

4/25 10 AM - 12 PM These are 98 test sites that show up on the speedtest.exe software (not from a browser) in the order they are presented.

4/27 11 AM - 12 PM The next 23 tests are from broadbandnow.com. All other local network connections, wired and wireless, were physically disconnected during these tests.

4/29 4:50 PM - 5:00 PM The next 23 tests are from broadbandnow.com. All other local network connections, wired and wireless, were physically disconnected during these tests.

NOTE: 70 TESTS OUT OF TOTAL OF 605 (12%) REACHED THE ADVERTISED SPEEDS OF THE CHARTER/SPECTRUM ULTRA 400Mbps NETWORK CONNECTION

NOTE: AN ADDITIONAL 64 TESTS OUT OF A TOTAL OF 605 (11%) REACHED 80% OF ADVERTISED SPEED OF THE CHARTER/SPECTRUM ULTRA 400Mbps NETWORK CONNECTION

Table with 24 columns: Ping ms, Download Mbps, Upload Mbps, Distance (miles), Ping ms, Download Mbps, Upload Mbps, Distance (miles), Ping ms, Download Mbps, Upload Mbps, Distance (miles), Ping ms, Download Mbps, Upload Mbps, Distance (miles), Ping ms, Download Mbps, Upload Mbps, Distance (miles), Ping ms, Download Mbps, Upload Mbps, Distance (miles). Rows include various ISPs like Renaissance Learning, Marquette-Adams Telephone Cooperative, etc.

98 SPEEDTEST SITE SUBAVERAGES The above subaverages prove that these speedtest.net results are faked by the ISP's and the VPN IDIP address reveals this fact. (Note: upload speed does not change)

OTHER SPEED TESTS (run from a browser) https://speedtest.wifi.com/Area IV, https://www.speedtest.net/speedtest/Chicago (Charter), https://www.broadbandnow.com/speedtest/Chicago (Charter)

Server: nrt-lupul-mba2-e0r02-mba2-cblt-measurement-lab.org Server: nrt-lupul-mba2-e0r02-mba2-cblt-measurement-lab.org Server: nrt-lupul-mba2-e0r02-mba2-cblt-measurement-lab.org

Sparklight WOW! HughesNet Metronet Zigly Fiber Spectrum Google Fiber XFINITY from Comcast Frontier Communications Viastar Internet (formerly Exede) AT&T Internet Mediacom Cable Windstream CenturyLink Cox Communications Grande Communications Verizon FiOS RCN Rise Broadband Measurement Labs only test averages

23 SITE SUBAVERAGE The above subaverages prove that the VPN software is producing a download speed on a wired connection and also what the actual speed is at the ISP. (Note: look at the MLAB Wired tests where download and upload speeds were minimal and upload speeds were mostly unmet by the ISP)

TOTAL AVERAGE 40 330 21 170 51 41 20 TOTAL AVERAGE 157 302 19 175 43 122 19 175 53 60 17

A note from the author: My very first online connection, circa 1988 was with a 2.4kbps dialup connection to the EXECF Bulletin Board System on BBS, in Milwaukee and eventually to Comshare via Radio Shack. Milwaukee and Chicago modem numbers where the speeds were fastest. My very first Internet connection circa 1992 was a 5.6kbps dialup connection via an 800e phone number to Sprint in Seattle and later via CompuServe. My second Internet connection was with the Microsoft Network (MSN) with a fee account as a Windows 95 beta tester via 64/28kbs TDN circa 1995. My third Internet connection was with Wisconsin Bell with a 256kbps DSX connection circa 1998. Over time I have a 400-circuit-dedicated Internet Service Provider or ISP called Bridgetree in Racine, designed and built a Wireless Internet Service Provider or WISP in Racine, connected to the Internet with Peer-to-Peer Agreements, who knows where and when you connect meets the consumer. The long and short of it is that ISPs are using Peer-to-Peer Agreements to establish intranets for internet self-testing and FCC self-reporting via FCC form 477. My own ISP is best because it has very few competitors.

Speedtest Internet Ultra 400Mbps to a CenturyLink Spectrum Internet backhaul. Try downloading or Flipping some 1GB files from a test site to see for yourself. Measurement Labs or for the best general public broadband speeds by the FCC and by the Wisconsin Department of Public Instruction or DPI for testing schools. (This gives you an idea of how much faster the FCC puts into the self-reported Form 477's.) Spectrum tech support will likely quote you their Spectrum Residential Service Agreement. \*Spectrum does not guarantee that any particular amount of bandwidth on the Spectrum network or that any speed or throughput of Subscriber's connection to the Spectrum network will be available to Subscriber

Note: The most obvious way to tell if your internet provider is being throttled would be to run a free speed test available online. Unfortunately, most internet providers can detect speed tests and artificially inflate your speed to make it appear that they're not throttling you. So, a speed test isn't a foolproof way to identify internet throttling. \*\* The only reliable method of checking whether your connection is throttled is through a Virtual Private Network (VPN) or a proxy server. ISPs may sometimes throttle specific types of content, and a VPN can make this practice next to impossible by masking your IP address and activities from your ISP. \*\*\* With your ISP forced to treat all of your content equally due to the inability to discern what sort of websites you're viewing, you should then be able to measure your true speeds using an online speed test. \* ISPs can throttle all internet traffic, i.e. bandwidth-intensive traffic such as video streaming content (Netflix, YouTube, etc.) or peer-to-peer traffic (BitTorrent, etc.) \*\* Do you see Netflix loading slowly or even buffering? Run the Netflix FCC speed test and if the speed is lower than the speed you see on the speed test, there's most likely ISP throttling occurring. \*\*\* If you're having issues with YouTube, you can also check out the Google Video Quality report. It shows the performance of your internet connections to YouTube and whether you're being throttled. It shows the performance of your internet connection to YouTube and whether you're being throttled. It shows the performance of your internet connection to YouTube and whether you're being throttled.

About the Tests Large Internet Service Providers (ISPs) have degraded the performance of their customer's traffic as a tactic to convince content and application providers to pay added "tolls" to deliver content that Internet users have already requested and paid for. The background - where this degradation takes place - is at ISP interconnection points or ISPs. These are the places where traffic originating by ISP customers crosses between the ISP's network and another network on which content and application providers host their services. These tests measure whether interconnection points are experiencing problems. It runs speed measurements from your (the test user's) ISP, across multiple interconnection points, thus detecting degraded performance. https://www.battleforinternet.org/interneathealth/ http://internethealth.speedtest.com/ These tests use Measurement Labs (MLAB) infrastructure and code. MLAB is a research and industry coalition dedicated to open Internet measurement and public data. Running this test contributes valuable data to the public. MLAB has a Research and Data call for contractors to rights. The more data contributed, the better consumer advocates will be able to argue for strong Net Neutrality protections, and the more strong protections for FCC enforcement to keep the Internet open and ISP serving their customers.