



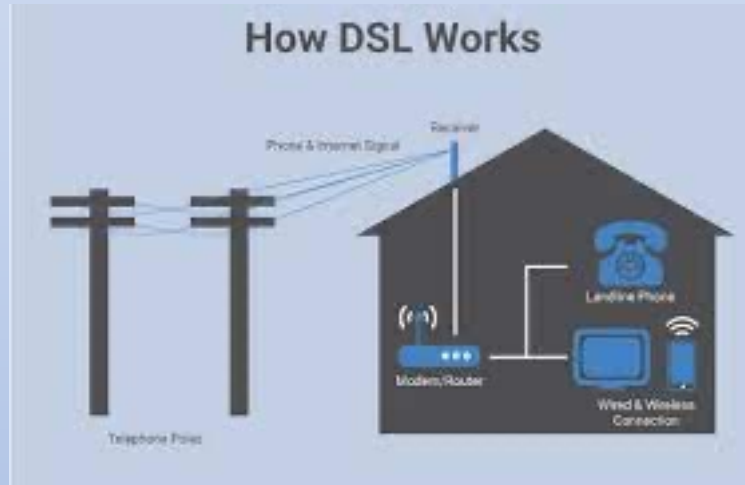
LEELANAU PENINSULA
ECONOMIC FOUNDATION

Leelanau Internet Futures Team

LIFT

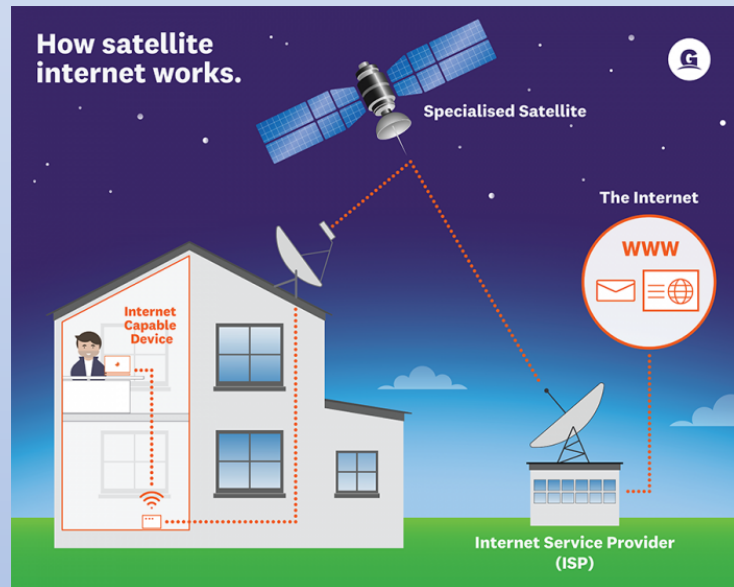
How is Internet Provided
And
Why Is It Important

Digital Subscriber Line (DSL)



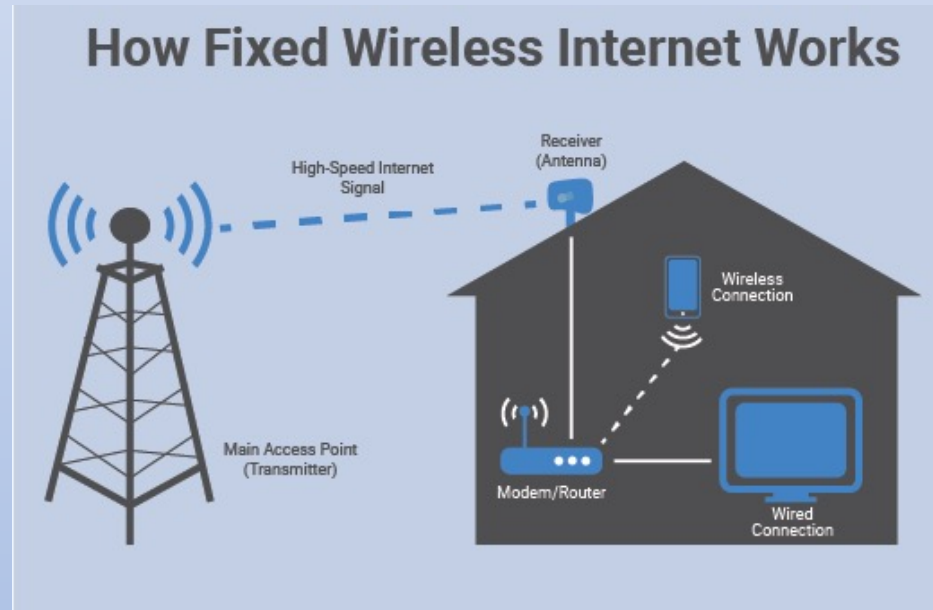
- Dial Up (very slow speed 5 Mbps or less)
- High Speed Digital Subscriber Line – uses phonelines (Download speed up to 100 Mbps)

Satellite



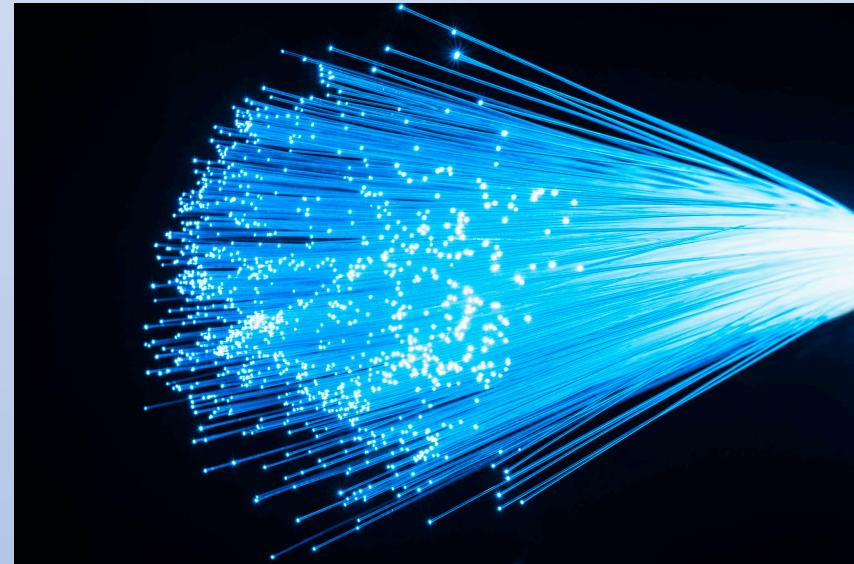
- Satellite – **Hughesnet**: thousand of miles - *high latency (25- Mpbs)*
 - Satellite – **Starlink**: hundreds of miles – *low latency (50+ Mpbs)*
- * **Latency = The delay before data transfer begins.**

Fixed-Wireless



- Fixed-Wireless – uses towers - Requires fiber optic hookup - Download Speeds 25 and up Mbps

Cable and Fiber



- Broadband Coaxial Cable – uses electricity – copper wires - shared bandwidth (speed 50 to 500 Mbps)
- Fiber to the Home (FTTH) – uses light – glass wires (250 to 1,000+ Mbps, symmetrical up/download speeds).

Why high speed broadband is needed

- Schools and students: remote learning
- Telemedicine: access to medical professionals & monitoring medical devices
- Businesses: home office; access to customers everywhere
- Agribusiness: access to technologies helpful to farm operations
- Residential: access to the digital world from at home
- Recreational: access to all kinds of information
- Government: communication with constituents
- First Responders: on-scene communications
- Community Organizations: outreach to clients and donors

LIFT: What is it, Why and Who

- 2017 - created by the Leelanau Peninsula Economic Foundation (LPEF)
- Mission: tasked with examining the status of broadband services in Leelanau County with a goal of developing an action plan to provide high-speed Internet access throughout Leelanau County
- Comprised of representatives from the various stakeholder organizations from across the County

What has LIFT learned

- From Initial Surveys
- From Meetings: Internet Service Provider (ISPs), Government
- From In-Depth ISP Discussions: Elevate Net, Agri-Valley, Aspen Wireless, Charter (Spectrum), AT&T, T-Mobil, and Cherry Capital Connection
- About current service: too slow, unreliable, price too high, customer service poor, data caps a problem
- Fiber To The Home best option – cost depends on ISP business model
- Workable Alternatives: Fixed-wireless, Starlink Satellite, Cellular Fixed-Wireless Home Internet (not hot spots, uses a modem).

What is LIFT Working on Now

- Internet sufficiency survey study – Maps current internet services and speeds by parcel address, county-wide
- Federal and State grant infrastructure opportunities
- Advising local and county governments
- Meeting with ISPs
- Working with zoning and planning administrators – uniform communication & tower ordinances where possible to encourage more ISPs to provide service in Leelanau County

What's Happening Now

Cellular Fixed-Wireless Home Internet service (uses modem, not hot spots):

- AT&T: https://www.att.com/buy/bundles/?product_suite=NBB
- T-Mobile <https://www.t-mobile.com/isp/eligibility>
- FCC Emergency Broadband Program helping families to obtain broadband services. Program information and criteria:

<https://www.fcc.gov/broadbandbenefit>

Michigan ISPs participating in the program:

<https://www.fcc.gov/emergency-broadband-benefit-providers#Michigan>

What's Happening Now

Fixed Wireless Companies on County Owned Towers:

County ARP dollars – Fund new County tower, increase height of Maple City tower – spring 2022

- Cherry Capital Connection (CCC) – Currently On Law Enforcement Center Tower
- Elevate Net – New ISP – On Maple City Tower and Omena Tower
- Agri-Valley – New ISP – Will be on Maple City, Central and Omena tower late fall 2021 or Spring 2022

Satelite Companies:

- Starlink Beta Expansion – Check if your home is eligible:
<https://www.starlink.com>

What's Happening Now

Fiber to the Home (FTTH):

- Results from recent Federal Rural Development Opportunity Fund (RDOF) auction to encourage expansion of broadband in rural communities within 6 years. Leelanau County RDOF winners check to see if your home is included::

- ❖ Charter (Spectrum) – Fiber Expansion

<https://www.spectrum.com/cp/build?cmp=ruralbuild>

- ❖ Cherry Capital Connection – Fiber Expansion

<https://www.cherrycapitalcommunications.com/rdof>

What's Happening Now

More Fiber to the Home (FTTH) Options:

❖ Grand Traverse Band – Fiber Expansion

NTIA grant to expand fiber service connectivity to 1,463 households with poor or nonexistent service, including 293 Tribal households, by extending in excess of 416 miles of fiber within the region to provide middle mile and last mile service. This project includes connecting Beaver Island to both Manistique and Northport.

❖ 186 Networks – Offers Fixed Wireless but now doing Fiber expansion in some areas:

<https://www.186networks.net/slashband-services/>

Michigan Electric Cooperatives

- ❖ 4 of 5 cooperatives throughout the region deploying Broadband to the home
- ❖ From Ohio – Indiana – all the way to Mackinaw

Cherryland Electric Cooperative 8/4/2 Letter to the BOC

“We believe strongly that rural areas without present access to high-speed broadband need help....Cherryland is exploring how it could partner with other cooperatives and private/market providers and be part of a solution.

Cherryland stands ready to be a facilitator/convener of like-minded entities seeking similar results in our region.”

Cherryland Electric Cooperative 8/4/2 Letter

“Currently evaluating partnerships that can accelerate broadband deployment in the Grand traverse region, while allowing us to remain true to our core mission of safe, reliable and affordable electricity. We believe that partnerships are essential to a successful deployment of the tens of millions of dollars necessary to ensure ALL rural citizens have equal access to rural broadband infrastructure. We look forward to working with Leelanau county (and other counties in our region) to develop realistic plans to deliver affordable broadband in the coming months.”

Many Options – What's Right for You?

Questions You Should Ask Providers.

Before signing or putting money down do a little research and ask:

- 1.) Source of internet service? (towers, phonelines, coaxial cable, fiber)
 - Towers:
 - Location of tower relative to your home/business?
 - Signal propagation: How many miles does their signal project?
 - Phonelines: download & upload speeds—asymmetric or the same?
 - Fiber: buried underground or above ground (pole)?

2.) Speed Available? (if you are closest and farthest from the source)

3.) Source of infrastructure financing?

- Provider has large capital assets – company invests: lower fees for customers

- Provider uses a braided form of funding – company uses customer investment fees plus capital: higher fees for customers

4. Timelines

- Number of projects ahead of you and time for their completion?

- Realistic projected dates for service installed to your home?

5. Check References:

- Ask friends who have the service – reliable, speeds they get?

- Google provider on the internet – how are they rated? Have complaints been filed? Any lawsuits? Customer Service rating?