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FEATURES



Building a Brighter Future for Rural America

18

BY ASHLEY SPINKS

Seven years ago, NTCA launched the Smart Rural Community (SRC) program to promote member achievements, offer grants for innovative pilots and create educational programming that could benefit those in the rural broadband industry. As the program continues to evolve, we highlight the dedication of the SRC Showcase Award winners—the members who best exemplify rural broadband innovation—and the way they have advanced their communities.

22 Racing to Meet the Speed Testing Deadline BY MASHA ZAGER

Beginning in the third quarter of 2019, providers must follow a detailed testing and reporting protocol to measure speed and latency between customer premises and one of 16 approved internet exchange points. We talk to equipment vendors and rural broadband providers to find out how they're tackling the challenge of meeting the FCC's deadline.



28 RTIME 2019 Charts a Revolutionary Course for Rural Broadband

Themed "Revolution," this year's iteration of NTCA's annual RTIME featured not only several new elements—including an updated EXPO and EXPO Live!, off-site regional caucus meetings, and anniversary celebrations for both the Foundation for Rural Service and the NTCA Rural Broadband PAC—but also an appearance by FCC Chairman Ajit Pai, who took part in a "fireside chat" with NTCA Chief Executive Officer Shirley Bloomfield.

IN EVERY ISSUE

- The Wire **5**
News and Moves in the Rural Broadband Industry
- #RurallsSocial **9**
- Connecting the Dots **13**
BY SHIRLEY BLOOMFIELD
- A Few Questions for Amy Harrelson **14**
BY CHRISTIAN HAMAKER
- Advertisers Index **41**
- Trending **42**
BY CHRISTIAN HAMAKER

DEPARTMENTS

- Training Days **34**
How Real-Time Data Can Revolutionize Your Board: A Q&A With Dottie Schindlinger
BY MARK MARION
- Benefits **36**
Technology in Motion With *My NTCA Benefits*
BY BETH F. FARMER
- Risk Manager **38**
Don't Get Hooked by Phishers
BY PETER J. ELLIOTT, CPCU



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NTCA represents more than 800 small, rural, locally owned and operated broadband companies in the United States and abroad, as well as state and regional telephone associations and companies that are the suppliers of products and services to the small and rural broadband industry. Our readers are the managers, directors, attorneys and key employees of these telephone companies, as well as consultants, government officials and telecommunications experts.

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News and Moves in the Rural Broadband Industry

By Christian Hamaker

SURGE OF STREAMING SERVICES COULD LEAVE CONSUMERS ADRIFT

Remember when Netflix was the only streaming service? Those days are long gone. Now there's Amazon Prime, and later this year there will be services from Disney, Apple and WarnerMedia. But how much content is too much? And how much will consumers be willing to pay for these proliferating streams of content?

"Audiences are about to face more choice—and may soon have to shell out more subscription fees depending on their interests, as content is splintered across more services," wrote Michael Schneider at Indiewire.

Garth Ancier, a former Fox/WB/NBC/Turner/BBC America executive, is skeptical of the streaming surge. On his LinkedIn page, Ancier posted, "We have the 800-pound global gorilla Netflix, Amazon Prime ... Hulu trying to figure out who they are ... with 'DisneyFlix' (Disney's family-friendly streaming service built on Disney and Fox's assets) readying for launch, and Apple spending billions on a new video service. Is this really the time for WarnerMedia to ape the others? Launching these SVOD services takes a long time, and huge amounts of cash and skill. And the foundation of 'WarnerFlix' is HBO? Isn't that what HBO Now is today?"

Source: indiewire.com



STREAMING STRESS: 'YOU'RE GOING TO HAVE TO KNOW WHERE TO FIND IT'

The drumbeat of concern about the increase in streaming content continued in Wired.

"The notion that streaming services might someday totally supplant the monolithic cable package has glittered on the horizon for years now," wrote Rian Barret. "But as that future becomes increasingly the present, an uncomfortable reality has set in: There's too much. To Netflix, Amazon Prime, Hulu, and HBO Now, add WarnerMedia, Disney, and Apple as omnibus, general interest streaming destinations. Investors have poured a billion dollars into something called Quibi. ... And the niche options continue to proliferate as well, whether it's DC Universe or College Humor. If we're not at the breaking point yet, we're surely about to find it."

A la carte services are "starting to look more like a series of pricey buffets. Competing megacorporations are all pumping billions into original content, much of it designed for mass appeal. ... And even if each also produces more experimental or idiosyncratic options, you'll be hard pressed to access all or even most of them. The show that scratches your itch won't necessarily be on a platform you can afford to pay for."

Source: wired.com

RURAL NEWSPAPERS: AN ENDANGERED SPECIES?

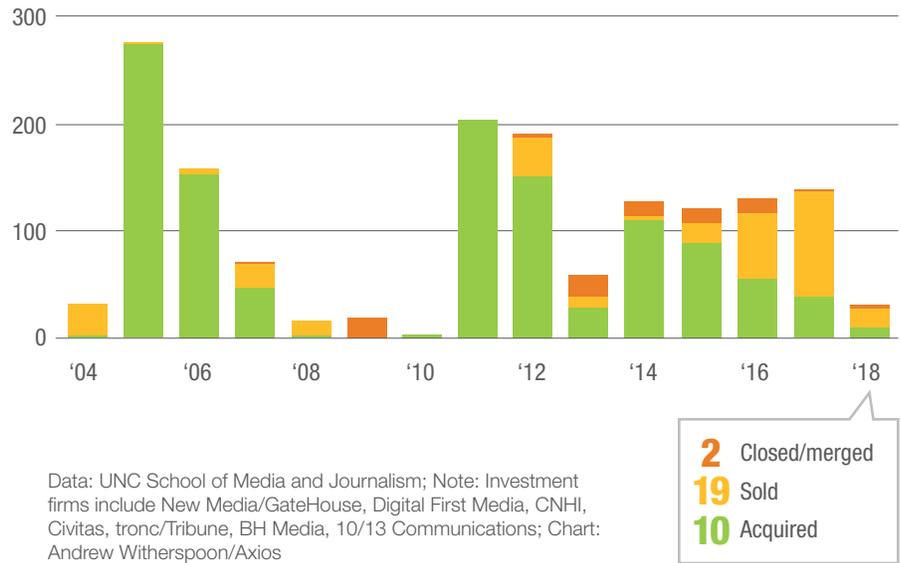
Parts of rural America may soon become news deserts.

A recent study by the School of Media and Journalism at the University of North Carolina (UNC) shows that almost 1,800 local newspapers have closed or merged since 2004, leaving between 1,300 and 1,400 communities with no dedicated news coverage.

“Because of the isolated nature of communities in which many papers have dissolved, “there is little to fill the void when the paper closes,”” wrote Sara Fischer, referencing the UNC report.

Source: *axios.com*

Newspaper Transactions by the Seven Largest Investment Owners



ARE YOU A 401(K) MILLIONAIRE?

How's your 401(k) balance? Before the late-2018 market swoon and subsequent early-2019 rebound, Fidelity Investments said the average retirement account balances had reached record highs.

Averages for 401(k) plans, individual retirement accounts and 403(b) “are nearly double from where savers were a decade ago, at the start of the financial crisis,” wrote Kelli B. Grant. “The average employee contribution reached its highest level since late 2006, at 8.7%, and average rates among women hit a record of 8.5%.”

Along with a record number of savers has come a record number whose balances top \$1 million. 401(k) millionaires number 187,400—up 41% from last year, while IRA millionaires number 170,400, up 25% from last year. Most of those millionaires had been saving for more than 30 years.

Source: *nbr.com*



The Average Employee Contribution

8.7%



The Average Rates Among Women

8.5%



401K Millionaires

187,400

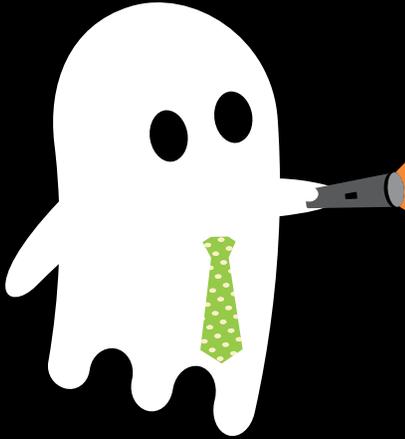
41%

IRA Millionaires

170,400

25%

WHEN YOUR EMPLOYEES GHOST YOU



“Ghosting” is no longer limited to dating. It’s infiltrated the workplace.

A term previously relegated to the dating world, in which a person “disappears” from a relationship, ghosting now describes “a situation in which a worker stops coming to work without notice and then is impossible to contact,” according to the Beige Book from the Federal Reserve Bank.

“Employers should know that it can happen at any time—after a job interview, after a hiring, or even after someone has started on the job,” wrote Lila Maclellan. “Anecdotal reports suggest that it’s happening in various categories of jobs. It’s becoming more common not only at restaurants and hotels, where you’d expect a high turnover rate, but also in offices.”

Source: qz.com



What do men do with their leisure time? Government data shows that men have a half-hour of additional leisure time than do women, and they use it largely to watch TV.

Some of men’s leisure time “is spent socializing, exercising and simply relaxing, among other things,” wrote Joe Pinsker. “But ‘about half of the gap is from TV,’ said Liana Sayer, a sociologist at the University of Maryland and the director of the school’s Time Use Laboratory.”

Source: theatlantic.com

READY FOR LUNCH? STAY AT THE OFFICE.

If employers are trying to keep their workers on-site, they’d do well to consider giving them free food.

Offering free food to employees grew more popular in the 1990s, as Bloomberg and Google started providing snacks for their workers. “But today, the practice is almost obligatory, as businesses go to extraordinary lengths to provide food without charge, or at a sharp discount,” wrote Priya Krishna. “The offerings have grown in size, scope and specificity—some tailored to a company’s mission, others unwittingly reflective of it and still others that seem oddly random.”

Internet food guide Thrillest gives its workers cinnamon-raisin bread, with six toasters available to warm the bread, while Pop-Tarts and Slim Jims are preferred by workers at media company Slate. Employees are alerted by a special emoji on Slate’s Slack channel whenever the snacks are restocked.

Source: nytimes.com



EMPLOYER HEALTH COVERAGE ON THE RISE

Employer-provided health care is on the rise again.

After declining during the Great Recession, employer-provided health coverage for people under 65 is growing. Between 2013 and 2017, such plans added 7 million people—“nearly as many as the 10 million people who were covered through the Affordable Care Act’s (ACA) marketplace last year,” wrote Drew Altman at the Kaiser Family Foundation.

“Both a stronger economy and the ACA’s individual and employer mandates are likely reasons for the increase,” Kaiser wrote. “The increase means that 156 million people were covered by employer-based insurance in 2017. That makes it by far the single largest form of coverage, followed by Medicaid at 74 million.”

156 million
people were
covered by
employer-based
insurance in 2017

Source: axios.com

COMINGS AND GOINGS



Jason Shelton is the new general manager (GM) at Loretto Telephone Co. Inc. (Loretto, Tenn.).



Frank G. Boscarillo is the new GM at GTEL (Germantown, N.Y.), replacing Jason Shelton.



Scott Nyman is the new GM at Wittenberg Telephone Co. (Wittenberg, Wis.)



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 @USDA

Congratulations to Anne Hazlett who today was announced as the White House @ONDCP's Senior Adviser for Rural Affairs. We are happy to see her take on this new opportunity where she can focus on building healthy & prosperous rural communities!

 @NRHA_Advocacy

Michael Daniels, Director of Govt Affairs @NTCAconnect, wrote about our conversation at #NRHAPolicy19: "Broadband availability and access to quality health care are inextricably linked. However, that link remains broken in too many places." #RebuildRural



 @SenJohnThune

Great to see @AjitPaiFCC today. Look forward to continuing the work of protecting internet innovation and improving connectivity for rural Americans.



 @RepVeasey

Sprint and T-Mobile argue that a merger would improve service in rural areas but dodged the question whether cost will increase, and how they plan to expand broadband access in communities of need.

 @JRosenworcel

Year-in and year-out #robocalls are the single largest subject of consumer complaints at the @FCC. So isn't it time to do more to prevent them? I think the @FCC should set up an enforcement division to stop robocalls—and now is the right time to do it.

 @NTIAgov

The American Broadband Initiative is a reflection of a government-wide mission: Ensuring that all Americans have access to affordable, high-speed broadband.

 @connectednation

Dept. of Interior @Interior launches a new effort to facilitate #broadband development in rural America.

 @FCC

Today, Chairman @AjitPaiFCC visited @OchsnerHealth in Louisiana for a #telemedicine tour to discuss the importance of how #technology improves access to healthcare to help bridge the digital divide.





5 Ways to Monetize Branded Email Hosting

Most rural telcos provide an email service to their customers, but they don't make the most of that opportunity. They offer an outdated email interface, pay little attention to the user experience, then wonder why customers complain and won't pay extra.

Did you know that switching to a more modern email platform, that offers an enjoyable customer experience, can **help lower your churn** and deliver a **3x revenue boost**? Plus, it can provide direct opportunities for you to **monetize your email** and recoup costs.

5 ways to monetize your branded email hosting include:

1. PAID EMAIL

This option typically sees a (residential or business) customer pay a monthly email service fee. Customers of this option pay for email because:

- **User experience**—they enjoy the email experience of a particular telco and are happy to pay for that value;
- **Identity**—their email is their identity and they would rather pay to keep it with their current telco than to move it;
- **Convenience**—it is easy for them to keep all their services with one provider;
- **Trust**—they trust their current telco to convey and store their messages securely;
- **Privacy**—they value privacy and want to avoid the big data algorithms that other companies use to 'read' personal emails; and/or
- **Professionalism**—they want their business email to have its own branding.

2. UPSELL

Email subscribers are often seeking premium add-ons to their service. If customers value their email service and the data stored in their email service, they may be happy to pay for ancillary email services, including:

- Extra cloud storage;
- Additional email addresses;
- Premium antispam and antivirus solutions; and/or
- Ad-free environments.

3. CROSS-SELL

With a captive email audience, it's easier to cross-sell complementary services, such as:

- Home (and business) phone and internet;
- Mobile phone plans;
- Website hosting, building, backup and security;
- Domain names and management;
- SSL certificates; and more.

4. IN-APP ADVERTISING

Gone are the days of ugly, flashing advertisements sending shivers down customers' spines. Today's premium email options offer sleek and discreet in-app advertising, attractive to both customers and third-party advertisers.

5. INDIRECT MONETIZATION

Whether the customer email offering is free or paid, some telcos and ISPs that have upgraded to a modern, user-friendly email system are now enjoying increased customer engagement and brand loyalty, as well as a 3x revenue boost across their portfolio.

Maddison Selleck, Chief Business Development Officer at VentralP, Australia's largest, privately-owned web host and domain registrar says, "Our premium email customers are also the ones who pay for SSL certificates, premium VPS hosting and so on. We estimate that **these [email] customers spend around three times more** across our entire service portfolio and are therefore important for growing revenue."

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Connecting the Dots

By Shirley Bloomfield,
Chief Executive Officer, NTCA



A BRIEF VICTORY LAP

This year's Rural Telecom Industry Meeting and EXPO (RTIME) was a big success—an opportunity for members to network, observe some stellar educational sessions and discuss the future of the rural broadband industry. It was an honor and a joy to welcome FCC Chairman Ajit Pai to New Orleans as he took a “victory lap” on last December's crucial Universal Service Fund (USF) budget order. The chairman arrived to a standing ovation, and I conveyed to him the importance of USF's continued success for those who build rural networks. It was wonderful to have a moment to celebrate, but both the chairman and I know that the work on USF is far from over. Next up is overseeing the thoughtful implementation of the order and ensuring new performance testing obligations create accountability without being burdensome to NTCA members.

THE RATE FLOOR AND MORE

NTCA has reiterated to the commission that a robust, diverse marketplace of speed-testing equipment, as well as clear standards on testing procedures, must be established before performance testing can fulfill its role as an accountability mechanism. We will continue to advocate on these issues, and discuss USF contribution reform and the rural rate floor. As we know, telephone rates for rural consumers are poised to skyrocket absent further FCC action on rate floor policy. This will be an essential fix in the coming months to ensure that rural Americans are paying fair, reasonably comparable rates and that rural carriers can continue to thrive.

2019: INFRASTRUCTURE YEAR?

As Congress, in coordination with the White House, again discusses a possible infrastructure package in the coming year, I'm hopeful that rural broadband will be considered among the top infrastructure priorities. If and when Congress considers funding for rural infrastructure initiatives, NTCA has urged that this money be delivered to programs with proven records of success, such as the U.S. Department of Agriculture's (USDA) Rural Utilities Service and the new ReConnect Program. It is also key that federal agencies, like USDA and the FCC, as well as federal and state broadband deployment programs, are properly coordinated.

BUILDING A NATIONAL BRAND



While NTCA can advocate on your behalf on Capitol Hill, back home it's also important that each and every member company is being mindful about marketing itself and the great work it is doing within the community. As NTCA Board Chairman

Kevin Beyer described in his address at RTIME, our industry needs “to continue building a positive image of what we do.” To that end, NTCA is continuing to build a national brand through the Smart Rural Community program, and we are excited to announce new features of that program soon! ●

The U.S. Senate Commerce Committee held a hearing in February on modern infrastructure needs, including rural broadband.



A Few Questions for Amy Harrelson

By Christian Hamaker



You were recently on an RTIME EXPO Live! panel discussing Pineland's partnerships, including those with electric cooperatives. When did those partnerships begin, and what are the most recent developments with them?

Discussions began in 2015, and for many months it was simply a lot of communication between several entities. Our first true partnership with an electric membership cooperative (EMC) began when we turned up the cities of Vidalia and Lyons (Georgia) with help from Altamaha EMC in January 2017. Since then, we have partnered with three additional EMCs, bringing gigabit-enabled broadband to four previously underserved communities. Several of these communities are using the broadband connectivity now available in their industrial parks to actively recruit and help retain business and promote economic development.

You're Pineland's director of sales and marketing. How long have you been in that position, and what challenges, if any, did you have in marketing these electric-company partnerships to Pineland customers?

I've been working in the marketing position since joining Pineland in 2014, and we began the transition to a sales culture in late 2015.

In most instances, the communities in which we are partnering with the local EMCs are very receptive. Few providers have been available in the past, and none have offered a direct fiber-to-the-home connection with gigabit-enabled broadband connectivity. We have relied very much on the relationships the EMCs have built over the years, and with Pineland also being a cooperative, it's been relatively easy to build a sense of trust in the new areas. We expand our chamber memberships and

Dustin Durden, general manager of Pineland (left center), and Chris Dillard, president and CEO of Jefferson Energy Cooperative (right center), cut the ribbon in Louisville, Ga., on July 27, 2018. Broadband service in Louisville is the first step in the partnership between Pineland and Jefferson Energy that will also bring gigabit-enabled broadband to Wrens, Ga.





Through a collaborative partnership representing three years of effort, Pineland breaks ground in Americus, Ga., on August 7, 2018. Driven by the vision of the One Sumter Economic Development Foundation, Pineland, through a partnership with Sumter EMC, will provide gigabit-enabled broadband and business telephone services in the city of Americus by midyear 2019.

partnerships in the school systems, and we work closely with economic development professionals to encourage growth and industry. We actively engage in the communities we serve.

How have subsidiaries Pineland-Cogentes and Southeast Fire & Burglar Alarm Co. helped the parent company's bottom line?

Quite often as we move into a new service area our subsidiaries have established relationships with some customers. It actually helps when we are the "new kid" on the block to have that trust factor already developed. Technology and security offerings provide a seamless transition to our traditional phone and internet offerings, as well as vice-versa.

FAST AND FURIOUS

What's the best movie you've seen recently?

"Green Book," one of my top five ever!

What music, if any, do you listen to in the office?

Classic Alternative. No one wants me to get to the remote first.

Your favorite website:

Pineland.net, of course, followed very closely by amazon.com.

Best dessert:

Crème Brulee, but since I can't make that—ice cream. ●



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Building a Brighter Future for Rural America

BY ASHLEY SPINKS

Celebrating the Showcase Award Winners of NTCA's Smart Rural Community program as it continues to evolve in 2019.

Building robust broadband networks in rural America isn't easy. Whether stymied by geographic challenges, sparse populations, complicated and costly regulatory hurdles, or a lack of funding, rural broadband companies achieve a remarkable feat every time they expand or upgrade the infrastructure in their service territories.

Seven years ago, NTCA launched the Smart Rural Community (SRC) program to promote member achievements, offer grants for innovative pilots and create educational programming that could benefit those in the rural broadband industry. Five to 10 years ago, suggesting that broadband usage went beyond social media scrolling and gaming was novel. But thanks in part to the SRC program, which has curated real-world examples of rural accomplishments and explained why rural broadband is important, legislators and advocates now know that rural broadband networks—especially those providing fiber connections—can be leveraged to achieve vital ends.

The members that best exemplify rural broadband innovation are the SRC Showcase Award winners. In the words of NTCA–The Rural Broadband Association Vice President of Policy Joshua Seidemann, “I don't think we have a ‘nonsmart’ member out there. But, we have members who are Mensa-grade—brilliantly innovative, driven, creative, rock-solid in their commitment to their communities and their interest in making lives there better.” Those members comprise a class of 69 that are unrivaled by their peers: The association's Smart Rural Community Showcase Award Winners.

As the SRC program continues to evolve, it's worth highlighting—again—the dedication of the Showcase Award winners and the ways they have advanced their communities. We profile a few such winners below.



DTC employees working on a fiber install.

BUILD THE ECONOMY

It's fairly intuitive that broadband connections would enable a more robust economy—businesses that can conduct operations virtually are more efficient than those that cannot, leading to larger profit margins and the capability to hire and expand. But the role of DTC Communications' (Alexandria, Tenn.) fiber broadband network goes beyond e-commerce.

According to DTC Chief Executive Officer (CEO) Chris Townson, per capita annual income averages around \$24,000 in Tennessee at large, and is nearer to \$18,000 in DeKalb County, one of the counties DTC serves. At the same time, Alexandria is right next door to the greater Nashville metropolitan area, and land and home prices in the area are rising quickly. Townson said “[DTC] is mindful of the low-income population in the region we serve and we have to competitively price its services.” Ideally, this will increase broadband accessibility in the area, allowing rural residents to take advantage of the economic opportunities in Nashville without having to live there. “Many residents drive into Nashville to work, but would prefer to

stay home and work,” Townson said. “Our fiber network helps to create Smart Rural Communities that in turn create additional capital that is spent locally.”

Creating an environment where small businesses can thrive and the labor force has flexibility and sustainable wages requires many moving parts, and keeping the machinery running even in the face of obstacles is what makes a rural community so smart. According to Townson, “DTC broadband helps our communities compete for job seekers, industry and new businesses across our entire service area. ... There are dozens of businesses in our area that are able to operate nationwide businesses from rural areas by having access to DTC's fiber network.”

The company also provides broadband connectivity to three local electric cooperatives. “We provide fiber connectivity at substations, offices and other important points on [the cooperatives'] network,” Townson explained. “Each uses this connectivity to survey, monitor and sometimes remotely control and repair systems.” Allowing utilities to operate smoothly and efficiently is another way both the local economy and quality of life is bolstered. ▶

▶ At DTC, the SRC branding both reflects the company's accomplishments and helps to publicize the future potential that DTC's broadband network will foster in the region. Currently, according to Townson, "We're just on the cusp of promoting the SRC [brand] on a wide-scale basis. We will hold ribbon cuttings and sign postings in each community we serve. We'll work with local chambers of commerce, and county and city mayors' offices to help create materials that will promote opportunity in our area. ... The SRC brand shows that DTC Communications is committed to creating opportunity through service."

BUILD THE COMMUNITY

Rhonda Fitterer, marketing and PR manager for Consolidated Telcom (Dickinson, N.D.), lives in New England, N.D. A town of exactly 600 people, according to the last census, its highlights are "a café, a couple bars and the churches," she said. And, of course, it is served by Consolidated's 100% fiber broadband network, which provides internet access to about one person per square mile. Consolidated's service territory is "very, very rural," said Chief Executive Officer Paul Schuetzler—population density is low and the primary occupations of residents include farming and ranching, meaning dwellings are far apart from one another.

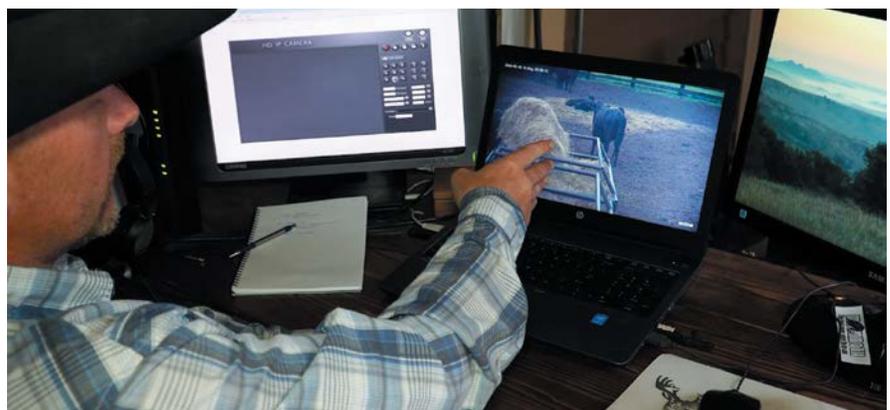
Consolidated's network has a large role in community building. "Most of the recreation in our cooperative revolves around the school," Fitterer said. Anchor institutions such as public schools can be just that—anchors of the surrounding community, gathering places and event halls. And at New England High School, which uses Consolidated's network, anyone can be a member of the community, even if only virtually. The school's gymnasium has a rotating, multilens camera that follows movement, and records and broadcasts "every event that happens

in the gym," Fitterer said. "If someone is out of town, like a relative, they can go to the school's website and watch." The school charges a monthly fee for unlimited access to the feed, Fitterer explained, and it's an important source of recurring revenue.

Scott Bachmeier, a rancher and radio personality in southwest North Dakota, is utilizing Consolidated's network to broaden and strengthen his widespread rural audience. Bachmeier, who is also on the Consolidated Telcom board of directors, is "pretty progressive" when it comes to new technology, Schuetzler said. Bachmeier is the host of "North Dakota Outdoors," a radio program about nature and animal conservation issues. A broadband connection allows him to "do a bunch of stuff for his radio show from his home, in one of the most remote parts of our service territory," Schuetzler said. The show reaches 20

radio stations across six states and two Canadian provinces, and a VoIP connection allows listeners to call in with questions.

Consolidated also focused on its local community when publicizing its SRC Showcase Award. The SRC designation is currently displayed on the cooperative's website, and visitors who click the logo are redirected to a local news story that was written about the award, including a picture with NTCA Chief Executive Officer Shirley Bloomfield. Consolidated has also purchased signage that displays NTCA's Certified Gig-Capable Provider logo on one side and the SRC logo on the other, which the company hopes to post throughout all 19 of the communities in its service territory. But at the end of the day, said Schuetzler, "When we're getting these awards, it's just reinforcing what we already do."



Consolidated's robust broadband connections allow Scott Bachmeier to operate a radio talk show and viewing cameras during calving season.



The business office of Rye Telephone in Colorado features SRC branding.

BUILD A NEW MODEL OF RURAL SUCCESS

Smart Rural Communities are so classified because of how they use existing resources to provide innovative new programs and services. But at Rye Telephone Co. (RTC; Rye, Colo.), General Manager David Shipley is attempting to build on the legacy of the company—which began as family-owned and has spent the past 15 years working to reach 90% penetration of fiber-to-the-home and gig capability—to chart a new path forward for rural telcos.

Like Consolidated, RTC serves about one dwelling per square mile, and geography has been the primary hindrance to buildouts. “It’s mostly a combination of the Rocky Mountains and the eastern plains,” Shipley said. “It’s mountainous and rocky ... with a lot of ranches and acreage [between customers].” One of the company’s exchanges, in Kim, Colo., is 900 square miles and has only 120 customers—which priced RTC out of deploying fiber to that region, so they had to devise more creative solutions. In the Kim exchange, customers are reached through a combination of methods, including copper VDSL, microwave point-to-point radio licenses and point-to-multipoint through fixed wireless.

Supporting a Smart Rural Community in Colorado has also required collaboration. RTC has partnered in some instances with another NTCA

member company and neighboring rural local exchange carrier—Pine Drive Telephone Co. (Beulah, Colo.). “Pine and Rye are contiguous to each other, so we’ve connected fiber between and we share infrastructure and our facilities,” Shipley explained. This year, the two companies have formed a partnership to bring fiber to the town of San Isabel—a seasonal town that sees its population balloon from 25 to 250 people in the summer—by sharing the costs of deployment. The San Isabel Electric Association monitors its entire grid using fiber connections that it leased from RTC, and in exchange, the electric utility gives the broadband provider a discount on pole attachments—allowing RTC to deploy fiber deeper into the network.

This is the new model, in Shipley’s view: Not one of “winners” and “losers,” not of vicious and unproductive competition. “This is our problem—we fight each other, we always want to win and come out with the best deal. But sometimes, the best deal is getting involved in a consortium,” Shipley said. He continued, “The rural space has this selective view of winners, and there are people out there that are just surviving.” They should “open up their doors ... [because] there’s going to be competition, but our philosophy is, we’re going to get some of the revenue rather than none.”

RTC is part of the USConnect Services Co. Inc. (Bedford, N.H.) family of

“The fabric of rural America is just community. ... We take that responsibility as human beings and we bring it into broadband.”

companies, another avenue through which they can share resources and lower costs. “Back in the day, everyone had a server, switch, GM, router, HR person. ... USConnect came in and kind of decided to blow this model up,” Shipley said. “We don’t need one of everything in every company. We can share resources. Why not networks?” So, Shipley explained, “We put a core network in Denver, and we point all of our Colorado, Kansas and New England companies into Denver now. We’ve reduced our costs substantially, plus we’ve increased our bandwidth, because now we can buy more.”

What drives everything that RTC does, Shipley says, is a sense of obligation to the community. “Part of our philosophy too is the community involvement,” he said. “The fabric of rural America is just community. ... We take that responsibility as human beings and we bring it into broadband.”

In spring 2019, NTCA will announce an expansion of the Smart Rural Community that will provide additional opportunities for rural members, building on the foundational principles of collaboration and innovation as demonstrated by the Showcase Award companies. ●

Ashley Spinks is communications coordinator at NTCA—The Rural Broadband Association. Contact her at aspinks@ntca.org.

Racing to Meet the Speed Testing Deadline

BY MASHA ZAGER

As high-cost universal service support transitions to focus on broadband, regulators want to know whether it is meeting the goal of bridging the digital divide. Last summer, the FCC established requirements for recipients of high-cost universal service support to begin documenting speed and latency performance in their service areas.

Beginning in the third quarter of 2019, providers must follow a detailed testing and reporting protocol to measure speed and latency between customer premises and one of 16 approved internet exchange points. Failure to meet the standards can result in the loss of as much as 25% of monthly support and, in extreme cases, an investigation into whether the carrier actually deployed the network it committed to building.

STARTING THE PROCESS

The FCC gave providers several options for testing: using the Measuring Broadband America (MBA) program, using off-the-shelf testing programs, or running tests using software installed on residential gateways or devices attached to residential gateways.

SamKnows, the vendor whose solution is used in the MBA program, says on its website that its equipment and software support the required Universal Service Fund (USF) testing. The solution includes Whitebox testing devices for

customer premises (or a router software development kit that larger telcos can use), test servers that run on the Cloudflare infrastructure, and SamKnows One cloud-based analytics software for real-time reporting of results. Ordinarily, the MBA program deploys Whiteboxes directly to customers who request them, but for purposes of USF testing, providers may have to purchase and deploy additional Whiteboxes to meet the requirements for the numbers and locations of customers to be tested.

Additional vendors have explored development of solutions. In October, VantagePoint Solutions (VPS; Mitchell, S.D.), an engineering and consulting firm, introduced a tiny testing device called the BETTI Box. The low-power BETTIs can be installed in subscriber homes to perform network speed and latency tests; they then remit the test results to a portal from which network operators can manage and monitor the devices, view test location performance, troubleshoot network issues and generate custom reports.



Nathan Weber, vice president of engineering at VPS, said the company has been doing speed testing for several years. “We started developing the solution for challenge processes,” he explained. “We needed a mechanism to collect data to show that [our clients’] competitors couldn’t achieve the speeds they said they could. From there, it evolved to being used in situations where our clients had customer issues. If a customer was complaining about slow speeds, they couldn’t have technicians there running test after test, so instead they

put a box in the home for troubleshooting.” Fast forward to the FCC performance testing requirements, and “we had all the functionality built in already for speed testing,” Weber said. “We just had to layer on the latency tests and set up software to run tests during specific time intervals.”

In December, technology vendor Calix (San Jose, Calif.) announced that it would incorporate USF performance testing into its Smart Home and

“ Failure to meet the standards can result in the loss of as much as 25% of monthly support and, in extreme cases, an investigation into whether the carrier actually deployed the network it committed to building. ”



Calix recently updated its GigaSpire Smart Home System with FCC-mandated performance testing software.

- ▶ Business solution. As of February, testing functionality has been included in Calix Gigaspire residential gateways, and reporting and analysis can be performed using the Calix Support Cloud software.

VPS and Calix said their solutions meet all FCC requirements and are currently being beta tested by clients. Neither vendor, however, can finalize the reporting formats until the Universal Service Administrative Co. issues more detailed instructions.

OPEN QUESTIONS

Brian Hamacher, director of operations of South Slope Cooperative Communications (North Liberty, Iowa), is testing the BETTI Box and said the solution is more sophisticated than VPS' early, pre-CAF-testing models. For example, the user interface has been streamlined and updated, and reports can now be uploaded automatically.

Hamacher is concerned, however, about parts of the test, especially those that depend on resources outside his company's network—and outside its control. He listed a

variety of potential problems that could affect the test results: "A bad router [in the backhaul network] could cause delays, and getting anyone to look at that and work at it could be a challenge. You could end up with congestion on the test server at the internet exchange point. And what happens if that server has a DDOS attack? We'll fail if we can't communicate with the server."

Test solution vendors agreed that depending on third parties for backhaul and for test servers could be problematic. Greg Bathrick, director of solutions marketing at Calix, said that measuring latency probably won't be difficult but that speed measurements could be affected by equipment that's out of service providers' control.

Weber said VPS had compared in-network speed tests with speed tests to the internet exchange point, and he confirmed that the additional trip to the distant third-party exchange point caused significant degradation for tiers of 100 Mbps and higher. "The test server is the most likely culprit," he said, explaining that not all test servers were designed to handle high data rates.

In addition, because all tests must be performed at the start of the hour, test servers at the internet exchange points might well become overwhelmed even if they had the capacity to measure high speeds. Weber said, "Some rural broadband providers that have transport networks connecting to an internet exchange point are talking about placing their own hardware in those locations, but most rural providers don't have that option."



VPS' BETTI Box is a stand-alone performance testing device.

QUIET PLEASE

Another potential hurdle, Weber said, is that some customers might never have quiet periods in which to conduct testing. A customer might have a security camera streaming continuously to a cloud storage service or a file server that is constantly accessed—or might just watch a lot of movies on streaming services. Neither the service provider nor the test solution vendor would be able to address this problem; the FCC would have to allow the service provider to select a different customer. (Bathrick pointed out that the FCC has not yet fully defined how to randomize customers for testing.)

A final logistical issue—and one that nobody knows how to address—is that customers may refuse to allow providers to test their internet speeds. Bathrick said that Calix's solution may be more acceptable than others because it doesn't require installing specialized testing equipment. Providers don't have to send a technician to install a box or rely on customers to do it themselves; in fact, customers don't even have to know that testing is taking place. However, some providers believe they have an ethical or practical obligation to inform customers that they have been selected for testing. As Hamacher said, "Personally, I think it's something you'd want to divulge so they don't think you were doing anything wrong."

Hamacher added, "Right now, we're using friendly employees, but we'll send out notifications to customers [when live performance testing begins]. ... How do you tell customers the government wants to put a box in your home? I'm not sure people will be too receptive to it." ●

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“Some providers believe they have an ethical or practical obligation to inform customers that they have been selected for testing. As Hamacher said, “Personally, I think it’s something you’d want to divulge so they don’t think you were doing anything wrong.” ”

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Is Live Streaming Video the Right Fit for Your Customers?

Innovative Systems has learned through their own sponsored market research that rural customers don't always follow the same trends with video. Much of the activity reported by the press on cord cutting behavior focuses on more urban or metropolitan-based subscribers. So, it is important for video service providers to do their own research with customers and get more informed data about their marketplace before implementing specific video strategies. Here are two NTCA member companies who have carved out a niche application for live video streaming.

SKYLINE TELEPHONE MEMBERSHIP COOPERATIVE (SKYBEST)

Skyline/SkyBest is based in western North Carolina with both incumbent and CLEC markets across North Carolina, South Carolina and Tennessee. Skyline introduced a streaming service through the InnoStream™ platform from Innovative Systems called SkyBest TV Now about 18 months ago. Skyline moved to the InnoStream™ platform from a home-grown HLS capable streaming product. The previous platform was a bit unstable, and the move to the InnoStream™ has been very beneficial, providing much needed quality improvements and better performance. SkyBest TV Now, the brand Skyline uses for this streaming service, currently offers about 21 channels which are primarily local channels for one connected



device stream. Additional streams of up to three (3) total connected devices simultaneously are charged an additional monthly fee.

Skyline recommends customers get 12 Mbps minimum for best streaming performance, including for their DSL customers. SkyBest TV Now is primarily featured on Roku devices, but consumer device

preferences may change. The InnoStream™ platform gives them the option of adding additional delivery devices.

SkyBest TV Now gives Skyline customers more video options, including those who may only need local broadcast channels. It's also been used as a save tactic for customers who are calling in to discontinue traditional video service. Skyline says it's nice to have this lower-cost option for subscribers who otherwise may drop video altogether.

For Skyline, the service also fits well with a subset of customers who have second homes, giving Skyline better broadband and video packages to serve those "weekender subscribers" by adding a streaming video option.



MATANUSKA TELEPHONE ASSOCIATION INC. (MTA)

MTA is a triple-play provider based in Palmer, Alaska, and serves a territory about the size of Maryland. After talking to customers who said they wanted a lower-cost, more-flexible video option, MTA launched their streaming product called MTA Stream in 2015. MTA provides a Roku device for their customers and will set it up for customers, provided they also sign up for unlimited broadband.

MTA Stream features local channels, which is important to rural customers. MTA Stream also offers HGTV, Hallmark and DIY network in their streaming line-up.

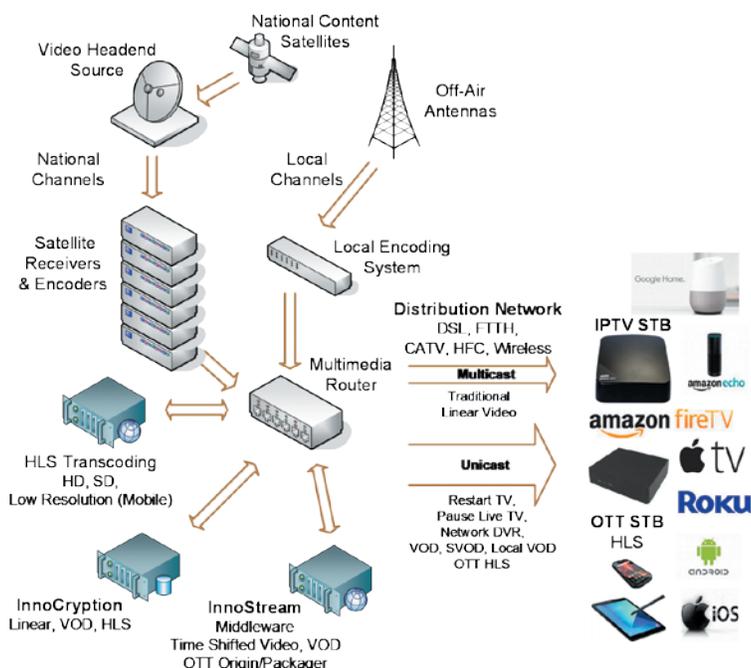
The MTA experience in streaming suggests that more channels are becoming available for streaming services. As the streaming industry evolves, more programmers are open to this model—even programmers who once said no. It is all about making sure programmers understand that this content is only available on your managed network and cannot be streamed outside a service providers territory.

MTA views MTA Stream as a successful product. The product continues to see growth month-over-month. Their subscriber base has nearly doubled in the past year. MTA is evaluating additional features for the service with an eye on balancing adding features with keeping the price attractive.

INNOSTREAM™ MULTI-GENERATION TV (MG-TV)

After listening to customers and recognizing the industry trends highlighted by the Skyline and MTA case studies, Innovative Systems has been adding features and planning many additional enhancements for its video products. Since video service is a high-revenue, low-margin business, service providers need a single infrastructure to meet the diverse needs of customers by delivering video in multiple ways. Some older customers want traditional TV via a STB on the big TV while other younger customers may prefer streaming to other devices. In many instances, these different video consumption preferences are present in the same home.

InnoStream™ MG-TV is a complete solution which gives video providers an economical path towards integrated IPTV and OTT streaming all out of the same platform. MG-TV supports any combination of existing STBs, Wi-Fi STBs, iOS & Android™ devices, Roku™ and Apple TV™.



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RTIME

2019

Charts a Revolutionary Course for Rural Broadband

BY ASHLEY SPINKS



Policymakers, advocates, managers and board directors came together in New Orleans, La., February 3–6 to start a rural broadband revolution. The Rural Telecom Industry Meeting & EXPO (RTIME) brought more than 2,000 attendees, hundreds of vendors and exhibitors, and dozens of engaging, educational and passionate speakers to the Big Easy to envisage the future of technology in rural America.

Themed “Revolution,” this year’s iteration of NTCA’s annual RTIME featured several new elements, including an updated EXPO and EXPO Live!, off-site regional caucus meetings, and anniversary celebrations for both the Foundation for Rural Service and NTCA Rural Broadband PAC. Perhaps the most notable part of the week in Louisiana was a visit from FCC Chairman Ajit Pai, who was greeted with a standing ovation when he arrived for a “fireside chat” with NTCA Chief Executive Officer Shirley Bloomfield.

FORWARD-LOOKING SPEECHES AND SESSIONS

Much of this year’s RTIME focused on the future of the rural telecommunications industry—beginning with remarks during the Opening General Session from NTCA Board Chairman Kevin Beyer detailing the diversity of the industry and how broadband companies from differing backgrounds can collaborate and jointly advocate for progress. The myriad educational sessions offered insight into data analytics, elevating new business ventures, competitive expansion tactics and the value of connected communities. During Monday’s Second General Session, keynote speaker Joe Candido offered advice on how to think like a futurist, and EXPO Live! hosted a panel on successful partnerships with electric cooperatives, a fairly recent inclination of the industry.

NTCA Senior Vice President of Industry Affairs and Business Development Michael Romano led two panels—on Monday, a discussion of “The Changing—and Unchanging—Nature of Rural Network Economics” and on Tuesday, predictions and preparations for “The Industry in 2030.” Again, much of the conversation at this year’s RTIME revolved around the future of leadership, employment and growth for the rural broadband companies in attendance—particularly in the wake of the certainty and stability that was secured by the FCC order late last year. But attendees also had an opportunity to look back and celebrate past triumphs with the celebration of the 25th anniversary of the Foundation for Rural Service and the 50th anniversary of the NTCA Rural Broadband PAC. ▶

Joe Candido offered insights about workplace dynamics and the future of employment.



Former AMAC Chairwoman Jennifer Logsdon shares a story during the Women in Telecom Industry Roundtable.

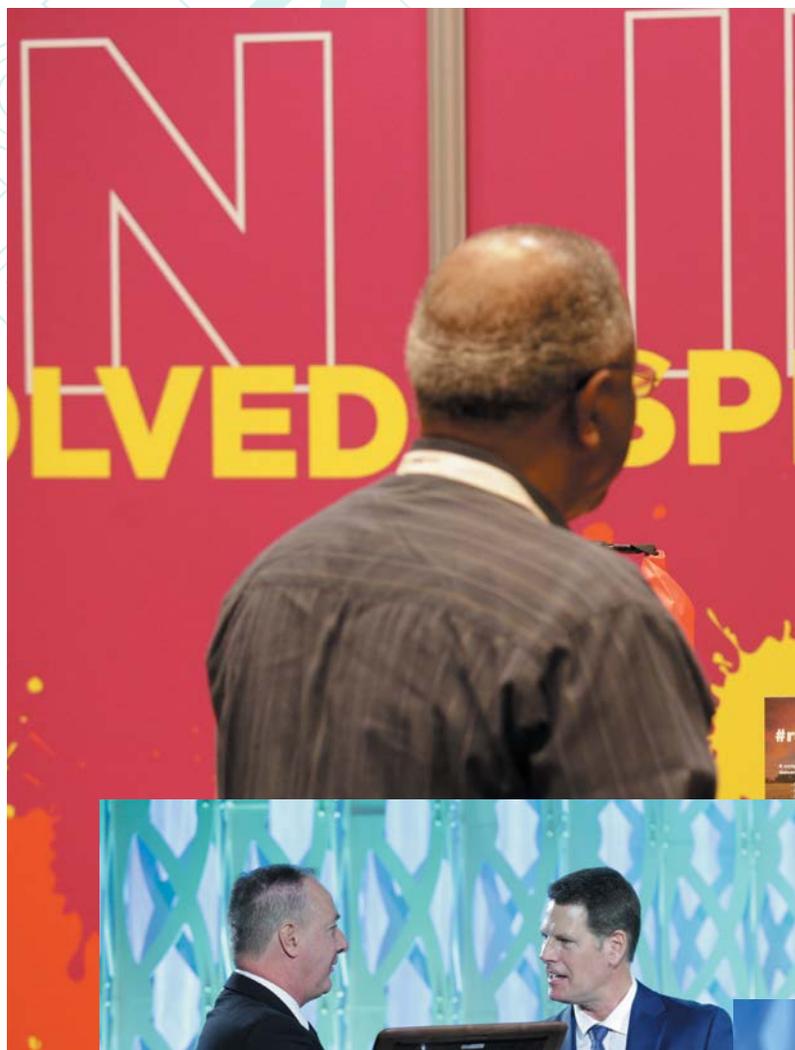


▶ CELEBRATING THE PAST, PLANNING THE FUTURE

Several events at this year's RTIME were meant to highlight the accomplishments and rich history of two organizations central to NTCA's mission—the Foundation for Rural Service (FRS) and NTCA Rural Broadband PAC. The foundation, which seeks to enhance the quality of life in America by advancing understanding of rural issues, kicked off its 25-year celebration with a black-tie gala on Monday, February 4. More than 500 people attended the gala, which included both a live and silent auction, a live band, a magician, a dance floor and a plated dinner. All told, the auctions managed to raise nearly \$50,000 for the foundation. At the Closing General Session, Carri Bennet, chairman of the FRS board, announced that her law firm Womble Bond Dickinson would increase its donation of grant funds from \$15,000 to \$25,000 this year in honor of the foundation's anniversary. Don Bitz, a board director for Triangle Communications (Havre, Mont.) and longtime liaison between the NTCA Board of Directors and FRS, also announced his funding of 10 scholarships of \$5,000 each for rural students who have embodied the value of faith. Finally, the foundation announced the launch of its new Virtual Living Room grant program, meant to support telehealth access for rural veterans.

The Rural Broadband PAC also held several events to commemorate its half-century of success raising money and advocating on Capitol Hill on behalf of rural America. On Tuesday morning, the PAC held a 50th Anniversary Celebration breakfast recognizing its top donors and donor companies. Later that day, the PAC organized a trip to the National World War II Museum in downtown New Orleans. Attendees could tour the museum galleries, enjoy a buffet dinner and lounge and chat in the cocktail area, which included performances by "The Andrews Sisters," who were a big hit.

The overarching message of the celebration events, however, was the imperative to build upon the strong foundations of both FRS and the PAC to ensure the success of rural America for many years to come.



Top: NTCA debuted new and colorful branding at this year's EXPO.

Left: NTCA Board Chairman Kevin Beyer thanks his predecessor, John Klatt, for his service to the association.

Right: FCC Chairman Ajit Pai smiles during his chat with NTCA Chief Executive Officer Shirley Bloomfield.



THE CHAIRMAN'S PRIORITIES

This year's bigger than ever EXPO, which opened with a genuine New Orleans marching band, was an exciting part of RTIME 2019, as was the new format for regional caucus meetings, which were held this year at the House of Blues. Perhaps the most thrilling part of the meeting, however, for staff and attendees alike, was a visit from FCC Chairman Ajit Pai.

Pai has long been an ally of NTCA, the rural broadband industry and rural America broadly. From Parsons, Kan., he portrays himself as deeply invested in the success of rural communities, and from the perspective of NTCA, that means ensuring reasonably comparable internet service and subscription rates to regions of the country that are too often left behind.

In December 2018, the FCC passed an order on the Universal Service Fund (USF) budget, guaranteeing more funding, certainty and stability than the rural broadband industry has seen in nearly a decade. This influx of much-needed funding will allow rural broadband companies, such as NTCA members, to improve and expand their existing networks. At her talk with Pai at RTIME, Bloomfield thanked him for his work and asked about what was coming next—for the FCC and for the greater broadband industry.

Pai articulated the importance of an accountability mechanism for performance testing, saying there is a necessary balance to strike between making sure USF dollars are spent wisely and that regulations do not become burdensome for small providers. Pai and Bloomfield also discussed making spectrum more accessible to rural carriers and addressing issues with the rate floor policy. These conversations gave those in attendance a good idea of what the future holds for the rural broadband industry—at least while Pai is at the helm of the FCC. He closed by saying, “This is the challenge of our time—it’s making sure that every American is empowered to succeed in the digital age.” ●

Ashley Spinks is communications coordinator at NTCA. Contact her at aspinks@ntca.org.

**Join us at RTIME 2020,
which will be held in Phoenix, Ariz.**

MARKETING eXcellence AWARDS

NTCA—THE RURAL BROADBAND ASSOCIATION

NTCA's Excellence Awards are selected by the association's Awards Committee, comprised of NTCA members. NTCA Chief Executive Officer Shirley Bloomfield presented the awards during the 2019 Rural Telecom Industry Meeting & EXPO Excellence Awards Ceremony on February 6, 2019.

The NTCA Excellence Awards

recognize those NTCA members who have shown exceptional commitment to their communities and the rural broadband industry. Recipients are recognized annually at the Rural Telecom Industry Meeting & EXPO.



Vern Dosch, chief executive officer (CEO) of National Information Solutions Cooperative (NISC; Mandan, N.D.), received the **Associate Member Outstanding Achievement Award**. Dosch has successfully led NISC for the past 25 years, and during his entire tenure has found many ways to support NTCA, its advocacy efforts, and the broader rural telecommunications industry. Dosch is a regular presence on Capitol Hill and has been a reliable supporter of NTCA conferences and programs as a tireless advocate and a humble, curious and passionate leader.



Amanda Floyd, director of marketing at Atlantic Telephone Membership Corp. (ATMC; Shallotte, N.C.), received the **Marketing Achievement Award**. Floyd led the charge in promoting ATMC's five-year expansion program, developing the company's social media presence, introducing new products, increasing local coverage

of community events through ATMC's local channel and helping it receive the Smart Rural Community designation.



Scott Dutton, director of outside plant engineering for ATMC, received the **Management Innovation Award**. Dutton has served ATMC for nearly 20 years, and throughout his career has been key to the company's success. In 2005, he oversaw the design and development of its fiber-to-the-home project, the first in North Carolina.

Dutton was also essential in securing grant funding from the U.S. Department of Agriculture to provide broadband in Columbus County, N.C.



Two employees from Nex-Tech (Lenora, Kan.), Senior IP Head-End Technician **Jim Broeckelman** and Senior Communications Technician **Kyle Jones**, were honored with **Heroism Awards**. In March 2018, Broeckelman and Jones were both

involved in responding to a fire in Norton, Kan., when they came to the rescue of residents of a nearby apartment complex that became engulfed in flames early in the morning. Jones, who is also captain of the Norton City Fire Department, helped Broeckelman get people to safety, even kicking down a door to check on an apartment from which there was no response.



Zack Odell, CEO of S&T Telephone Cooperative Association (Brewster, Kan.), was also honored with a **Heroism Award**. On an early morning in May 2018, Odell was on a jog with his colleague Mike Teeples when the pair encountered a woman in extreme distress who had been stabbed multiple times. Odell rendered lifesaving aid to the woman,

who survived the attack thanks to his intervention and care. When asked about his heroism, Odell said, "I only did what anyone else would do."



Mike Casabonne, board president of Penasco Valley Telephone Cooperative (Artesia, N.M.), received the **Director Life Achievement Award**. Casabonne is entering his 35th year on the Penasco Valley Board of Directors, and he is a highly respected and very involved member of the rural community where he grew up. He has been

instrumental in supporting the telecom industry by conveying the concerns of providers and landowners to the New Mexico congressional delegation. He has also been named a New Mexico Sheepman of the Year and served as both president and vice president of the New Mexico Federal Lands Council.

The **Manager Life Achievement Award** was awarded to **Kevin Larson**, director of public relations for Consolidated Telephone Co. (CTC; Brainerd, Minn.). Larson's career in telecom spans 45 years. He started as a technician and recently retired from his position as chief executive officer and general manager of CTC to become the company's public relations director. Larson's ability to think creatively has earned him much success in the rural broadband industry. As CEO of CTC, he grew the cooperative's membership base by 40% and entered into a successful partnership with a local electric cooperative. A pinnacle of Larson's career was working with other telecom general managers in Minnesota to create the cooperative-owned transport and engineering firm Cooperative Network Services.

● TRAINING DAYS ●

How Real-Time Data Can Revolutionize Your Board: A Q&A With Dottie Schindlinger

By Mark Marion

We recently sat down with Dottie Schindlinger — governance technology evangelist for BoardEffect, a board portal solution provider serving more than 2,000 organizations, and a speaker at the NTCA 2018 Regional Conferences — to discuss how technology has significantly changed or augmented every aspect of a telco's operations, but typically not the board's governance function.

Let's start with a definition of governance technology. What are we talking about here?

Governance technology refers to digital tools that can help boards prepare for and facilitate meetings efficiently and effectively. It also helps directors address questions such as: Where are bylaws, policies, historical agendas and corresponding meeting minutes stored? How can we access them conveniently? How long does each board member have on their term? Who are the current committee members? If we need to take a vote but can't meet in person, how can we facilitate that electronically? How can we ensure anonymity in board and manager evaluations? How can we access data sources with real-time information before and during board meetings?

Tell me more about the idea of access to real-time information.

First, take a step back and think of the basic purpose of a board. We tend to think about boards as groups that pour over huge tomes of information, then weigh the options placed in front of them and make decisions; however, the real purpose of a board is to keep an eye toward the horizon and ensure that the company is prepared to handle whatever is



**DOTTIE
SCHINDLINGER**

Governance Technology Evangelist for BoardEffect

coming next. Embracing technology to fulfill this purpose is a no-brainer, especially for a broadband company!

Written reports are 100% focused on the past. How well-versed would you be on current events if your only source of information was a three-week-old newspaper? It certainly helps to have historical context, but if the board stopped its thinking there, the organization wouldn't move forward. If the board is only receiving dated written reports, we are asking the impossible: Identify strategies to position the organization for future success with information that is typically three weeks' old.

So, it is more than just presenting the same standard reports in a digital format.

It should be. It is a common misconception to think about governance technology as simply a digital replacement of the paper binder. That's a starting point, and there is definitely a convenience factor, especially on the preparation side. But that should only be the first step. The next level is automation or enhancement of board processes, such as voting, board evaluations, information tracking and secure communications. But the vanguard of governance technology is providing boards with near-real-time data and AI tools that make connections people don't typically see. That's when you really start to shift from reactive introspection to a nimble, proactive approach to strategic governance.

Help me frame this with a use case for a rural telco.

OK, let's say you are working on plans for competitive expansion. Historically, staff would assemble a big report over a period of weeks. With a governance technology solution, the board could have access to up-to-date information about competitors and the competitive environment with AI tools

layered on top. If you are asking the right questions in the right way, you start to get interesting, creative, unusual outputs that would have taken people much longer to arrive at, if at all.

Of course, you still need people. Staff remain involved in determining what those right questions are and how to ask them. But better tools allow people do what people are good at: making decisions based on quality information. And it lets technology do what it's good at: identifying patterns and connections in mountains of data that we otherwise would not see.

Does a company need to be a certain size to take advantage of something like this?

Actually, some board management software platforms are built with small organizations in mind. The largest corporations might be inclined to build in-house solutions because they can afford the staff and ongoing expense of doing so. The right governance technology solution can be a profound game-changer for organizations of any size to harness powerful tools without worrying about building and supporting it internally.

“The right governance technology solution can be a profound game-changer for organizations of any size to harness powerful tools without worrying about building and supporting it internally.”

Does it end up being more work on the staff to support these kinds of tools?

During early adoption, there can be a learning curve—but very quickly. Staff love it. Things that took two weeks now take 10 minutes. Once you begin considering future possibilities to improve governance discussions, the discussion changes, because then you are asking staff to think and work differently.

I'm often asked if the board support role of the executive assistant will be replaced by governance technology. The answer is yes and no. Replacement of assembling binders, collecting reports, tracking down historical documents, mailing out materials? Yes. But that support role is also about to get way more interesting. It is going to require a new set of skills, including an awareness of industry context, ability to evaluate the quality of data sources, and knowledge of what and how to ask questions of these data sets. This will allow board support professionals to become an even more critical part of successful governance.

How can boards ease the transition for members who are reluctant to make the transition to digital tools?

We have heard organizations say, “We're almost ready to embrace these new tools, but we have one board member that isn't comfortable with it. So we are going to hold off for now.” And I carefully repeat back to them, “So, what you have just told me is that the entire organization is going to be held back until one person decides it is OK with them? Is that really acceptable?” Behavior change is hard for sure, but if you take it in stages and move forward slowly and methodically, that hesitant board member will eventually come along. In the meantime, you will have provided incredible benefit to the vast majority of the board, and begin improving governance workflow overall.

“In a Forrester report in late 2018, we learned that 23% of directors had lost paper assets in just the last 12 months, and 29% had lost a mobile device.”

Are there security concerns about placing board documents or processes in electronic format?

There should be security concerns about board documents all the time—whether they are in paper or electronic format. What controls do you have in place once hard copy binders are out of your hands? In a Forrester report in late 2018, we learned that 23% of directors had lost paper assets in just the last 12 months, and 29% had lost a mobile device. At least with the mobile device you have the option to do a “remote wipe” of all the data. The paper loss could represent a data breach, requiring the organization to provide “notice” to all of its consumers.

If you are using secured digital platforms, they are purpose-built for protecting documents: encryption, screen shot protection, digital signatures, two-factor authentication. In fact, by moving to a purpose-built governance technology tool it might be the very first time that a board has had a legitimately secure process for handling sensitive data. ●

Mark Marion is director of training and development at NTCA—The Rural Broadband Association. Contact him at mmarion@ntca.org.

● BENEFITS ●

Technology in Motion With **myNTCA BENEFITS**

By Beth F. Farmer

Over 13 million. That's a big number for most organizations. It's also a big number for NTCA—The Rural Broadband Association because it reflects a significant milestone in a multiyear technology project for our benefits program operations. This exciting project demonstrates our commitment to a strategic association priority: to continuously improve operational efficiencies and create better member experiences.

LAYING THE FOUNDATION FOR NEW SERVICES

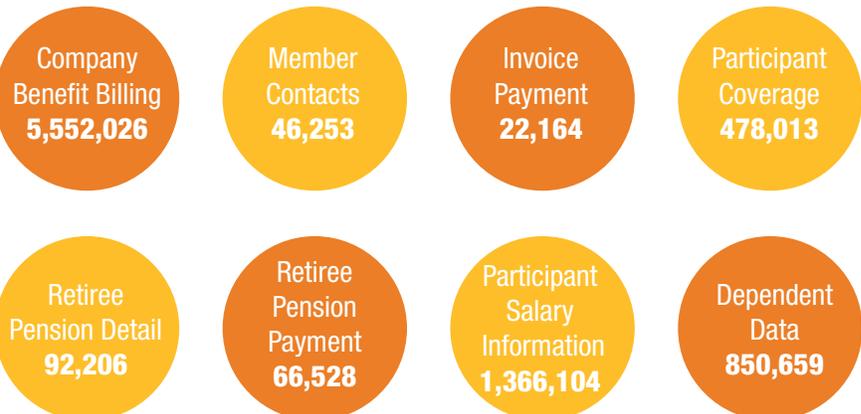
After completing a comprehensive analysis of our existing benefits administration software systems, we determined technology upgrades were needed. Our starting point was replacement of our benefits program enrollment and billing software, which we had used for more than 15 years. Many factors weighed into the organization's decision to replace versus upgrade the existing system, including the increasing complexity and resources required to record keep and administer the multiple-employer benefit plan design of the NTCA health and retirement plans. One expected near-term outcome from the new software system is automation of routine tasks and elimination of manual processing, allowing NTCA benefits personnel to focus on more complex benefits administration responsibilities. We also wanted to build a framework to support new online services for our members.

REACHING A MILESTONE

Thousands of activities are required to implement new software. One of the critical activities in this project was the arduous process of planning, programming, testing and converting data from our existing system to the new system. This is where "13 million" comes into the picture. To be more precise, 13,780,600—that's the number

of data records we converted from existing systems and internal databases into our new software system, including member company contact and benefit plan data; billing, financial transaction and invoice payment details; employee demographic, compensation and employment records; employee and dependent benefit plan coverage information; and retiree pension records. Many NTCA members have undertaken new software system installations, so you will appreciate the scope and complexity of a software project with this volume of converted data. Quality review has been intense, staff work hours long and we have conducted extensive testing to get to the finish line. Although some bumps occurred along the way, we successfully began using the new enrollment and billing system in December 2018.

Converted Data Records





The new billing system turned out looking good with plenty of detail and ways to access self-service functions on the portal.

—Karen D. Thompson
Human Resource Manager
Park Region Telephone
Otter Tail Telcom
Underwood, Minn.

NEW ONLINE SERVICES FOR MEMBERS

With our internal system launch completed, we moved to the next phase of the project—creating new online benefits administration services for NTCA members. *My NTCA Benefits* is a self-service portal that puts technology in the hands of our members for online management of their NTCA benefit plans. We opened the first phase of the new portal in January, providing member company representatives online access to NTCA benefit plan bills, more detailed information on the bills, the option to export detailed billing data for financial reporting and cost analysis, and electronic bill payment

Self-service processing of benefit plan activities will allow HR/benefits staff to shift more time to support their company's strategic objectives.

options. Feedback from members about their experience using the new portal has been positive.

We are now hard at work to roll out additional services, including online reporting of company personnel changes like new hires and employee terminations. This additional

functionality from *My NTCA*

Benefits should be

welcome news to

the dedicated and hard-working HR and benefits professionals at NTCA member companies.

Reduced paperwork

and self-service processing will allow

HR/benefits staff to shift more time to support their

company's strategic objectives—a win/win for the individual and member organizations.

MORE ONLINE SERVICES COMING FOR MEMBER EMPLOYEES

My NTCA Benefits also will be available to benefit plan participants later this year. This new self-service portal will give member employees, directors, former employees and retirees online access to view benefits-related activity and to notify us in real time as life events happen. The participant portal will be secure and user-friendly, and will allow 24/7 access to the individual's NTCA benefit plan information. We anticipate *My NTCA Benefits* will encourage employees to take more responsibility for his or her information. Errors should be minimized when an individual inputs his or her own data, and the time and costs involved in handling and mailing paper forms will be greatly reduced. Or, to put it another way, that's **technology in motion—a win-win for NTCA, our members and benefit plan participants.** ●

Beth Farmer is benefits communications manager at NTCA. Contact her at bfarmer@ntca.org.

For more information about this technology project and NTCA benefits, contact your NTCA member relations manager. Visit www.ntca.org/MemberRelations for contact information.

Don't Get Hooked by Phishers

By Peter J. Elliott, CPCU

No doubt you or someone you work with has received or seen phishing emails. A review of my own work email account discovered 167 attempts made against my address in January alone. And, some of them were emails I had supposedly sent to myself asking for either a wire transfer or if I was at my desk. So, I figure I can't be the only lucky one getting these types of emails.



In technical terms, “phishing” is a fraudulent attempt to obtain sensitive information such as usernames, passwords and credit card details by the sender disguised as a trustworthy entity in an electronic communication. Phishing is also known as social engineering. Email and instant message are common means of communication, and spoofing the identity of the trusted source creates an opening for the bad actor. These attacks often direct a user to click on a link or enter personal information at a fake website, the look and feel of which are similar to the legitimate site.

SPEAR, CLONE OR WHALE

The attacks can be by spear, clone or whale. In a spear you or your firm are specifically targeted. Cloned messages will use an intercepted email, and the hacker will mimic it and add a harmful link to catch a phish. Finally, a whale attack goes after executives of a company using the guise of a corporate subpoena against the company as an example, to get the manager to engage or click on a response link. The saving grace for surviving these attacks, beyond a tight setting on a spam filter, is that there often are typographical errors in the message, changes in font, or a visible email address of the sender that isn't their actual address. (Attempts at attack where the email address isn't visible eliminate the last

safeguard and create a real challenge for everyone who gets attacked.)

Beyond my own stats from the month of January, here are few others that you should think about, in addition to stressing the importance of a good technology plan and a great insurance policy to transfer the risk should the plan fail.

According to the Anti-Phishing Working Group, almost 1.2 million unique phishing attacks were launched in 2017—and the number of overall attacks is much greater. KeepNetLabs claims the average cost of a successful cyberattack is \$1.6 million, Accenture says it's \$2.4 million, Microsoft \$3.8 million and IBM \$7.35 million. Juniper Research—clearly anticipating inflation—predicts that by 2020 the average cost of a successful cyberattack will be \$150 million.

When the question is whether something is covered or not covered by the terms of the policy, an insurer will go through the following sequence of spot checks:

- Is the insured or is the claimant making a demand against a valid and current policy?
- Is the damaged item covered by the policy with or without limitation?
- Is the cause of the loss covered with or without limitation?
- Is the limit of insurance after the deductible is satisfied available?
- Are there any exclusions, either built in to the policy or added by endorsement, that would reduce or eliminate coverage?

COVERED OR NOT?

With social engineering as an example, let's look at the answers to these checkpoint questions and see how far we get. We will assume the insured has a valid policy that is in force. We will also use the example of the social engineering claim for \$25,000 of funds the insured parted with in a fraudulent request for wire transfer. The loss of funds has a few places where it might be covered: crime coverage for money and securities, electronic funds transfer fraud, computer fraud or the cyber policy under a breach. The next question is where to look more deeply at the noted policy coverage terms and see if money is covered and what term of the policy may reduce or eliminate coverage altogether.

“The money and securities coverage are for physical theft or disappearance, so the electronic transfer eliminates coverage because it was cyber.”

The money and securities coverage are for physical theft or disappearance, so the electronic transfer eliminates coverage because it was cyber. Most property and crime policies also have an exclusion for voluntarily parting with an asset, money, funds or cash are an asset, and sending the money is an act of voluntarily parting with the asset even if it was

by trickery. The electronic funds transfer fraud is worded to be for the hacking of a wire. Therefore, unless there was a liberal interpretation by an insurer (not likely or legal), this part of the crime policy would not afford coverage. Computer fraud, at least by the name of coverage, seems to be a fit.

When the coverage terms are read, they state that a hacker by use of the insured's network or computer system is able to divert a tangible asset to a location not owned by the insured and steal the item. While money is an asset, the theft was not done by the hacker using the network or system to divert the cash, and even if it could be construed as such, the voluntary parting exclusion is applied.

With no crime or property coverage, the cyber policy is the next one to review. The initially developed policies were basic property and liability protection against a breach. The loss of money wasn't from a hack per se; instead, the use of email was the culprit in deceiving the employee of the insured to send the funds. The original policies did not have a coverage trigger for this, and while more recently introduced forms might have coverage, nothing is standardized where all insurers offer the same thing. Most policies are not covering the social engineering claim of \$25,000 in this example.

KNOW YOUR RISK

While the claim in the example may not produce a large dollar amount that isn't covered, the bigger issue is understanding what you are purchasing and knowing that you are retaining risk. Everyone should be striving for educated decisions. Having the right agent or broker is the starting point for you to have the most up-to-date information on the insurance market. With this as the foundation you can build a partnership with your agent and insurer to achieve your desired goals. Don't get caught on a line when you can swim safely and free with peace of mind. ●

Peter J. Elliott, CPCU, is president and chief executive officer of Telcom Insurance Group. Contact him at pje@telcominsgrp.com.



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IN THE NEXT ISSUE

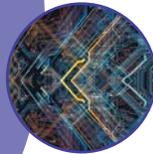
- How to Celebrate Company Landmarks
- What's in a Company Slogan?
- Marketing + Sales Conference: Best Hits

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COMING UP...



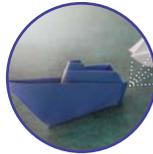
Legislative + Policy Conference
April 14–16, 2019
Hyatt Regency: Washington D.C.



Technology + Business Conference
April 23–25, 2019
Hilton Chicago: Chicago, IL



Marketing + Sales Conference
April 28–30, 2019
New Orleans Marriott: New Orleans, LA

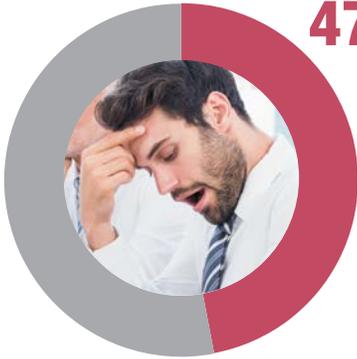


Summer Symposium
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Radisson Blu: Bloomington, MN

Find out more at www.ntca.org/events-education/events/events-calendar

How to Make Your Meetings Better

By Christian Hamaker



47%

Does your workday have too many meetings? You're not alone. According to Steven G. Rogelberg in the Wall Street Journal, a Salary.com survey last year of 3,164 workers revealed that 47% cited **"too many meetings"** as the biggest waste of time while at work, while scheduling platform Doodle said "unnecessary or wasteful meetings" will take up 700 million work hours this year.

Rogelberg has been researching the subject for a decade and a half, interviewing approximately 10,000 employees. His recommendations for successful meetings:



Realize You Could Be the Problem

If only one person leaving a meeting feels good about it—and that person is the meeting leader—it's time to change things up. Consider a daily-meeting leader rotation to keep the gatherings fresh.



Have an Effective Agenda

A Harvard Business Review survey of 187 companies showed that approximately half used boilerplate agendas. Instead, plan specific goals and questions that need to be answered during your meeting.



Limit Attendance

Invite only essential personnel.



Stop Short of an Hour

Aim for a 48-minute meeting. The shorter time helps focus discussion.



End on Time

Going long has a domino effect on schedules, creating frustration.

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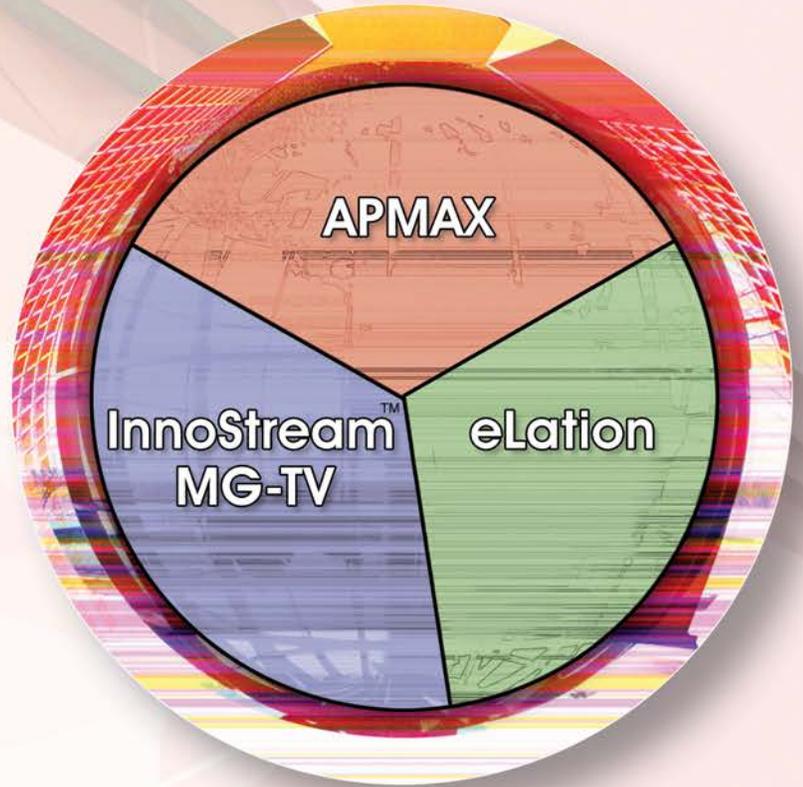
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