

WSTA UPDATE

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WSTA Update March 20, 2017

Legislative and Political

Senate Bill 49 and Assembly Bill 123 are moving through the Legislative process

SB49 and AB123 will significantly increase the funding for the <u>Broadband Expansion Grant Program</u>. As proposed, the legislation will eliminate the \$1.5 million annual cap on the grant program and provide a projected \$15.5 million for future grants. The companion bills incorporate the Legislative Council Study Committee on Rural Broadband's recommendations for priority criteria and definitions used by the Broadband Expansion Grant Program to make grant awards. The bills also prohibits the Department of Natural Resources (DNR) and the Department of Transportation (DOT) from requiring any appraisal or charging any fee prior to granting an easement for construction of broadband infrastructure in underserved areas. Both bills are moving through the legislative process relatively quickly. SB49 already passed out of committee on a 5-0 vote. AB123 has a public hearing on March 21, 2017. It is possible that both the Senate and Assembly will pass the bill in April.

Governor Walker Appoints Lon Roberts to the Public Service Commission

Governor Scott Walker today announced the appointment of Department of Financial Institutions (DFI) Secretary Lon Roberts to the Public Service Commission (PSC). Mr. Roberts will fill the seat being vacated by PSC Commissioner Phil Montgomery whose term ends on March 1, 2017. "Lon has been an outstanding addition to our administration at the DFI, and I know he will continue to serve the state well at the PSC," Governor Walker said. "I thank Phil Montgomery for his many years of dedicated service to our state at the PSC and as a member of the State Legislature." Lon Roberts was appointed DFI secretary in February 2016. He previously served as a partner and shareholder with the Ruder Ware law firm in Wausau, where he served as president and concentrated his practice in business and commercial law, primarily in the areas of corporate mergers and acquisitions, finance, lending, and private equity capital transactions. He also served as chair of the State of Wisconsin Investment Board and as a committee member of Governor Walker's Judicial Selection Advisory Committee.

Sen. Baldwin Visits the Northwoods

U.S. Senator Tammy Baldwin stopped in the Northwoods Saturday, first meeting with supporters in Rhinelander, then traveling to Northland Pines High School in Eagle River to participate in a broadband

roundtable at the school and see their Fab Lab. Sen. Baldwin says while talk of cutbacks in the federal budget are being worked out, she's optimistic that funding for high-speed internet will continue. She admits there are large challenges in the proposed federal budget.

Senator Testin: Putting priority on rural Wisconsin

The Rural Wisconsin Initiative is a growing package of legislation that focuses on improving access to health care, technology, education, and workforce opportunities in the rural parts of our state. It was developed last year by Reps. Ed Brooks (R-Reedsburg), Romaine Quinn (R-Rice Lake), and Travis Tranel (R-Cuba City). It grew to be embraced by 26 state Representatives, and four Senate partners – including me. The package strives to provide equality of opportunity to all Wisconsin residents, whether someone lives in Milladore or Madison, Sparta or Sun Prairie. One of our principal focuses is rural broadband expansion.

Senator Vinehout: Broadband expansion: rural Wisconsin needs the real deal

"All we seek is help to get the basic broadband services that you all take for granted," Justin Fortney from Clifton Township in Pierce County wrote to me. "It has been frustrating for us families to watch the digital revolution pass us by...We often...pack the family into the car and drive to a relative's house or commercial business to use their Internet." According to the federal government's most recent information, Wisconsin ranks last in the Midwest in both rural and urban broadband access with only 44% of rural folks accessing download speeds of 25 Mbps.

Rep. Ron Kind decides against run for Wisconsin governor

Democratic Rep. Ron Kind said Friday he has decided not to run for governor in Wisconsin, saying that he wants to focus on protecting his district in Congress. "Recently, many Wisconsinites have come up to me in the grocery store, at the YMCA, at basketball games, and during my travels throughout Wisconsin to encourage me to run for governor," Kind said in a statement. "... I am extremely humbled and appreciative of their trust, confidence, and support. However, after much consideration and consultation with my family, I've decided that I will not run for governor in 2018.

Duffy not running for Senate in 2018

Rep. Sean Duffy (R-Wis.) said on Thursday that he is not running for Senate in 2018. "After much prayer and deliberation, Rachel and I have decided that this is not the right time for me to run for Senate," Duffy said in a statement. "We have eight great kids and family always comes first." Duffy said in the statement that incumbent Sen. Tammy Baldwin (D-Wis.) will "be beat because her radically liberal Madison record and ideas are out of synch with Wisconsin."

Regulatory and Industry

ACA & NTCA Call Foul on Charter Overbuild Conditions for One Million Broadband Locations

The American Cable Association (ACA) and NTCA – The Rural Broadband Association are not giving up on their opposition to an FCC decision last year that calls for Charter to overbuild one million locations that already have broadband service available to them at speeds of at least 25 Mbps. The decision was made as a condition of FCC approval of Charter's acquisition of Time Warner Cable and Bright House Communications. The Charter overbuild conditions also included a requirement to deploy broadband to an additional one million

locations that do not already have service. Both ACA and NTCA contacted the FCC this month to urge the commission to eliminate the overbuild requirement.

The crucial service Trump left out of his massive infrastructure goals, and how the FCC wants to fix it

When politicians talk about infrastructure, they typically mean the basics: Roads, bridges, ports. The electric grid. Maybe rail, if it's lucky. But America's top telecom regulator wants the government to expand that thinking by including a type of network that 3 out of 4 Americans use on a daily basis, but doesn't often make it on the politicians' lists: high-speed Internet. "If Congress moves forward with a major infrastructure package, broadband should be included," said Ajit Pai, chairman of the Federal Communications Commission, in a speech Wednesday in Pittsburgh. Pai is proposing an ambitious program whereby the FCC could expand corporate subsidies for building networks while scaling back regulations that, he said, deter private investment. In addition, Pai is asking that Congress offer tax credits to Internet service providers and entrepreneurs who agree to set up shop in "gigabit opportunity zones" that could be as large as a county or as small as a city block.

FCC Approves \$453M in Annual Mobility Fund Phase II Support, Reporting Exemptions

Chairman Ajit Pai's FCC on Thursday accomplished something former Chairman Tom Wheeler hoped to, but couldn't when it unanimously voted to approve nearly \$2 billion in funding for the Commission's Mobility Fund Phase II program over the next decade. The Order adopted by the Commission will provide \$453 million in annual support for the next ten years to help expand and preserve 4G LTE coverage across some of the 575,000 square miles of rural America and Tribal lands that currently lack the service. The money will be awarded via an auction process to winning bidders to build out and maintain LTE in areas where the market can't sustain or extend the service without government help. Funds will be distributed in monthly installments over the course of ten years of support, according to the FCC's Order.

CFO: TDS Telecom Fiber Take Rates Exceed Expectations

TDS Telecom fiber take rates are exceeding expectations in the 28 markets where the company has deployed fiber to support broadband service at rates up to 1 Gbps, said Vicki Villacrez, chief financial officer for the company, in a presentation at a financial conference yesterday. These take rates helped drive an overall 14% growth rate in the company's broadband connections in the company's fourth quarter 2016 results. About 22% of TDS service addresses have broadband service over fiber available to them, Villacrez said. Those include the some of the company's "most attractive" markets, where it faces competition from cable, she noted. "We've been very careful about where we deploy [fiber] on a neighborhood by neighborhood basis, where the demographics are" most favorable, she said.

Sun Prairie city-owned broadband service comes with \$2.9 million debt

News stories of the looming sale of Sun Prairie's debt-heavy broadband service included every salient detail but two: The public cost to build and maintain the system. TDS Telecommunications Corp. and Sun Prairie Utilities have signed a "non-binding letter of intent," with hopes to "hammer out terms of the agreement and finalize it" by the end of this month, according to a story published Feb. 6 in the Wisconsin State Journal. Missing from the story was the nearly \$2.9 million in estimated debt the municipal broadband communications service carried at the end of 2016. The city-owned internet service provider has lost money, often significant amounts, in at least 10 of the 16 years in operation, according to financial records obtained by Wisconsin Watchdog through an open records request.

Report Reinforces 5G Fiber Backhaul Opportunity for Fiber Network Operators

The importance of 5G fiber backhaul far outranks other backhaul options including copper, microwave, freespace optics and millimeter wave technologies, according to a report from the Telecommunications Industry Association (TIA). All operators surveyed said fiber was important for 5G backhaul, including 83% who said it was "very important." The report underscores what industry observers have been saying since plans for 5G began to cement several years ago. In order to deliver considerably higher bandwidth, 5G networks will use much higher frequencies in comparison with current networks, which means range will be less than with current technology – making high-speed backhaul critical.

IDC: Digital transformation tech spending to hit \$1.2T this year

International Data Corporation updated its "Worldwide Digital Transformation Spending Guide" to forecast global spending on digital transformation tech will reach \$1.2 trillion this year, a 17.8% increase over 2016 per a company press release. The forecast estimates almost half of all digital transformation tech spending will happen in three categories: connectivity services, IT services and application development & deployment. The fastest growth will come from retail, healthcare providers, insurance, and banking

Broadband and Internet

Could Unlimited Mobile Data Kill Home Broadband?

Cord cutting has been something of a well-defined trend in cable TV for some time now, while wired home broadband has managed to hold on as a staple of connected life. But a new survey from ReportLinker suggests that could change in the near future as mobile broadband connections take over. According to ReportLinker's findings, though 59 percent of respondents use a regular residential broadband connection, nearly 40 percent of consumers now connect to the internet at home via mobile. And the results were even more skewed when broken down by age brackets.

Latest USDA Rural Broadband Loans Announced, Nearly \$20 Million Will Fund Fiber Upgrades

Acting U.S. Deputy Under Secretary for Rural Development Roger Glendenning today announced the awarding of \$19.3 million in USDA rural broadband loans to roll out service in rural parts of Illinois and Oklahoma. Among the loan award winners, Southern Plains Cable, LLC will receive a \$15.3 million loan to build a fiber optic broadband network that is to serve customers across a 55 square mile area that includes the communities of Anadarko, Verden and Chickasha, Oklahoma. Illinois' Moultrie Independent Telephone Co. will receive a \$4 million loan to upgrade its fiber network and service in a portion of its territory.

New York's Multi-Million Dollar Broadband Program Expands to Rural Four-County Area

The state's multi-million dollar Broadband Program, which awarded grants to provide thousands of consumers with access to high-speed broadband for the first time, includes projects in a rural four-county area. Round II of the New NY Broadband Program also will leverage private matching funds, according Gov. Andrew Cuomo who announced details in media releases Tuesday. In total statewide, Round II will drive \$268 million in public-private investment and support 54 projects that will reach 89,514 homes and institutions in unserved and underserved communities, the release said. With upstate upgrades being carried out by Charter under mandates from the state Public Service Commission, Round II awards will ensure that 98 percent of New Yorkers will have access to the high-speed broadband, which officials said is needed to succeed in a modern economy.

Hughes Network Systems Is Launching High-Speed Satellite Internet for North America

According to the FCC, about 48 million households in the U.S. have internet speeds of less than 25Mbps - that's about 46% of total internet installations in people's homes. Which means that a lot of internet services that many take for granted can become prohibitively slow in a good chunk of the country. In part, that's because of technology - it takes time (and money) to build out fiber that can be used for fast internet services. And in some places, fiber buildouts are expensive because of too low population density or simple geography. Hughes Network Systems, one of the biggest satellite internet providers, wants to change that. Last December, the company launched their EchoStar XIX satellite. And now that the satellite is safely in orbit with all systems go, the company intends to use that satellite to vastly speedup their existing internet service. This month, they'll be offering satellite internet plans featuring a 25 Mbps downloads and 3 Mbps uploads, under their new HughesNet Gen5 service.

US 14th Worldwide With Average Broadband Speeds of 17.2 Mbps

The average US broadband connection was 17.2 Mbps in the fourth quarter of 2016, according to the latest Akamai "State of the Internet" report. The full report notes that this was a jump of 5.5% over the previous quarter and a 21% increase year over year (largely thanks to DOCSIS 3.1 cable upgrades and some modest gigabit fiber deployments). Roughly 90% of US broadband users (around 88%) connect at speeds above 4 Mbps, but only 63% connected at speeds above 10 Mbps and just 42% connected at speeds above 15 Mbps. In other words, a huge chunk of the country is paying for broadband that still doesn't meet the FCC's baseline 25 Mbps down, 3 Mbps up broadband standard. Akamai notes that seven states saw quarterly declines in average connection speed, ranging from a loss of 1.0% in Indiana (to 16.2 Mbps) to a loss of 7.4% in Utah. Idaho and West Virginia are also singled out as broadband laggards. Idaho saw the slowest speeds in the nation, connecting to Akamai at an average of 11.9 Mbps, up 5.8% from the third quarter.

Cellular and Wireless

AT&T Cuts Prices and Adds New Features to Its Unlimited Data Plans

The competitive pressure in the wireless market just keeps growing. On Monday, AT&T announced a lower price and a series of promotions and improvements for its unlimited mobile data plan, which was just made available to all customers last week. To start, the unlimited plan will now cost \$90 for the first line, a \$10 price cut. The move comes as Verizon finally introduced its own unlimited plan under pressure from smaller carriers Sprint and T-Mobile, which started emphasizing cheaper unlimited plans last summer. Wireless customers have long hated the monthly data allowances, which forced them to guess in advance how much data they'd use and face hefty fees if they went over.

U.S. consumers now spend 5 hours per day on mobile devices

The time U.S. users are spending in mobile apps is continuing to grow; according to new data released this week by analytics firm Flurry, we're up to 5 hours per day on our mobile devices. This follows on news from January that said the time spent in mobile apps had increased 69 percent year-over-year. Five hours per day is a 20 percent increase compared with the fourth quarter of 2015, and seems to come at the expense of mobile browser usage, which has dropped significantly over the years.

How AI will lead to self-healing mobile networks

Today we are routinely awed by the promise of machine learning (ML) and artificial intelligence (AI). Our phones speak to us and our favorite apps can ID our friends and family in our photographs. We didn't get here overnight, of course. Enhancements to the network itself – deep, convolutional neural networks executing advanced computer science techniques – brought us to this point. Now one of the primary beneficiaries of our super-connected world will be the very networks we have come to rely on for information, communication, commerce, and entertainment. Much has been written about the "networked society," but on this transformative journey, the network itself is becoming a full-fledged, contributing member of that society.

IPTV and Video

LRG: More U.S. Homes Have Netflix than DVR

New research from Leichtman Research Group (LRG) has found that 54 percent of U.S. adults report that they have Netflix in their household, while 53 percent have a DVR. This is the first time that households with Netflix (including those sharing passwords) have surpassed the level of those with a DVR. In 2011, 44 percent of TV households had a DVR and 28 percent had Netflix. In total, 82 percent of U.S. TV households have a DVR, get Netflix, or use VOD from a cable or telco provider, with 30 percent of homes using two of the services, and 14 percent using all three.

LRG: Gutting of AT&T U-verse Sinks Telco Video Momentum, Cable and OTT Rejoice

The nation's leading cable TV providers experienced the lowest number of annual video subscriber losses since 2006 last year, the year telcos first introduced video services, according to the latest from LRG (Leichtman Research Group). The nation's six largest cable companies lost some 280,000 video subscribers in 2016, a far cry from losses of around 410,000 in 2015 and 1.2 million in 2014. Meanwhile, the telco pay-TV subscriber base decreased. Subscriber losses among the largest U.S. telco video services spiked in 2016, totaling 1.55 million. That compares to losses of about 120,000 in 2015 and a gain of about 1.065 million in 2014, LRG highlights. AT&T's U-verse lost about 1.359 million subscribers last year as compared to some 300,000 in 2015. LRG attributed the surge to AT&T phasing out U-verse in favor its higher margin DirecTV brand video services.

Cord-Cutting on the Rise, TiVo Study Finds

Mirroring other recent findings, the number of consumers who are cutting the cord for traditional pay TV services is on the rise, according to a new quarterly report from TiVo. Of the 17% of consumers without a pay TV provider, 19.8% of that group said they cut the cord in the past year, up 1.9% on a quarter-to-quarter, and up 2.3% on a year-over-year basis, the company found it its Q4 2016 Video Trends Report, based on a survey of 3,079 adults in the U.S. and Canada.

Roku hit 1 billion streaming hours in December

If you have one of the many modern and tiny streaming set-top boxes then chances are it may be a Roku. There are others on the market from Amazon, Google and Apple and plenty that have failed. Roku got in early and gained traction. So much traction, in fact, that it has been showing some pretty serious numbers regarding how it is doing in the market. Now the company is announcing a milestone -- one billion hours of streaming in December alone, and nine billion for the year 2016. That's a huge amount of viewing time. The numbers were reported by Neilsen.