



NEW NORTH BROADBAND ALLIANCE

**A GUIDE TO
BROADBAND EXPANSION
2024**

**Broadband Initiatives in the New North region:
TheNewNorth.com/Broadband-Access**



What is Broadband?

Broadband is more than just fast internet — it's the lifeline of our modern world. This high-capacity internet connection, typically defined as having a minimum download speed of 100 Mbps (megabits per second) and upload speed of 20 Mbps, rapidly transmits large amounts of data, transforming how we live, work, and connect.

Broadband is essential for our community connectivity.

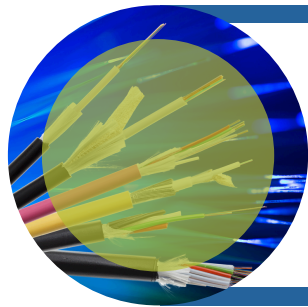
- **Students accessing a world of knowledge.**
- **Patients consulting doctors remotely.**
- **Businesses reaching global customers.**
- **Families video chatting across continents.**
- **YOU streaming, working, and playing without limits.**

Expanding broadband access is a transformative investment in our communities and shared future. It's about:

- Creating equal opportunities in education and employment.
- Improving health through better medical access.
- Boosting economic growth via global market connections.
- Enhancing life quality with information access.

By building this infrastructure, we ensure no one is left behind in our connected world. Broadband expansion bridges gaps — to knowledge, healthcare, economic opportunities, and each other.

Common Types of Broadband Connections



Fiber (or Fiber to the Premises)

- Uses advanced "glass" cables
- Best For: 5+ users, heavy use and lots of devices
- Business: Ideal for medium to large offices

Pros

- Fastest and most future-proof
- Reliable for many users
- Normally equal download/upload speeds
- Excellent for work from home

Cons

- Limited availability by location
- Expensive in rural areas



Cable Modem

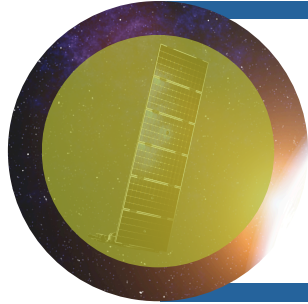
- Uses TV cables
- Best For: 3 - 5 users, moderate to heavy use and some devices
- Business: Good for small offices, retail

Pros

- Fast and reliable
- Widely available
- Handles multiple devices
- Suitable for work from home

Cons

- May slow during peak hours
- Possible data limits
- Slower upload speeds



Starlink

- Uses low-orbit satellites
- Best For: 3 - 5 users, moderate use and multiple devices
- Business: Can be used for rural areas needing faster speeds

Pros

- Faster than traditional satellite
- Works in remote areas
- Supports video calls
- Portable options available

Cons

- Higher cost up front
- Higher cost monthly
- Installation can be challenging
- Needs clear sky view
- Variable service quality



Fixed Wireless/Cellular

- Uses tower radio signals
- Best For: 2 - 4 users, moderate use and multiple devices
- Business: For use in areas without wired options

Pros

- Good for rural areas
- Quick setup
- No wires needed
- May work for work from home

Cons

- Needs line of sight to tower
- Weather affects service
- Limited availability



Digital Subscriber Line (DSL)

- Uses phone lines
- Best For: 1 - 3 users, light use and limited devices
- Business: Very small businesses, solo entrepreneurs

Pros

- Available in rural areas
- Affordable
- Dedicated connection

Cons

- Slower than cable and fiber
- Limited user support
- Not ideal for work from home



Satellite

- Uses space satellites
- Best For: 1 - 3 users, light use and very limited devices
- Business: Last resort for rural areas

Pros

- Available almost anywhere
- Option for remote locations

Cons

- Slow response times
- Weather disruptions
- Data limits
- Not for work from home

* Devices can be web cameras, doorbell cameras, streaming TV, cellphones, tablets and other internet connected devices.

** Many devices require a high speed, stable internet connection

Addressing your Broadband Needs at Home

Choosing the right internet isn't just about having a connection — it's about having one that fits your household's diverse needs. The Federal Communications Commission (FCC) recommends at least 25 Mbps for a household of four, or about 6-10 Mbps per person.

But why does this matter? Because reliable internet keeps your daily life running smoothly across various areas:



Education:

- Online classes and research require stable connections
- Video tutorials and interactive learning platforms need good speeds

Healthcare:

- Telemedicine appointments depend on clear video connections
- Accessing and uploading health records requires reliable internet

Work and Economy:

- Remote work often involves video calls and large file transfers
- Online business operations need consistent, fast connections

Recreation and Social:

- Streaming movies or gaming benefits from higher speeds
- Video chats with friends and family require stable connections

Things to Consider:

Multiple users increase the need for higher speeds
Future needs may require more bandwidth than you use today
Investing in faster speeds now can prevent frustration later

Remember, in today's digital world, good internet isn't a luxury — it's an essential tool for learning, health, work, and staying connected. Take time to assess your household's needs across these areas. The right choice can significantly enhance your online experience in all aspects of life.

Broadband in Action

What Different Connections Mean for Your Online Life

Your home internet capabilities significantly impact your online experience.

The type of broadband you have affects everything from how you work and learn to how you relax and stay connected with loved ones. This chart provides a simple overview of common internet connection types, highlighting their strengths and potential limitations. By understanding these differences, you can better align your household's needs and budget with the available options. Remember, a well-suited internet connection can make your online life smoother, more productive, and more enjoyable.

Connection Type	Typical Speeds	What you can Do	May Struggle With	Typical # of Devices	Cost Range <small>*monthly cost</small>
Fiber-Optic	Very Fast	Stream 4K on multiple TVs, fast downloads, smooth online gaming	Limited availability by location and expensive to build	5+	\$\$-\$\$\$
Cable	Fast	HD streaming, video calls, fast downloads	Slowdowns during busy times	3 - 5	\$\$\$-\$\$\$\$
Starlink	Fast	HD streaming, video calls, online gaming	Service interruptions in bad weather	3 - 5	\$\$\$\$
Fixed Wireless	Moderate	Web browsing, standard video, online shopping	HD and large files	2 - 4	\$\$-\$\$\$
Cellular	Moderate	Web browsing, social media, video streaming, mobile gaming	Data caps, speed can vary by location	1 - 2	\$-\$\$
DSL	Moderate	Basic browsing, email, standard video	HD streaming and gaming	1 - 3	\$-\$\$
Satellite	Varies	Basic web browsing, email	Video calls and gaming	1 - 3	\$\$\$-\$\$\$\$

Understanding these differences can help you match your internet connection to your digital lifestyle. Whether you're a casual browser or a power user, there's an option that fits your needs. Remember, the best choice balances your online activities, budget, and available options in your area.

Why is Broadband **Essential?**

Broadband internet has become a critical infrastructure for modern society, impacting nearly every aspect of our daily lives. Its importance extends far beyond simple internet browsing, playing a crucial role in education, healthcare, economic development, and overall quality of life.



Broadband & Education

In today's digital age, broadband is transforming education at all levels. It expands learning beyond traditional classroom walls, offering students and educators access to a wealth of resources and innovative teaching methods.

- Provides access to online educational content and research materials
- Enables remote learning and virtual classrooms
- Improves communication between students, teachers and parents
- Supports personalized learning experiences
- Prepares students for a technology-driven workforce



Telecommuting & the Economy

Broadband has revolutionized the way we work, enabling telecommuting and flexible work arrangements. This shift has significant implications for economic development, particularly in rural areas.

- Allows employees to work from home, improving work-life balance
- Attracts skilled workers to rural areas, boosting local economies
- Reduces commuting costs and time, increasing productivity
- Supports small business growth and entrepreneurship
- Enables access to global job markets from any location



Broadband & Healthcare

High-speed internet is increasingly vital in healthcare, improving access to services and enhancing the quality of care. Broadband enables telemedicine and remote patient monitoring, which are particularly beneficial for rural and underserved communities.

- Facilitates telemedicine appointments, reducing travel for patients
- Supports remote monitoring of chronic conditions
- Improves communication between healthcare providers and patients
- Reduces healthcare costs through more efficient service delivery
- Enhances access to mental health services in underserved areas

Broadband's

Economic Impact by Industry in Wisconsin

Broadband internet has become the backbone of modern economic growth, touching virtually every industry and reshaping how businesses operate. High-speed internet has transformed from a convenience to a critical tool for economic success.

In the New North region, broadband expansion is particularly crucial for driving economic growth and connecting our diverse communities. Research by UW-Madison Extension shows that broadband has a big impact, particularly in rural areas. Good internet access attracts businesses and new residents, encourages entrepreneurship, improves farming, and can increase property values. It supports "work-from-anywhere" policies, helping to retain younger populations in rural communities. Furthermore, broadband expansion creates jobs and fosters community stability. By enabling remote work and providing access to global markets, high-speed internet is revitalizing rural economies and creating new opportunities for residents of all ages.



Real Estate

- Increases property values; 90% of home buyers prioritize fast internet
- "How's the broadband?" is the top question for rural homebuyers
- Enables virtual property tours and online listings, enhancing real estate marketing



Manufacturing

- Supports supply chain management
- Enables IoT integration and remote quality control
- Facilitates global market connections



Small Business

- Creates nearly two-thirds of rural jobs
- Supports technology-dependent operations
- Enables web-based retail and marketing



Professional Services

- Boosts entrepreneurship, especially for rural and home-based businesses
- Enables global client servicing through video conferencing and digital collaboration
- Expands access to specialized talent and services beyond local markets



Agriculture

- Allows participation in online marketing and purchasing
- Enables use of "smart farming" technology
- Correlates with increased crop yields (2020 FCC study)



Healthcare

- Enables telemedicine appointments
- Facilitates remote patient monitoring
- Improves access to health services in rural areas



Tourism

- Facilitates touchless pay in retail
- Enables public Wi-Fi for travelers (85% decide activities after arrival)
- Supports "work-from-anywhere" vacations



Education

- Enables remote learning and access to global educational resources
- Supports innovative teaching methods and personalized learning
- Develops digital skills crucial for the future workforce

Remote Work and Broadband

High-speed internet has become essential for the growing trend of remote work, enabling access to global job markets and supporting tools like cloud-based storage and video conferencing. Industries leading this shift include Information Technology, Financial Services, Marketing, Education, and Professional Services. This trend has significant implications for rural Wisconsin, allowing residents to tap into diverse job markets without relocating.

By expanding broadband access, Wisconsin can position its rural communities to fully participate in the digital economy, attracting and retaining skilled professionals across various industries. This highlights how broadband expansion is not just about faster internet, but about opening doors to economic growth and professional development throughout Wisconsin.

A circular inset image showing a broadband tower in a landscape with trees and a blue sky.

Why does Broadband Matter to You?

***Broadband is more than just fast internet —
it's a gateway to opportunities.***

- In **education**, it provides access to online classes and vast research resources.
- For **healthcare**, it enables telemedicine appointments and easy access to health information.
- In the **work sphere**, it opens doors to remote jobs and improves productivity for home-based businesses.

Broadband also strengthens our communities by keeping us connected through video calls, providing access to government services, and offering various entertainment options.

However, a broadband gap exists.

Urban areas often have better, more affordable options, while rural areas may face limited choices or higher costs. Your location can significantly impact your broadband access and, consequently, your opportunities in education, healthcare, work, and community engagement.

Take Action

- Assess your connection by asking, “Is it meeting my current needs?”
- Research available options in your area

If you're struggling with internet access or affordability:

- Reach out to your state and local elected officials
- Voice your concerns at local government meetings
- Contact your local internet service providers

Your voice matters!

By speaking up about broadband needs, you can help shape policies and investments that bring better internet to all Wisconsin communities.

Remember: In today's digital world, reliable broadband isn't a luxury - it's a necessity for full participation in society and the economy.