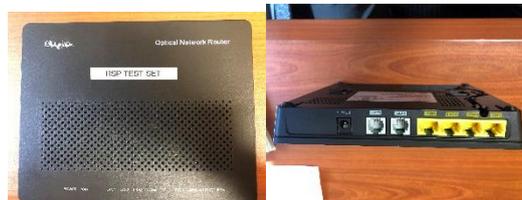
Submission for Speedtest Issue

Please be advised on the following before conducting a speed test.

1. Ensure the speed test connection is a Cat 5e and above ethernet LAN cable



2. Connect the LAN cable shown above directly between the ONR shown below, to the Laptop or Desktop network port.



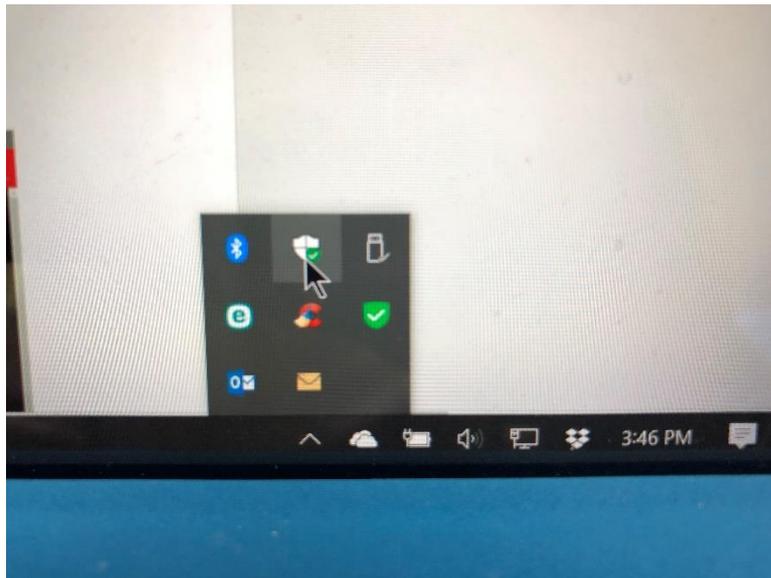
3. Check that the network adaptor is GbE for speed test to be able to reach up to 1Gbps. For more details please refer to (<https://www.whizcomms.com.sg/wp-content/uploads/2018/01/How-to-check-PC-or-Notebook-Network-adapters.pdf>)

Properties

Link speed (Receive/Transmit):	1000/1000 (Mbps)
Link-local IPv6 address:	fe80::aca5:9c91:9867:5398%8
IPv4 address:	10.1.1.213
IPv4 DNS servers:	8.8.8.8 1.1.1.1
Manufacturer:	Realtek
Description:	Realtek USB GbE Family Controller
Driver version:	10.33.419.2019
Physical address (MAC):	00-E0-4C-68-00-CB

Copy

4. Disable firewall, anti-virus and cloud storage software applications. *



5. Disable backend/synchronising processes to reduce as much memory and CPU utilisation as possible before performing speed test. *

Task Manager

File Options View

Processes Performance App history Startup Users Details Services

Name	Status	29% CPU	65% Memory	0% Disk	0% Network	0% GPU	GPU Engine
Apps (6)							
> Microsoft Outlook (32 bit)		0%	85.7 MB	0 MB/s	0.1 Mbps	0%	
> Microsoft Word (32 bit)		0%	113.4 MB	0 MB/s	0 Mbps	0%	
> Microsoft Word (32 bit)		0%	6.5 MB	0 MB/s	0 Mbps	0%	
> Task Manager		1.3%	19.9 MB	0.1 MB/s	0 Mbps	0%	
> WhatsApp (4)		1.7%	240.0 MB	0 MB/s	0 Mbps	0%	
> Windows Explorer		0%	65.8 MB	0 MB/s	0 Mbps	0%	
Background processes (48)							
> Adobe Acrobat Update Service (32 bit)		0%	0.3 MB	0 MB/s	0 Mbps	0%	
Application Frame Host		0%	3.6 MB	0 MB/s	0 Mbps	0%	
CCleaner		0%	1.3 MB	0 MB/s	0 Mbps	0%	
COM Surrogate		0%	2.2 MB	0 MB/s	0 Mbps	0%	
COM Surrogate		0%	1.1 MB	0 MB/s	0 Mbps	0%	
CTF Loader		0%	2.8 MB	0 MB/s	0 Mbps	0%	
Device Association Framework Provider ...		0%	1.7 MB	0 MB/s	0 Mbps	0%	
Dropbox (32 bit)		0%	0.1 MB	0 MB/s	0 Mbps	0%	
Dropbox (32 bit)		0%	0.5 MB	0 MB/s	0 Mbps	0%	
Dropbox (32 bit)		0%	72.6 MB	0 MB/s	0 Mbps	0%	
> Dropbox Service		0%	0.1 MB	0 MB/s	0 Mbps	0%	
ESET Main GUI		0%	0.7 MB	0 MB/s	0 Mbps	0%	
> ESET Service		0%	12.6 MB	0 MB/s	0 Mbps	0%	
FortiClient Logging daemon		0%	2.3 MB	0 MB/s	0 Mbps	0%	
FortiClient Network Access Control		0%	1.6 MB	0 MB/s	0 Mbps	0%	
> FortiClient Scheduler		0%	1.0 MB	0 MB/s	0 Mbps	0%	
FortiClient Settings Service		0%	0.3 MB	0 MB/s	0 Mbps	0%	

⏪ Fewer details

*Processes such as but not limited to:- Windows Defender, AVG, Dropbox, Onedrive, iTunes...etc, utilises a fair percentage of processing power, memory and/or bandwidth to constantly check and synchronise as part of its ongoing tasks.

The purpose of these information is to inform users that many of these day to day applications on the laptop will cause network speed to slow down and that is why speed test result is often lower than intended. Field engineer laptops are “clean” with only the Operating System installed, so its speed test will always hit the benchmark range.

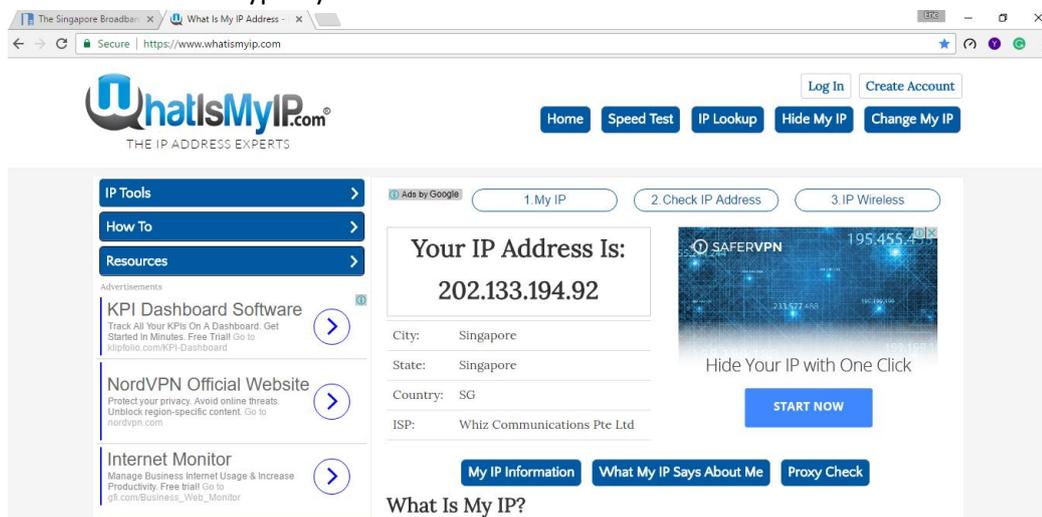
After addressing the abovementioned and upon performing the speed test, it is still very low, please submit the following reports for follow up investigations.

The following documents needed for submission will be:

- 1) Download speedtest application for Windows/MacBook from ookla at <https://www.speedtest.net/apps/desktop>. Please choose the OS version and install the application. Take a screenshot of the speedtest. Please change Server to 'Singtel'.



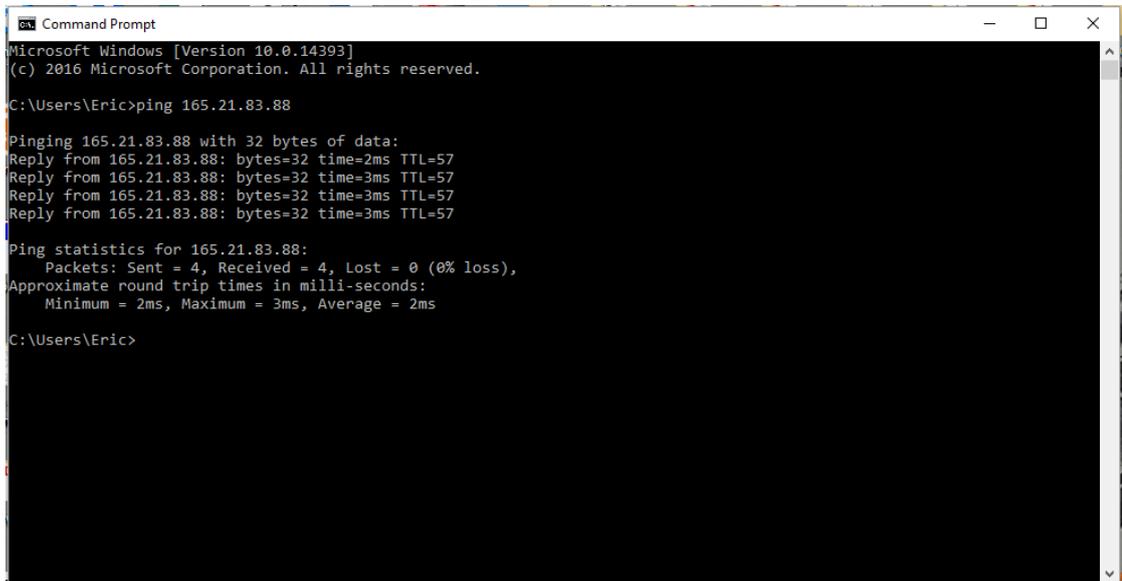
- 2) Screenshot of whatismyproxy.com



Search > CMD prompt and do ping, pathping and tracert as shown below

3) Screenshot of – ping <website domain having issue>

Example: ping www.whizcomms.com.sg



```
Command Prompt
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Eric>ping 165.21.83.88

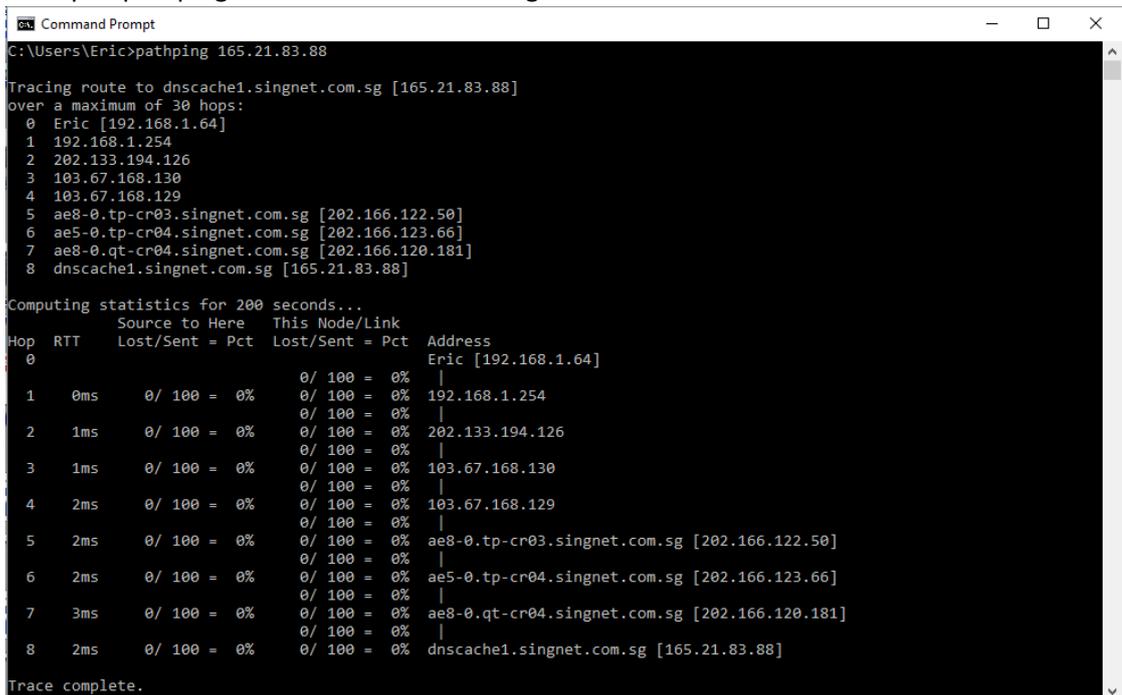
Pinging 165.21.83.88 with 32 bytes of data:
Reply from 165.21.83.88: bytes=32 time=2ms TTL=57
Reply from 165.21.83.88: bytes=32 time=3ms TTL=57
Reply from 165.21.83.88: bytes=32 time=3ms TTL=57
Reply from 165.21.83.88: bytes=32 time=3ms TTL=57

Ping statistics for 165.21.83.88:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 3ms, Average = 2ms

C:\Users\Eric>
```

4) Screenshot of – pathping <website domain having issue>

Example: pathping www.whizcomms.com.sg



```
Command Prompt
C:\Users\Eric>pathping 165.21.83.88

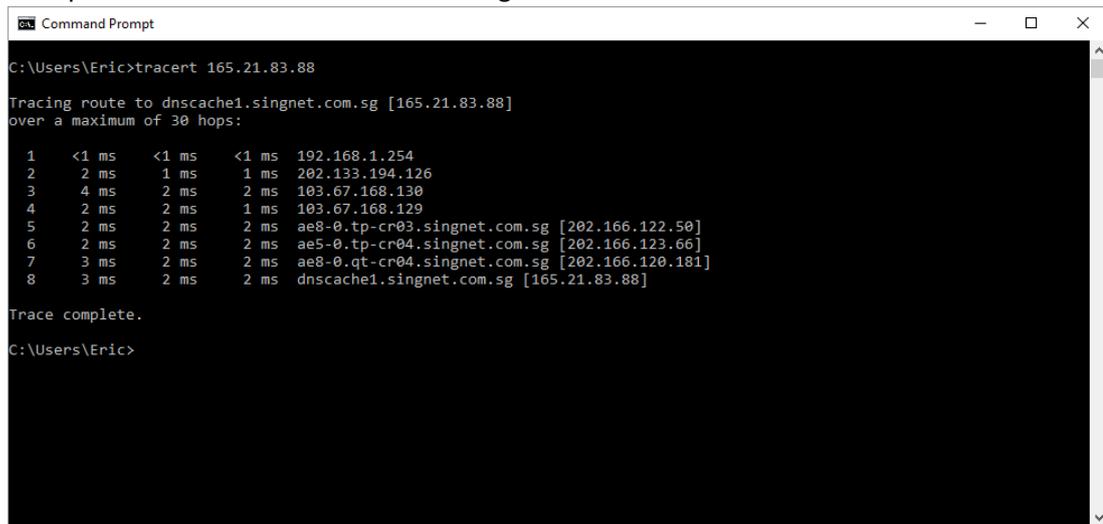
Tracing route to dns-cache1.singnet.com.sg [165.21.83.88]
over a maximum of 30 hops:
  0  Eric [192.168.1.64]
  1  192.168.1.254
  2  202.133.194.126
  3  103.67.168.130
  4  103.67.168.129
  5  ae8-0.tp-cr03.singnet.com.sg [202.166.122.50]
  6  ae5-0.tp-cr04.singnet.com.sg [202.166.123.66]
  7  ae8-0.qt-cr04.singnet.com.sg [202.166.120.181]
  8  dns-cache1.singnet.com.sg [165.21.83.88]

Computing statistics for 200 seconds...
Hop  RTT      Source to Here   This Node/Link   Address
  0      0ms      0/ 100 = 0%     0/ 100 = 0%     Eric [192.168.1.64]
  1      0ms      0/ 100 = 0%     0/ 100 = 0%     192.168.1.254
  2      1ms      0/ 100 = 0%     0/ 100 = 0%     202.133.194.126
  3      1ms      0/ 100 = 0%     0/ 100 = 0%     103.67.168.130
  4      2ms      0/ 100 = 0%     0/ 100 = 0%     103.67.168.129
  5      2ms      0/ 100 = 0%     0/ 100 = 0%     ae8-0.tp-cr03.singnet.com.sg [202.166.122.50]
  6      2ms      0/ 100 = 0%     0/ 100 = 0%     ae5-0.tp-cr04.singnet.com.sg [202.166.123.66]
  7      3ms      0/ 100 = 0%     0/ 100 = 0%     ae8-0.qt-cr04.singnet.com.sg [202.166.120.181]
  8      2ms      0/ 100 = 0%     0/ 100 = 0%     dns-cache1.singnet.com.sg [165.21.83.88]

Trace complete.
```

5) Screenshot of – tracert <website domain having issue>

Example: tracert www.whizcomms.com.sg



```
Command Prompt
C:\Users\Eric>tracert 165.21.83.88

Tracing route to dnscache1.singnet.com.sg [165.21.83.88]
over a maximum of 30 hops:
  0  <1 ms  <1 ms  <1 ms  192.168.1.254
  1  2 ms    1 ms    1 ms    202.133.194.126
  2  4 ms    2 ms    2 ms    103.67.168.130
  3  2 ms    2 ms    1 ms    103.67.168.129
  4  2 ms    2 ms    2 ms    ae8-0.tp-cr03.singnet.com.sg [202.166.122.50]
  5  2 ms    2 ms    2 ms    ae5-0.tp-cr04.singnet.com.sg [202.166.123.66]
  6  3 ms    2 ms    2 ms    ae8-0.qt-cr04.singnet.com.sg [202.166.120.181]
  7  3 ms    2 ms    2 ms    dnscache1.singnet.com.sg [165.21.83.88]

Trace complete.

C:\Users\Eric>
```

Please attached and send to

Email: whiz.info@whizcomms.com.sg