



DAVID STEFFEN

STATE REPRESENTATIVE • 4TH ASSEMBLY DISTRICT

December 8, 2021

Chairman Kuglitsch and Members of the Committee,

Thank you for holding a public hearing on AB 573 relating to broadband mapping and utilizing federal funds for broadband and cellular service expansion grants.

In the technologically connected world we live in, access to fast and reliable internet is paramount. This bill will require the Public Services Commission to award grants for the deployment of wireless broadband and cellular service infrastructure across the state of Wisconsin. Furthermore, this bill will require and fully fund a publicly accessible mapping program to assist residents and businesses in knowing where broadband is available within their communities.

It is vital that Wisconsin's rural communities have wireless broadband coverage options (in addition to hard-wired broadband options) to work, learn, and obtain healthcare. It is also critical that our residents have access to police and first responders in times of emergency, especially along our highways. As this bill requires increased cellular phone service coverage along our state highways for grant eligibility, we are providing an extra layer of safety for rural residents and the traveling public. It is estimated that 9,600 miles of rural interstate and state trunk highways would benefit from these carrier buildouts. For underserved communities around the state, access to reliable internet is long overdue. This bill would prioritize projects that expand broadband to areas of the state that are currently unserved or underserved, as designated by the FCC.

This legislation is fully funded by the American Rescue Plan Act (ARPA). These federal funds are dedicated by law to specific types of investment, including broadband infrastructure. \$70 million of federal funds will be allocated to the grant program, \$5 million will be allocated to broadband mapping, and half a million will be allocated for additional project positions. No state tax dollars are required or authorized in this legislation.

Consumer dependency on mobile connectivity and mobility will continue to be a catalyst for economic growth. This bill reflects that reality and invests federal broadband infrastructure dollars in a way that complements and extends our current land-line broadband efforts in Wisconsin.

I appreciate your consideration of this bill and I would be happy to answer any questions you may have.

UScellular in Wisconsin | *Locally Grown Wireless*

Coverage Metrics:

87%
Population Covered



Royal Blue + Green = UScellular Coverage
Navy = Roaming Partner

Network Metrics:



1,015
Cell Towers



56%
% Towers Owned



40%
% Towers in Rural Areas



46%
% of Towers w/ 5G

Store/Office Metrics:



41
Company Owned



98
Agent Owned



1
Call Center



2
Regional Offices



3
Local Connectivity Centers



736
Employees

Investment:

We take the responsibility of keeping our customers connected very seriously, and every investment we make in our network is designed to enhance their wireless experience.

Kristy Baron
Director Retail Sales and Operations, East WI

\$111M
2020 WI Network Capital Investment

\$44M
2021* WI Network Capital Investment

\$387M
'20-21 WI 5G Mid-Band Spectrum Licenses

\$178K
2020 Charitable Donations to WI Communities



As America's locally grown wireless carrier, supporting local educational initiatives like the Boys & Girls Clubs' STEM programming is in UScellular's DNA.

Christine Paulsen
Director Retail Sales and Operations, North/West WI

*2021 through October



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UScellular's 5G high speed internet solution offers significant advantages over previous fixed wireless solutions

Advantages/ Benefits of UScellular 3GPP 5G High-Speed Internet



- Adds new licensed spectrum bands across low, mid and mmWave spectrum bands to increase capacity and throughput
- Further speed improvements due to 5G's enhanced spectral efficiency



- Increased reliability and performance as licensed spectrum leverages exclusive and fully-controlled subscriber access to protect against interference



- 5G technology supports complete encryption of data between the network and the FWA device. This encryption ensures data confidentiality and protects the subscriber's privacy
- 5G networks are a critical national security asset; DoD currently has an RFP out to migrate its systems to 5G

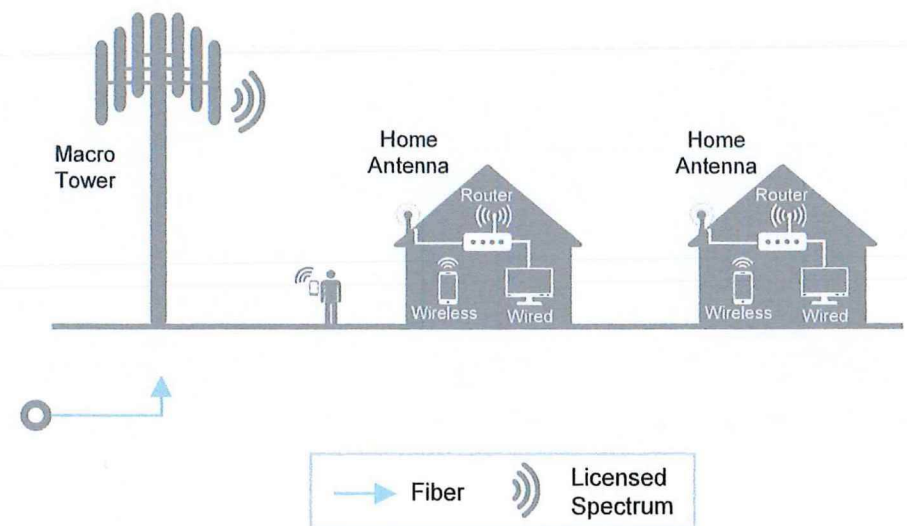


- High reliability backed by a 30-year history of large-scale wireless network expertise
- UScellular equips sites with at least eight hours of battery back-up power to ensure functionality without an external power source
- Highly redundant network with back-up power, capability to rapidly deploy cell sites on light trucks ("COLTs") in emergency situations.



- Leveraging the collective R&D of the 5 billion subscriber, \$1 trillion/year¹ mobile ecosystem
- Wireless operators are continually re-investing in the network to ensure ongoing competitiveness - \$282 billion invested by U.S. mobile network operators since 2010²

UScellular 3GPP 5G High Speed Internet Solution



WI will need **both fiber and fixed wireless** to close the gap, especially in rural areas. Standards-based 100/20 Mbps 5G fixed wireless is a future proof in-the-home solution.

100/20 Mbps exceeds user demand

A wired or wireless broadband connection capable of 100/20 Mbps is **more than sufficient to allow an entire family to operate online simultaneously** (CTIA, 2021).

Broadband usage is asymmetrical

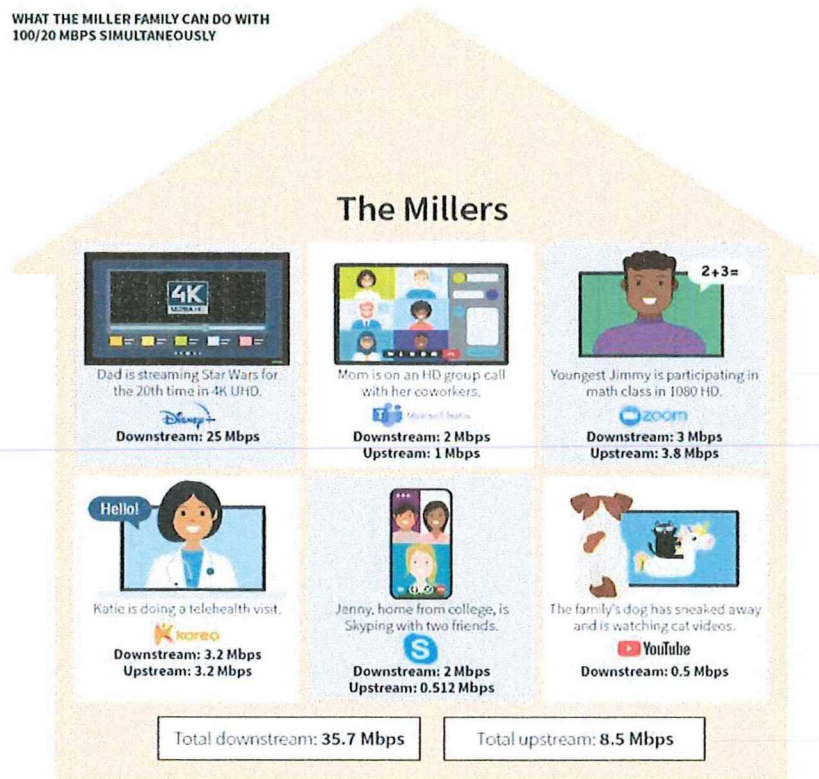
Demand for service and speed is not symmetrical. In fact, while we have seen upstream demand increase throughout Covid, **average download demand was 14x upload** in December 2020 (OpenVault, 2021).

5G fixed wireless is cost efficient with a fast rollout

Existing wireless macro towers can be **upgraded quickly** with minimal investment.

New macro towers or small cells can be deployed at a **much lower cost per household** than typical fiber project costs.

WHAT THE MILLER FAMILY CAN DO WITH 100/20 MBPS SIMULTANEOUSLY

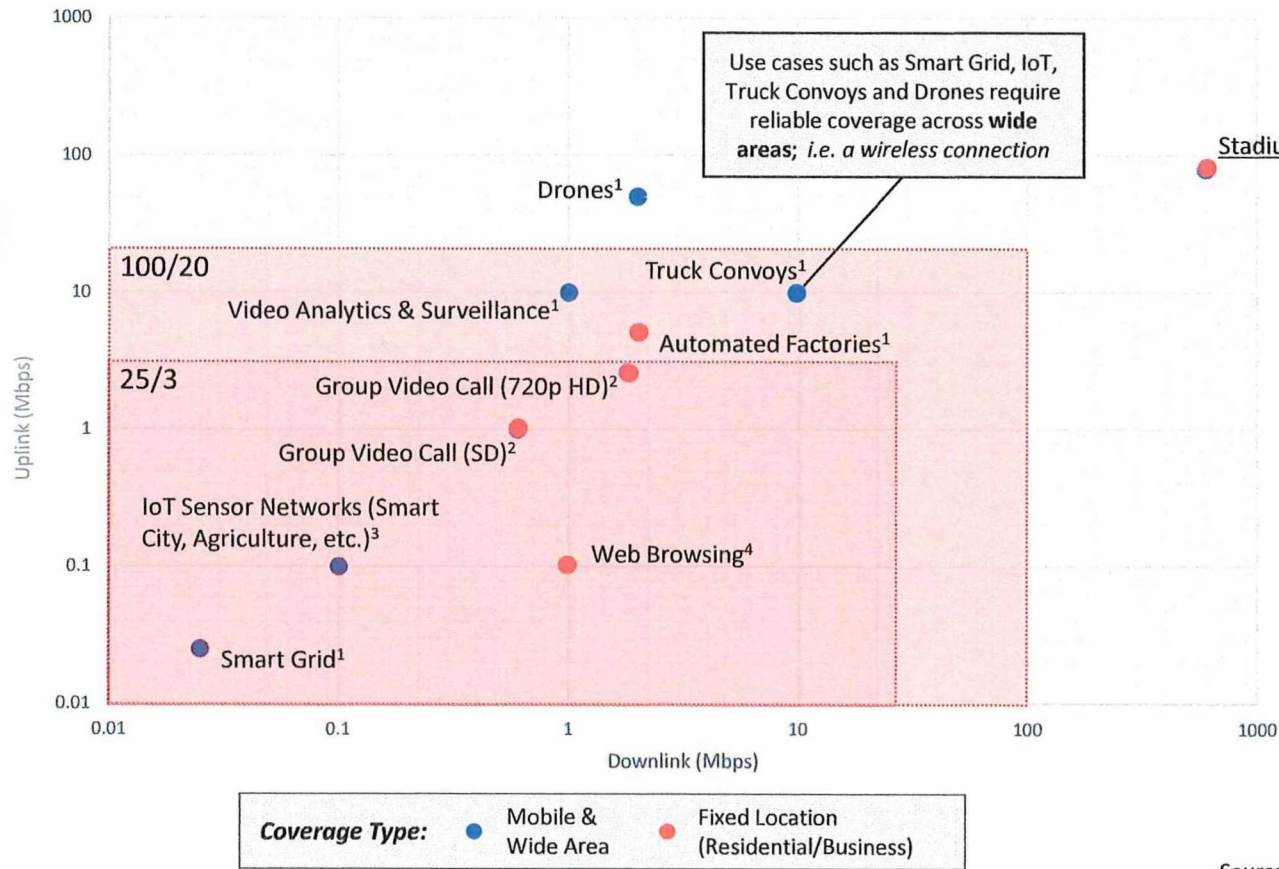


While past funding programs have heavily favored fiber projects, the **technology-neutral IJA broadband program** provides an opportunity to **prioritize last-mile solutions**, filling the gaps where fiber cannot effectively reach..

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100/20 Mbps supports nearly all use cases

Fixed & Wireless Broadband Use Cases: Downlink vs. Uplink Speed



The measure of broadband equity between urban and rural residents is not accessibility to the highest speeds but the **ability to leverage the same use cases.**

A service level of 100/20 is sufficient for the use cases that businesses require to compete in today's global economy.

Sources:

- 1. Bell Labs Consulting, 2. Zoom, 3. 5G Americas, 4. Credit Suisse



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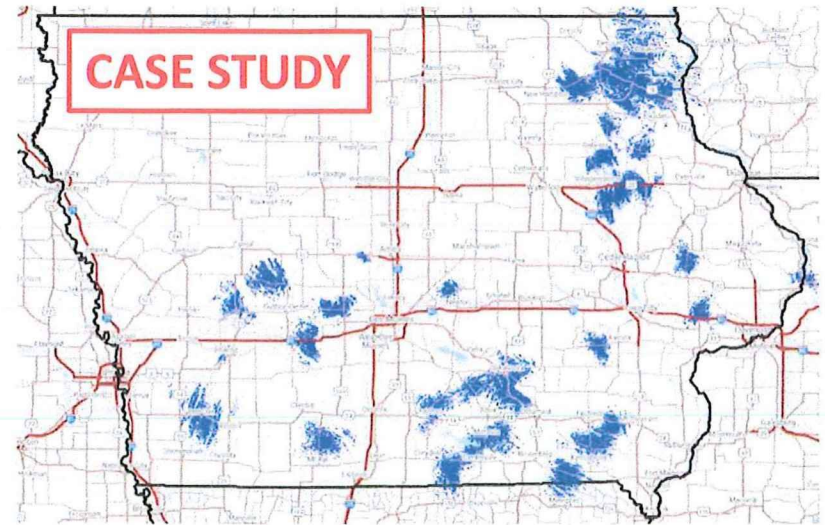
Wireless Broadband can be deployed with faster time-to-market and lower costs.

Leveraging existing wireless macro towers provides an unparalleled platform from which to cost-effectively deliver competitive fixed and mobile Broadband services

▶ UScellular's portfolio of towers can be upgraded quickly, with minimal investment, and without laying new fiber

Recently, UScellular was proud to partner with the state of Iowa to provide improved Broadband access to over 3,300 sq. miles and 37,000 households as part of the state's Empower Rural Iowa NOFA #003 program.

At **under eight months** from Award to deployment and just **\$142 per location** served, this program was both timely and cost-effective.



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EXECUTIVE DIRECTOR – Thomas Moore

Statement of Tom Moore
Executive Director, Wisconsin Cable Communications Association
Before
Assembly Committee on Energy and Utilities
Speaking for Information regarding Assembly Bill 573

Good afternoon Chairman Kuglitsch and Committee members. Thank you for the opportunity to testify for information regarding Assembly Bill 573 today.

I serve as the Executive Director of the Wisconsin Cable Communications Association. We are the state trade association for Wisconsin cable, broadband and voice providers. Our members provide these services to roughly 900 Wisconsin communities and include household names like Charter Communications and Comcast as well as smaller regional and community systems like Lakeland Cable and Astrea. We have invested billions of dollars in Wisconsin to deploy advanced digital services to over 2 million locations in the state and we continue to invest hundreds of millions of dollars each year to extend, upgrade and service our digital networks.

We recognize the value of reliable cellular service on state and interstate highways, particularly as it relates to issues of public safety.

Assembly Bill 573 seeks to address cellular gaps on state and interstate highways by creating a specific subsidy within the existing Broadband Expansion Grant program administered by the state Public Service Commission. The bill's provisions would also provide for grants to be made available to expand wireless broadband services in the same areas of eligibility.

Assembly Bill 573's broadband grant provisions overlap with those of existing program, but limit grant applicants to wireless service providers. In doing so the bill upends the principle of technological neutrality which has been an important feature of Wisconsin's Broadband Expansion Grant program. In today's grant program, both wireline and wireless providers are eligible to apply for grant funding and Commissioners have awarded grants to providers offering both types of technologies.

It seems that if the goal is to minimize gaps in cellular coverage on state and interstate highways it would be better to separate the program from the Broadband Expansion Grant program. As it is, the bill draft is confusing in its references to cellular and wireless broadband service which are often not the same product. For example, on page 2, line 7 the Commission must prioritize projects that expand wireless broadband service *or* cellular service but on line 11, the Commission must ensure a project provides wireless broadband *and* cellular service. If the goal is to fill in cellular coverage gaps on state

and interstate highways, it should focus on cellular service. The existing Broadband Expansion Grant program is already focusing on broadband access.

Another of our concerns with a proposed state subsidy program like this is that government funding could end up supporting facilities that duplicate existing broadband service offerings. This bill does not have protections to limit public subsidies for projects which could end up competing with existing broadband infrastructure. We believe as a fundamental principle that public resources should not be deployed in competition with services funded and maintained by at-risk private sector capital.

AB 573 also contains provisions related to broadband reporting and mapping and we generally support mapping and reporting requirements which are consistent with the format and requirements of the newly created Broadband Deployment Accuracy and Technological Availability Act administered by the FCC.

We have two suggestions for this section:

1. We would like to see it include language which allows the Commission to keep confidential the data submitted by providers. While the Commission staff will utilize the data to produce accurate broadband maps, we believe it is important to allow providers to keep certain facility and address level data confidential.
2. We would like the data submissions and maps to reflect cellular coverage in addition to broadband service coverage. This bill is about cellular and wireless coverage but the mapping component lacks cellular mapping component. It seems that this would be a necessary addition to the bill and for the operation of the grant program.