

The Internet of Things at the Lake

The Internet services at the lake remain an issue, but certainly better as each year passes by. We rely on private companies to make this happen and sometimes it does not work out. There have been lots of stories in the news about companies not fulfilling their promises to deliver services. Perhaps some of the COVID funding will give us greater access in the near future!

We should all know what our options are for the Internet. There are basically a few ways that Internet service *can* be delivered to the lake.

- 1. Satellite:** These are companies like HughesNet, Wild Blue & Starlink. This technology relies on beaming signals to low earth orbit satellites from your house to earth stations where it connects to the Internet. They are costly - by comparison, and typically are "slower" than other services since the signal needs to travel a way and there is an inherent delay. The latest player in this market is Starlink
 - a constellation of satellites to provide broadband services to remote areas. Starlink (owned by SpaceX - Elon Musk) has launched 1500 low earth orbit satellites to help provide broadband internet services. They are in Beta service now - but it is up & working and provides decent Internet speeds.
 - you need to have a view of the N/NE sky.
 - speeds could be 50Mbps or higher download and 20Mbps or higher upload.
 - latency is advertised as 20-40ms which is fine for most all applications.
 - there are no data caps - at the moment - like other satellite providers.
 - understand it does not pass SIP protocol which would mean no WiFi calling at the moment.
 - Cost of service is \$99 per month plus the one-time equipment charge of \$581.94 - see below.
 - self installation.
 - There is a Starlink App you can download, and it will walk you through locating the antenna placement on your property. You can do this without ordering service.

More info at:

<https://www.starlink.com>

Type in your service address and you will be either able to sign-up to be notified or allowed to order equipment.

Hughes Net: <http://www.hughesnet.com>

[844-737-2700](tel:844-737-2700)

Wild Blue: <https://www.wildblue.com>

[855-627-2554](tel:855-627-2554)

Starlink: <https://www.starlink.com>

- 2. DSL:** This service is provided by Consolidated Communications and working well for many around the lake - but not all. This service is where the Telephone companies can use existing copper phone lines to multiplex the data and provide homes with Internet. Works well but is limited in the speed it can provide. Relatively cost effective and if you are within the prescribed distance of the Telephone building which is located on the East side.

DSL Services

Consolidated: [603-703-9865](tel:603-703-9865)

<https://www.consolidated.com>

- 3. Hybrid - Value Added Services:** So, these are companies that leverage existing services & technologies and then add value. So, a good example of this is New England Wireless Co (NEWCo). NEWCo uses a fiber optic connection to the outside world and then has set up a series of wireless access points around the lake to which you can connect to through a box that they provide. This system has been operational for several years and has been recently upgraded. You will need to call them to set-up the service - see info below. Pursuant to a grant from the State of VT New England Wireless Co. ("NEWCo") is now offering Internet access with speeds up to 25 Mbps down & 8 Mbps up. Below is a list of service levels now being offered by NEWCo*:

NEWCo Internet Access Service Plan details - June 2021:

<u>Product*</u>	<u>Download Mbps</u>	<u>Upload Mbps</u>	<u>Service</u>	<u>EPP**</u>	<u>Total</u>
Broadband 8	6	2	\$ 47.95	\$5.00	\$ 52.95
Broadband 12	9	3	\$ 55.95	\$5.00	\$ 60.95
Broadband 16	12	4	\$ 63.95	\$5.00	\$ 68.95
Broadband 20	15	5	\$ 71.95	\$5.00	\$ 76.95
Broadband 24	18	6	\$ 79.95	\$5.00	\$ 84.95
Broadband 28	21	7	\$ 87.95	\$5.00	\$ 92.95
Broadband 33	25	8	\$ 95.95	\$5.00	\$100.95
Broadband 36	27	9	\$103.95	\$5.00	\$108.95
Broadband 40	30	10	\$111.95	\$5.00	\$116.95

* Subject to coverage. May require non-standard equipment at additional cost.

** Equipment Protection Plan. Fee waived when using State funded equipment.

. - Phone service, unlimited local & long distance, US & Canada, \$24.95/ mth 1 line, \$44.95/ mth 2 lines (keep your old #)

. - Installation fee: \$150/ \$200/ \$250 with 2 yr/ 1yr/ no commitment. Early termination fee \$50/ yr short.

New England Wireless Co. llc

www.NEWISP.net

PO Box 5233, West Lebanon, NH 03784

NEWco Customer Support: 877-543-8429

4. **Cellular Data:** Anyone who has a smart phone has a data plan and these devices can be used to connect to the Internet. These systems rely on Cell Data towers to provide connectivity. Hopefully, in the next few years – newer technologies like 5G will create better Internet access at the lake. If we had good cell service into the lake you could also "hot spot" your cell phone to provide Internet. 5G has great data throughput but requires towers to beam down into the lake.

5. **Cable:** This may never happen either due to low density of population - but it uses Coaxial Cable to provide TV & Internet services. Doubt Spectrum or other providers will find payback by routing cable to the lake.

6. **Fiber to the House:** This may happen in our kid's lifetime at Maidstone Lake. Basically, the Telephone companies replace the old copper lines going to our camps with the Fiber Optic line. This type of system would greatly enhance our Internet to say the least! Larger cities have this type of service. Let's hope Consolidated moves on this soon!

Speed: Speed matters! Generally, you will be able to get somewhere between 1.25 - 25 Mbps on the services that are available to the lake. Those are terrible speeds compared to what you can get in the rest of civilization - but this is what we have! Your actual mileage may vary - your speed will be what you experience - NOT what they sell you! The costs vary as well from something like \$70 or so and up. Satellite services tend to be the costliest.

Which Internet Option is best? The one that works! Seriously - there are many factors in each of these services that need to be considered. Availability is the largest driver - some of these services will not work in certain locations of the lake - or work the way you expect it. As technologies improve and we can get better cellular services we should see the situation improving.

This stinks - who can I voice my opinion with? This is interesting because if you look at what the Vermont DPS states on their website - it is a private issue.

<http://publicservice.vermont.gov/telecom/consumers>

You can certainly email the Vermont Department of Public Service with your questions & inquiry.

BUT - the fact of the matter isthis is from their website:

Broadband (From Vermont DPS Website)

"Broadband services such as DSL, cable modem, dial-up Internet, wireless and satellite have been deregulated at the federal level by the FCC. What this means for consumers is that the state of Vermont cannot compel any company to offer broadband services, nor can the Board or the PSD regulate how these services are offered or what companies charge for them. The Telecommunications and Connectivity Division can assist consumers in finding out what broadband options are available in their area."

For more information on Vermont DPS Broadband Initiatives:

<https://publicservice.vermont.gov/connectivity>