Network Performance Analysis

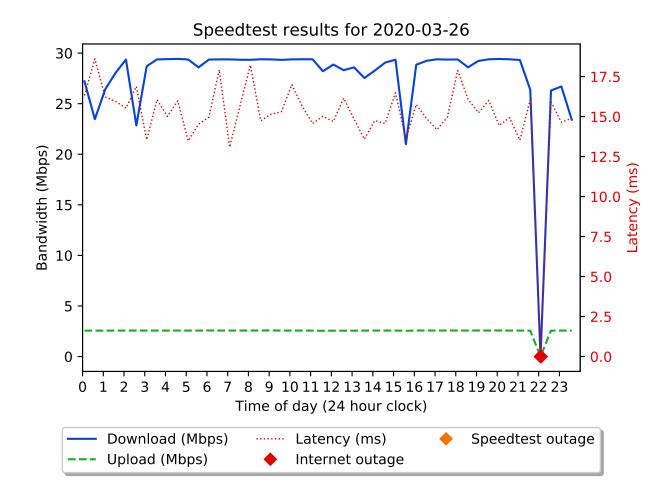
Daily test report for client id f216f253 2020-03-26

1 Internet Service Performance

The main factors that affect your Internet service performance are download / upload speeds, latency, and domain name resolution. The network performance monitor runs various tests periodically thoughout the day to measure these factors, the results of those tests are summarized in the following sections.

1.1 Download / Upload Speeds, Latency, and Internet Outages

This chart plots Internet speedtest results, including the download and upload speeds in megabits per second (Mbps), and the latency (ping) in milliseconds. Keep in mind that these tests are run in parallel with any other Internet communication that may be occurring on your network. Network activity such as large downloads or media streaming sessions will affect these test results.



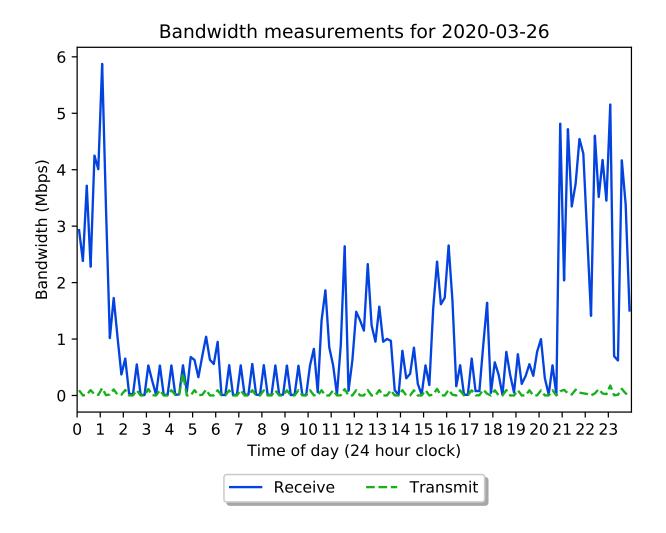
1.2 Data summary

Average download speed: 27.68 Mbps Average upload speed: 2.52 Mbps Average latency: 15.08 ms Internet outages: 4

One or more times during the reporting day an Internet outage was recorded.

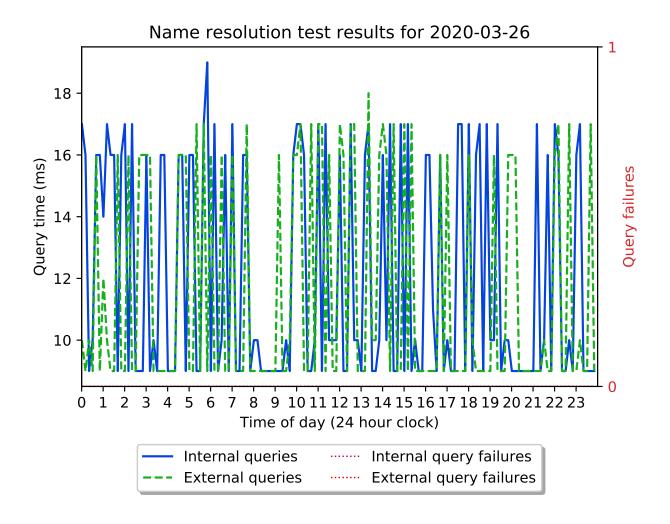
1.3 Bandwidth measurements

The system measures the amount of Internet traffic flowing between your modem and router. It uses the number of bits received and transmitted to calculate bandwidth usage in megabits per second (Mbps). The results of these bandwidth measurements are shown on the chart below. Note that the bandwidth values shown are averaged into 10 minute intervals during the reporting day, so short bandwidth spikes (e.g. loading an image-heavy web page) are averaged into the 10 minute interval during which they occur.



1.4 Domain name resolution

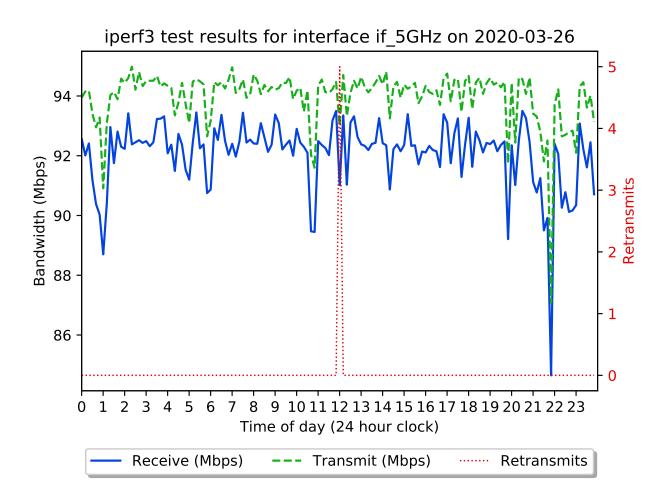
This chart plots the results of domain name resolution tests. The tests including internal DNS queries which use your network's default DNS server (normally this is your ISP's DNS server) and external DNS queries that use public DNS servers such as Google and Cloudflare. Slow DNS queries can make your Internet connection seem slow. Persistent DNS query failures can make your Internet service unreliable.



2 Local Network Performance

The network performance monitor runs periodic tests of local networks using the **iperf3** program. The following charts plot the test results for each network interface (excluding the testing interface).

2.1 Performance information for network interface if 5GHz



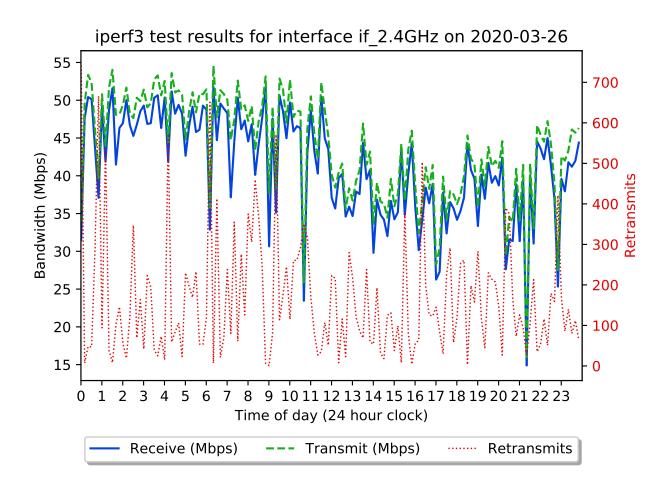
2.2 Data summary

Average receive speed: 92.07 Mbps Average transmit speed: 93.96 Mbps Average retransmits: 0

Average retransmits: 0
Total outage intervals: 0

No outage intervals were recorded during the reporting day.

2.3 Performance information for network interface if 2.4GHz



2.4 Data summary

Average receive speed: 41.33 Mbps Average transmit speed: 43.75 Mbps Average retransmits: 164 Total outage intervals: 0

No outage intervals were recorded during the reporting day.

3 Internet speedtest data

The following table contains the results of all Internet speed tests performed during the reporting day.

Table 1: Speedtest Data

Time	Download Mbps	Upload Mbps	Ping	Remote Host		
00:05	27.21	2.56	16.32	vancouver.speedtest.telus.com:8080		
00:35	23.47	2.57	18.61	vancouver.speedtest.telus.com:8080		
01:05	26.42	2.56	16.23	speedtest.vc.shawcable.net:8080		
01:35	28.05	2.57	15.95	vancouver.speedtest.telus.com:8080		
02:05	29.36	2.57	15.53	speedtest.vc.shawcable.net:8080		
02:35	22.85	2.57	16.89	speedtest.vc.shawcable.net:8080		
03:05	28.7	2.57	13.55	speedtest.vc.shawcable.net:8080		
03:35	29.38	2.57	16.06	vancouver.speedtest.telus.com:8080		
04:05	29.4	2.57	15.01	vancouver.speedtest.telus.com:8080		
04:35	29.43	2.57	15.99	vancouver.speedtest.telus.com:8080		
05:05	29.37	2.57	13.48	vancouver.speedtest.telus.com:8080		
05:35	28.59	2.57	14.53	vancouver2.speedtest.telus.com:8080		
06:05	29.36	2.58	14.96	speedtest.vc.shawcable.net:8080		
06:35	29.38	2.57	17.93	speedtest.vc.shawcable.net:8080		
07:05	29.38	2.57	13.09	vancouver.speedtest.telus.com:8080		
07:35	29.34	2.57	15.67	vancouver2.speedtest.telus.com:8080		
08:05	29.34	2.58	18.23	speedtest.vc.shawcable.net:8080		
08:35	29.39	2.57	14.74	speedtest.vc.shawcable.net:8080		
09:05	29.38	2.59	15.15	speedtest.vc.shawcable.net:8080		
09:35	29.33	2.57	15.31	speedtest.vc.shawcable.net:8080		
10:05	29.38	2.57	17.0	speedtest.vc.shawcable.net:8080		
10:35	29.39	2.57	15.65	vancouver2.speedtest.telus.com:8080		
11:05	29.39	2.57	14.57	vancouver2.speedtest.telus.com:8080		
11:35	28.21	2.55	15.02	vancouver.speedtest.telus.com:8080		
12:05	28.87	2.56	14.69	vancouver.speedtest.telus.com:8080		
12:35	28.31	2.56	16.15	speedtest.vc.shawcable.net:8080		
13:05	28.59	2.56	14.85	vancouver2.speedtest.telus.com:8080		
13:35	27.54	2.57	13.59	vancouver.speedtest.telus.com:8080		
14:05	28.27	2.57	14.75	vancouver.speedtest.telus.com:8080		
14:35	29.06	2.57	14.58	vancouver.speedtest.telus.com:8080		
15:05	29.35	2.57	16.49	vancouver.speedtest.telus.com:8080		
15:35	20.99	2.55	13.6	vancouver.speedtest.telus.com:8080		
16:05	28.85	2.57	15.76	vancouver2.speedtest.telus.com:8080		
16:35	29.24	2.58	14.88	vancouver.speedtest.telus.com:8080		
17:05	29.39	2.57	14.18	vancouver.speedtest.telus.com:8080		
17:35	29.36	2.58	14.97	speedtest.vc.shawcable.net:8080		
18:05	29.37	2.57	17.88	vancouver.speedtest.telus.com:8080		
18:35	28.6	2.57	16.09	vancouver.speedtest.telus.com:8080		
19:05	29.23	2.58	15.24	vancouver2.speedtest.telus.com:8080		
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Table 1 – continued from previous page

Time	Download Mbps	Upload Mbps	Ping	Remote Host
19:35	29.39	2.57	16.01	vancouver.speedtest.telus.com:8080
20:05	29.42	2.58	14.44	vancouver.speedtest.telus.com:8080
20:35	29.39	2.57	14.94	vancouver.speedtest.telus.com:8080
21:05	29.32	2.57	13.53	vancouver.speedtest.telus.com:8080
21:35	26.37	2.56	16.07	speedtest.vc.shawcable.net:8080
22:05	0.0	0.0	0.0	n/a
22:35	26.3	2.56	15.92	vancouver.speedtest.telus.com:8080
23:05	26.7	2.57	14.65	vancouver.speedtest.telus.com:8080
23:35	23.42	2.56	14.9	speedtest.vc.shawcable.net:8080

End of report.