



Cable's Broadband Commitment

Wisconsin Cable Communications Association

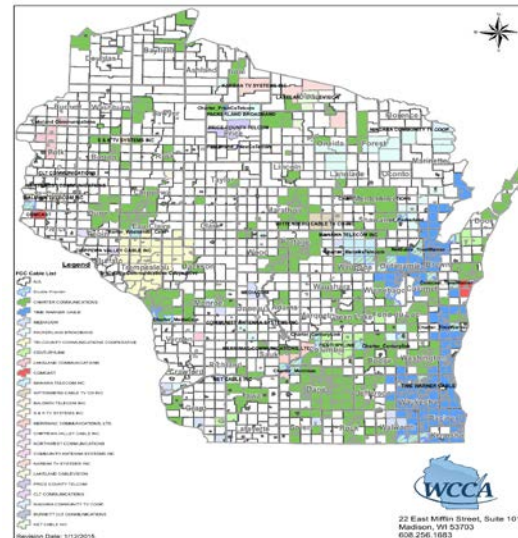
August 3, 2016

Who is the WCCA?

Founded in 1968, the WCCA is comprised of 21 traditional cable companies which provide cable, broadband and telephone service in 1,000 Wisconsin communities.

May of 2016, our two largest members, Charter Communications and Time Warner Cable merged. Combined, the new Charter Communications serves more than 700 communities in Wisconsin.

Baldwin Telecom, Inc.
CenturyLink
Charter Communications
Chippewa Valley Cable, Inc.
CLT Communications
Comcast
Community Antenna System, Inc.
Karban TV Systems, Inc.
Lakeland Telecom
Manawa Telecom
Mediacom
Merrimac Communications
Net Cable Inc.
Northwest Communications
Packerland Broadband
Price County Telcom
S & K TV Systems Inc
Tri-County Communications
Cooperative
Wittenberg Cable TV Co Inc



The Evolution of Cable Television

Beginning almost simultaneously in Arkansas, Oregon and Pennsylvania in 1948, cable originally brought distant over-the-air television signals from miles away to mountainous or geographically remote areas.

Cable came to Wisconsin in 1953 when residents in Richland Center wanted to watch the Badgers in the Rose Bowl, but could not receive a signal over the air from Madison so they built an antenna on a hill and strung cable lines to houses in the community.

In the 1960s and 1970s, cable TV expanded into bigger cities and major metro areas. The 1970s also saw the launch of the first pay-TV network, Home Box Office (HBO), and what became known as the first "superstation," WTBS.



The Evolution of Cable Television

Investment in infrastructure and programming boomed during the 1980s when by the end of the decade, nearly 53 million households subscribed to cable, and cable program networks had increased from 28 in 1980 to 79 by 1989.

By the 1990s, the cable modem was introduced, making residential high-speed Internet access a reality in the U.S. The early 2000's saw the benefits of cable's massive investment to build high-capacity hybrid fiber-coax networks. Soon after, operators began delivering digital and HD video, high-speed Internet access, and two-way voice services to the home.

Today, cable provides video entertainment, Internet connectivity, and digital telephone service to more than more than 56 million consumers. What began over a half century ago among a few visionary pioneers has led to the creation of approximately 800 programming networks viewed by over 93% of Americans.



Cable's Broadband Investment in Wisconsin

- In Wisconsin, cable began widespread deployment of residential and business class broadband in 1997, at a time of dial-up service fax machines, effectively creating the broadband market we have today.
- Cable did this by investing over \$5 billion of private, at risk capital in Wisconsin's infrastructure with the goal of rebuilding our entire network to offer broadband service to every home passes by our fiber and coaxial networks.
- Today, the goal of offering broadband throughout our service footprint has been achieved: cable's broadband product is now available to more than 2.3 million of the 2.6 million Wisconsin housing units identified in the 2010 census. This means that cable providers alone are reaching 90% of Wisconsin's residential housing units.



Built by Private Capital

America's Internet builders have invested **\$1.4 trillion** of private capital to deploy broadband networks that reach nearly every corner of the U.S. As the nation's largest broadband provider, cable's fiber-rich networks are available to 93 percent of U.S. homes.

Cable's Investment in Wisconsin

Direct and Indirect Jobs: 36,578

Cable Operator Employees: 4,285

Total Economic Impact: \$5.5 Billion



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2016

TRACKING CABLE'S INVESTMENT IN INFRASTRUCTURE

SINCE 1996, CABLE HAS INVESTED **OVER \$245B** IN CAPITAL INFRASTRUCTURE



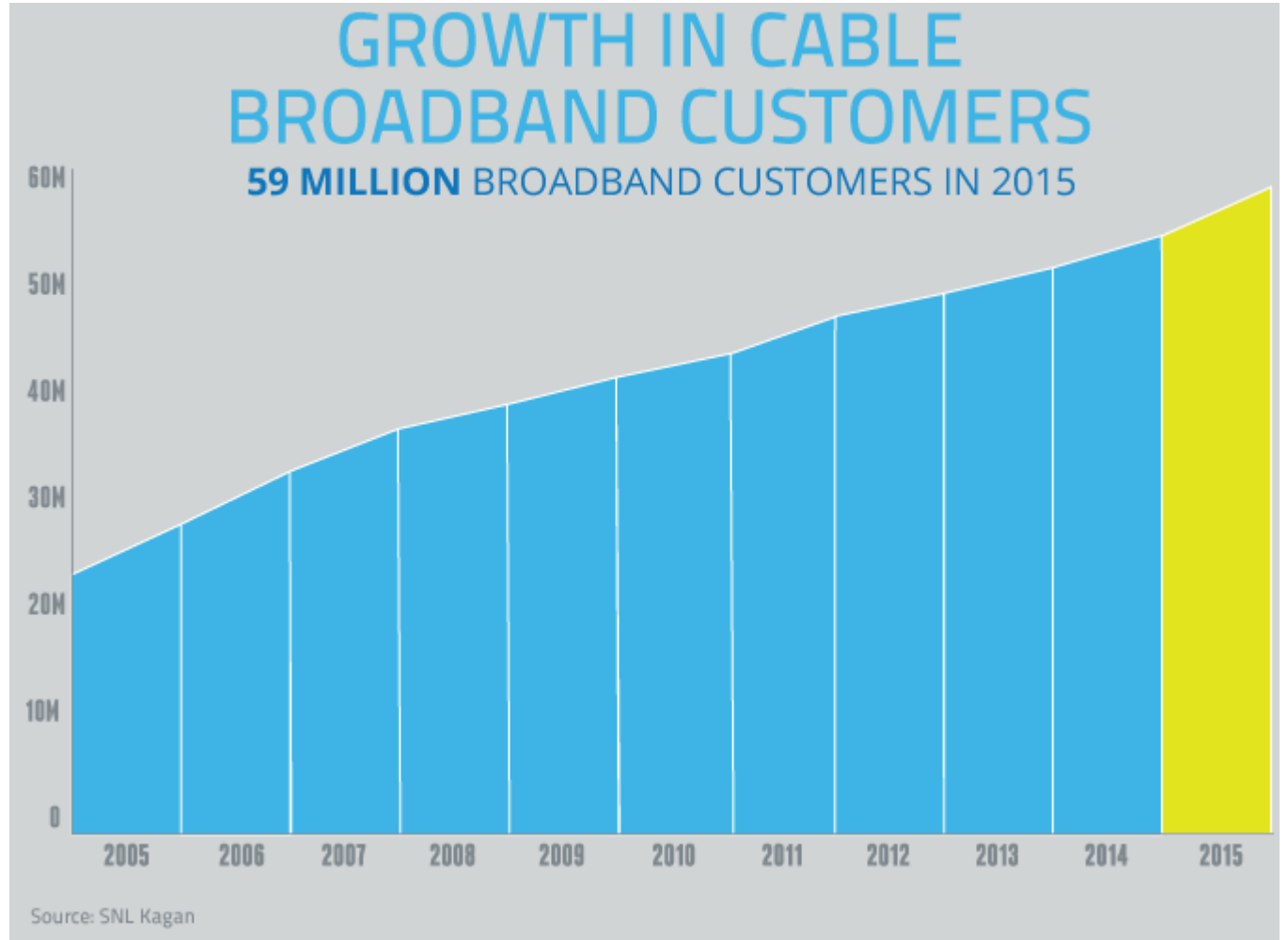
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America's Broadband Leader

Broadband adoption has doubled in 10 years.

More than two-thirds (67%) of Americans are now online, taking advantage of all the opportunities the Internet offers.

Today, there are over 59 million cable broadband customers, each one proving the importance and value of a fast broadband connection.

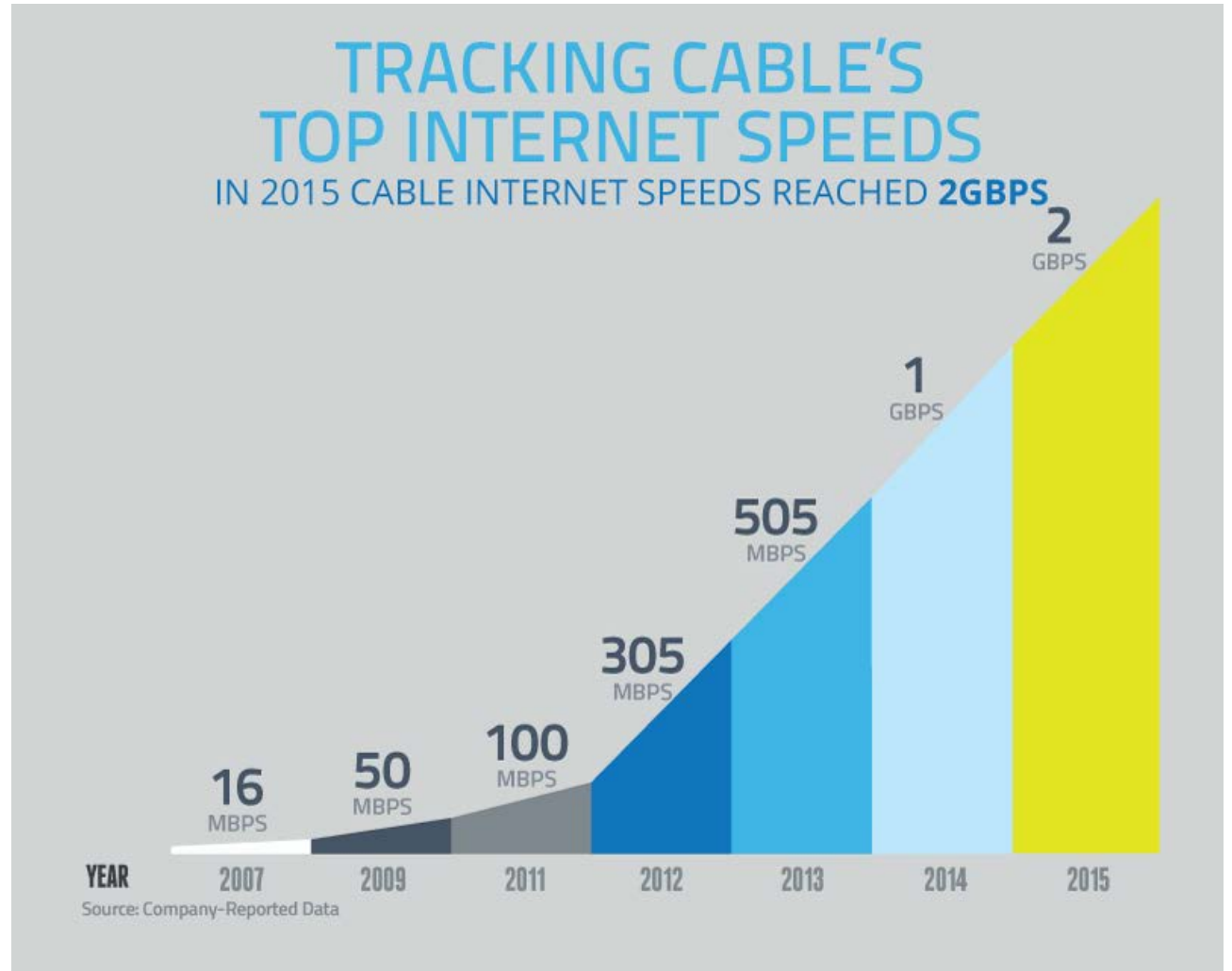


The Need For Speed

The more we use the Internet, the more speed we want. Cable networks' ever-increasing speeds fuel all the streaming, downloading and gaming you want. In just the last few years, maximum speeds have quadrupled – now up to 2 Gigabits per second.

Cable delivers advertised download speeds – 99% of the time, as reported in the FCC's recent report Measuring Broadband Speeds.

Cable is continuing to invest and innovate. The next generation cable modem platform (DOCSIS 3.1) will provide ubiquitous gigabit residential service when deployed.



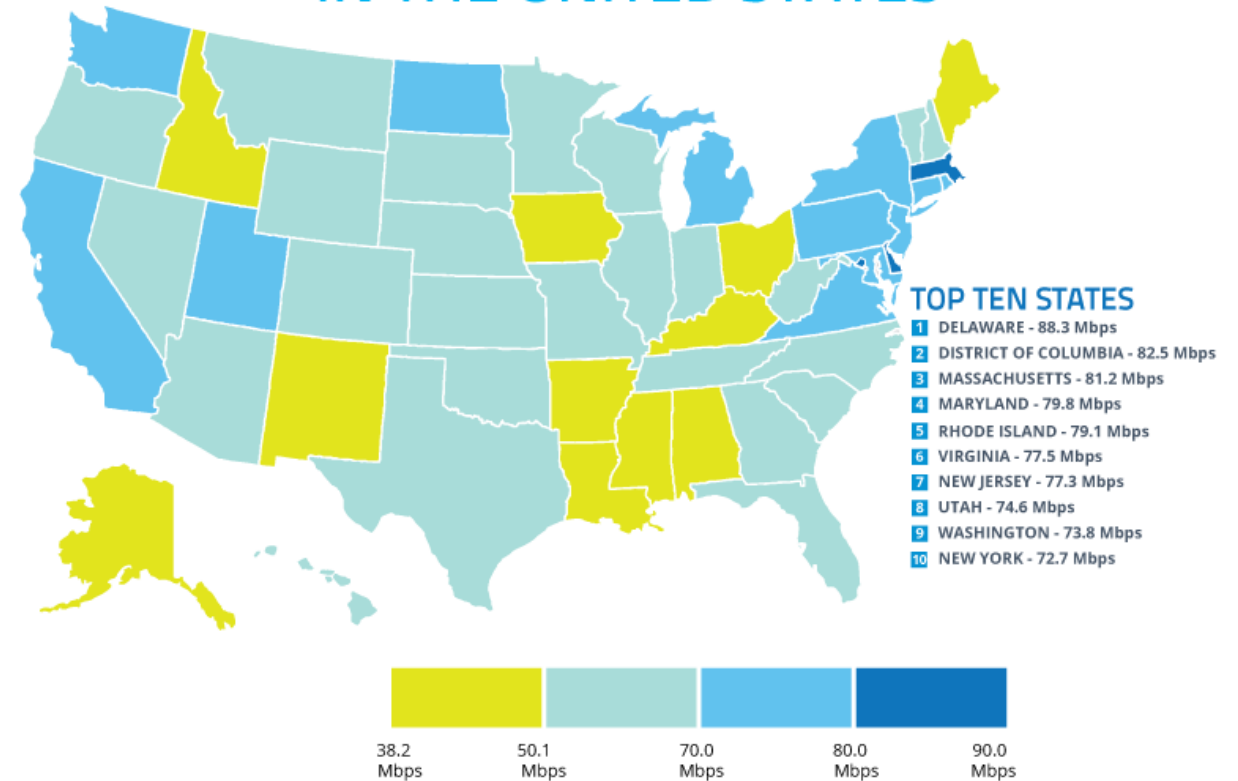
Speed for All

With 400,000 miles of fiber optics powering cable's broadband networks, communities large and small across America can enjoy the Internet at warp speed.

In Wisconsin, 94% of cable customers can access speeds between 50-100 Mbps. All legacy Charter Communication customers' service starts at 60 Mbps.

Business customers are able to access gigabit plus service communities served by Charter Communications fiber networks.

AVERAGE PEAK CONNECTION SPEEDS IN THE UNITED STATES



Source: Akamai State of the Internet, Q4 2015



A Vibrant Marketplace

The U.S. is only one of two countries with three fully deployed broadband technologies where consumers choose from cable modem, DSL and wireless broadband connections. At least 86 percent of Americans have access to four or more broadband providers.

U.S. BROADBAND COMPETITION

MOST AMERICANS HAVE A CHOICE OF
AT LEAST FOUR BROADBAND INTERNET SERVICE PROVIDERS



Source: Competition Among U.S. Broadband Service Providers, Economics and Statistics Administration, U.S. Dept. of Commerce, December 2014



New Charter Communications Commitment to Invest

Charter has made commitments to improve broadband offerings across its new footprint.

- **New Charter will make comprehensive and significant investments in its broadband network.** The company will transition TWC cable systems to all-digital networks, enabling consumers to take advantage of at least 60 Mbps download speeds and enjoy more High Definition and video on demand options.
- **Affordable, unlimited broadband.** New Charter will price its new 60 Mbps entry level speeds based on Charter's current model, which is less expensive for consumers than Time Warner Cable's and Bright House Networks' comparable offerings. It features straightforward, nationally uniform pricing with no data caps, no usage-based pricing, no modem fees, no early termination fees, and does not offer plans with separate federal or state Universal Service Fund (USF) fees to customers.

(Source: New Charter PUBLIC INTEREST STATEMENT (Summary))



New Charter Communications Commitment to Invest

- **New Charter will invest significantly in both in-home and out-of-home WiFi.** New Charter will increase competition in the mobile data market by deploying over 300,000 out-of-home WiFi access points.
- **New Charter will build out one million line extensions** of our networks into residential areas within our footprint beyond where we currently operate. These new facilities will help provide high-speed service to rural and other underserved areas.
- **New Charter will invest at least \$2.5 billion in the build-out of networks into commercial areas** within our footprint beyond where we currently operate. This will create additional, much-needed competition in the commercial sector.



Reaching Unserved Areas With Broadband

- As was acknowledged several years ago in an FCC 706 report, broadband has generally been deployed where there is a business case to be made for its deployment.
- Cable believes government programs can help provide incentives to deploy in high-cost areas, provided the programs are properly structured so as to encourage private sector investment. Above all, public sector broadband programs must be structured to do no harm to or discourage existing private sector investment.



Reaching Unserved Areas With Broadband: Principles for Broadband Expansion Programs

Focus on Unserved customers

- Limited public support mechanisms must be targeted to reach areas with no existing broadband service
- Public dollars should not be directed towards overbuilding existing private investment.

Involve Private Sector Providers

- Public broadband support should incentivize private sector investment.
- The huge cost to deploy, maintain and reinvest in America's broadband network will need to come from the private sector. Public programs can be tailored to incentivize further private sector investment.



Reaching Unserved Areas with Broadband: Principles for Broadband Expansion Programs

Target End Users

- Public broadband support programs should be designed to target the needs of end users.
- They should be technology and private sector provider neutral.

Maximize Public Investment Through Cost Sharing

- Broadband expansion programs can maximize limited resources by requiring cost sharing with private providers.



Wisconsin's Broadband Expansion Grant Program

With the below criteria in mind, the cable industry is supportive of the Wisconsin Broadband Grant Expansion program:

- The program focuses on unserved areas first.
- Public/private partnerships are required.
- Commissioners have been requiring some type of matching dollars by virtually all winning submissions.
- The Commission looks to target limited dollars to projects which will provide the most benefit.



Wisconsin's Broadband Expansion Grant Program

- Wisconsin cable providers have partnered with several communities to participate in the Broadband Expansion Grant Program and there are currently more applications for grant participation on review at the PSC.
- The Broadband Expansion Grant program can provide an incentive for further investment from Charter Communications and other cable providers.

The New Charter is committed to building out their networks into residential areas within their footprint beyond where they currently operate, including service into rural and other underserved areas.



Wisconsin's Broadband Expansion Grant Program: Cautions

- Public broadband support programs often award grants to projects which overbuild the private sector. Example: The 2009 BTOP program resulted in significant overbuilds of the private sector across the US.
- In the Madison area, for example, one company received millions of dollars in BTOP funding to plow fiber through the isthmus. That entity took several customers from private sector providers and now competes with Charter Communications and AT&T.
- The PSC needs to continue to exercise diligence to prevent government funding of projects which will overbuild and compete with private sector deployments.



Conclusion

A successful rural broadband expansion program in Wisconsin will:

- Maintain a true Public/Private partnership in investment.
- Identify and streamline right of way barriers to build out that inflate the cost of broadband deployment.
- Eliminate any public funding being used to overbuild areas that already have broadband.



Questions?

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