Broadband 101



What?

What is broadband?

High-speed broadband is a **standard**. According to the Federal Government, internet service "counts" as broadband if it reaches *download speeds* of at least 25 mbps* and *upload speeds* of at least 3 mbps*. **The state of Maine defines high-speed broadband as internet with both download and upload speeds of at least 100 mbps.**

*mbps - megabits per second

Key terminology

Download Speed - speed that your device receives data (i.e. streaming Netflix)

Upload Speed - speed that your device sends data (i.e. video conferencing)

Symmetrical - internet service with the same download and upload speeds

Incumbent Internet Service Provider (ISP) - your existing Internet Service Provider

Take Rate - a percentage of locations subscribed to service vs. the total number of possible subscribers

Reliability - typical user experience based on factors including number of users, line of sight, weather, age of infrastructure

Comparing Technology Options

Technology	How Data is Transmitted	Average Speeds (mbps down/up)	Reliability	Example in Maine
DSL (Digital Subscriber Line)	Over copper phone lines	5-7 / 1-2	Low	Consolidated Communications
Cable	Over coaxical copper TV lines	25-400 / 3-35	Moderate	Spectrum
Fixed Wireless	From cellular towers	10-100 / 1-2	Variable	RedZone
Satellite	Signals from satellites in orbit	100 / 20	Variable	Starlink
Fiber Optic	Light signals via glass strands	1,000 / 1,000	High	Fidium