How WELLNESS WORKS at Local Telcos
We can help guide your business in the right direction.

NTCA BUSINESS SOLUTIONS

Your NTCA membership includes resources and benefits that will propel your business and employees to the next level of success. Our Business Solutions provide a one-stop shop to help you meet your goals. Whether you need insurance and benefits, HR services, board training and development, or connections to program partners, NTCA Business Solutions can be the answer to your needs.

Insurance & Benefits
Our exceptional benefits program provides your company with comprehensive group health and retirement plan options.

HR Services
Our HR experts deliver customized management services. From executive searches to training, our team will help you achieve employee excellence.

Board Training
Craft a continuing education plan for your board. With our wide range of modules, we'll help customize a curriculum to meet your specific needs.

Program Partners
In partnership with vetted service providers, NTCA helps you operate more efficiently with shipping solutions and cyber risk management tools at reduced rates.

For more information visit www.ntca.org/BusinessSolutions or contact your Member Relations Manager.
UDP Goes Way Beyond Billing to Help You Provide Great Customer Experiences.

Our integrated solutions automate workflows between BSS and OSS personnel, giving your staff the right tools to respond to customers quickly and effectively.

Make Your Customer Data Work For You!

Your Customer Data

Efficiently manage Orders & Tickets with our Dispatch Dashboard & COMET® Tech Mobile App.

Communicate new offerings and available upgrades through flexible invoice messaging and our web portal.

Our Convenient web-based Self-Care portal lets subscribers easily order service, pay bills and report trouble.

Our Comprehensive Data Warehouse harnesses the power of your data for reporting, analysis and marketing.

Make Your Customer Data Work For You!

www.udp.com
800-417-4493
How Wellness Works at Local Telcos

By Ashley Spinks

While "work-life balance" remains elusive for many people, NTCA—The Rural Broadband Association member companies are shining examples of how to incorporate employee health and happiness into a successful business plan. Learn what four member broadband providers are doing to promote wellness among their workers.

Photos courtesy Plateau

The Video Conundrum: To Offer or Not to Offer?

By Masha Zager

Video services are unprofitable and video take rates are declining while broadband margins and take rates remain strong. Still, the reports of video’s demise are greatly exaggerated. Most customers want video, and most telcos offer video service if their networks are robust enough.

DIY Rural Economic Development

By Tara Young

The small towns and regions that boast rural broadband companies have a distinct advantage when it comes to economic development: the broadband companies themselves. Not only are these providers capable of creating wired and wireless connections, they’re uniquely positioned to exercise a little do-it-yourself economic development by connecting people, resources and opportunities.
YOU. US. TOGETHER.

Making Communication Happen.

More Information: www.ptsupply.com

Call Us: 1-800-238-7514

Email Us: marketing@ptsupply.com
Wellness in My Home and Workplace

By Christian Hamaker, Editor

How are you feeling? I’m doing well—for a variety of reasons. Here at NTCA—The Rural Broadband Association, we’re in the fourth year of our Wellness Connections program, and after a few years of dancing around the issue, I’m finally participating.

I had tried to participate in the program last year, signing up for wellness-related missions through the program’s Rally app but then not completing them. Nor did I get a biometric screening during my annual check-up—a way to earn $75 in gift cards.

I didn’t repeat that mistake this year. I had time to prepare for my check-up, had my physician complete the biometric screening form and am now $75 richer. And if I can remember to follow through on those Rally missions, I’ll earn a bit more money.

I recently looked over my gift card choices—several options are available to me, and I can select more than one retailer—and am looking forward to treating myself to something nice.

On top of that, after some encouragement from my doctor, I’m eating better and, yes, losing weight. (By the time you read this, that may have changed!) It’s all part of my own commitment to living a healthier life—and the hope that, this time, the changes will stick.

Sound familiar? Maybe you’ve been in the same boat. In this issue, Ashley Spinks covers rural telcos that are focusing on wellness at their companies. Find out on p. 18 how their initiatives are going (“How Wellness Works at Local Telcos”), and be sure to check out p. 36 to learn about walking-related wellness challenges at two additional rural broadband companies.

While wellness helps individuals and work forces thrive, economic development benefits entire communities. On p. 25, Tara Young covers companies that are engaging in do-it-yourself (DIY) economic development initiatives, from partnerships with Clemson University to filmmaking in Mayfield, Ky.

Also in this HR- and operations-focused issue of Rural Telecom, you’ll find Masha Zager’s feature on video (“The Video Conundrum: To Offer or Not to Offer?” p. 22)—a service rural broadband companies continue to offer despite a lack of profitability and declining take rates. Hear from industry figures who have gone in different directions on the subject.

In what ways are you and your co-workers working toward wellness? Maybe, like me, you’ve had some hitches along the way. If so, don’t be discouraged! Wellness, once actively pursued, can be contagious, benefiting not only you but those around you—at work and at home. And if you participate in the Group Health Program’s Wellness Connections, you might even get some monetary awards.

Such incentives can be fleeting, but some of us need all the help we can get.
Wireless technology has made a significant step in functionality and performance, approximately every ten years. The fifth generation of mobile technology, 5G, will transition from concepts and trials to a commercial reality later in 2018 and early 2019.

SaskTel International (SI) will assist communication service providers in developing a strategic 5G transition plan that optimizes your investments and ongoing operations to support the current and future needs of your business.

SI is uniquely positioned to leverage the experience of our parent company SaskTel (a multi-play provider with over 110 years of experience), to aid in network design, implementation and operation of 5G technologies. For more information visit our website: www.sasktelinternational.com or contact us at: info@sasktelinternational.com to speak to an account representative.
The Rising Cost of Content

Consumers are paying more for the digital content bundles as those packages grow in popularity. Once thought to be an affordable, streamlined alternative to traditional video offerings from broadband providers, these content bundles haven’t proven immune to the cost hikes that prompted consumers to look for other ways to receive their video content. Source: axios.com

### Video platform subscription cost comparison and increases in the past year

<table>
<thead>
<tr>
<th>Platform</th>
<th>Cost</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netflix</td>
<td>$13.99 (+$2)</td>
<td></td>
</tr>
<tr>
<td>YouTube TV</td>
<td>$40 (+$5)</td>
<td></td>
</tr>
<tr>
<td>Amazon</td>
<td>$9.91 ($1.66)</td>
<td></td>
</tr>
<tr>
<td>Sling TV</td>
<td>$25 (+$5)</td>
<td></td>
</tr>
<tr>
<td>DirectTV NOW</td>
<td>$40 (+$5)</td>
<td></td>
</tr>
<tr>
<td>Sony PS Vue</td>
<td>$40 (+$5)</td>
<td></td>
</tr>
</tbody>
</table>

Meanwhile...

The Netflix Surge Continues

We all know Netflix is popular. But it’s most popular with millennials, according to a May 2018 survey of 2,500 adults from Cowen & Co. Almost 40% of 18–34-year-olds prefer Netflix as their video platform—more than twice the level of those who favor YouTube (17%) and even further ahead of basic cable (12.6%). Broadcast TV (7.5%) brings up the rear, behind Hulu (7.6%) for that age bracket.

Among those of all ages who subscribe to a pay-TV service, basic cable was the preferred choice at 26%, but Netflix is nipping at its heels (24%), ahead of broadcast TV (19%). Source: variety.com

Blue-Collar Workers Get a Perk: Signing Bonuses

The world of signing bonuses isn’t historically synonymous with blue-collar work, but the tight labor market is changing that. The Washington Post reports that BNSF Railway, looking to hire 3,500 workers, is offering signing bonuses of as much as $25,000 for hourly workers. The railroad wouldn’t specify where in the United States it faces the biggest struggle to find workers, but the Post noted that Nebraska, Kansas, Iowa and North Dakota have jobless rates below the national average.

The report also said other blue-collar industries, such as construction and security, are offering bonuses to new employees. “The trend could pull more workers from major cities to smaller job markets, where wages have historically been lower and housing is cheaper,” wrote Danielle Paquette. “Think: Nebraska, Indiana, Iowa—states with larger blue-collar communities.” Source: washingtonpost.com
Valuable Nebraska Farmland Competes With Housing Demand

Nebraska’s economy is thriving. It’s seen the third highest gain (behind Delaware and Washington) in average weekly earnings, and its unemployment rate of 2.8% is the fourth lowest in the United States. So why does the state’s job growth rank only 40th?

A lack of housing could be the culprit. Zillow Research shows that only California and the District of Columbia had tighter housing inventories in the past year. But home builders wanting to initiate new construction are running into an unexpected obstacle: Farmland is so valuable that farmers won’t sell. “Home builders aren’t just competing with one another for land,” wrote Andrew Van Dam. “They’re competing with the generations of crops it could otherwise produce.”

The only place farmland is getting pricier than in Nebraska? The Dakotas. ● Source: washingtonpost.com

Say Hello to ‘Huddle Rooms’ and ‘Touchdown Spaces’

Do you still work at a desk? If so, enjoy it while it lasts.

Real estate groups CBRE and CoreNet Global surveyed 138 employers and found that 25% of them are assigned not to desks but to “workspaces with names like huddle rooms and touchdown spaces,” wrote Sue Shellenbarger. More than half of respondents—52%—plan something similar within the next three years.

“Some 20% to 40% of traditional desks are already unoccupied on average because employees are working elsewhere, CBRE executives estimate.” ● Source: wsj.com

The Average Office Worker Spends Almost 1,700 Hours in Front of a Computer Screen Per Year—About 6.5 Hours per Day, According to Contact Lens Maker Acuvue, Which Surveyed 2,000 Office Workers.

Thirty-seven percent of survey respondents said they squint regularly to read what’s on their computer screens and get headaches from focusing on their monitors. ● Source: studyfinds.org

The Great Outdoors’ Great Economic Boost

Rural America is a destination for those who want to get away from city life and enjoy the great outdoors. Now the economic impact of activities such as boating, fishing and hunting has been quantified by the U.S. Commerce Department. Commerce data shows that outdoor recreation accounts for 2% of gross domestic product—$373.7 billion. And its 3.8% growth in 2016 was ahead of the 2.8% growth in the nation’s gross domestic product.

Purchases of outdoor gear represented the greatest share of core outdoor recreation output. Motorized vehicles—chiefly RVs—were responsible for $59.4 billion of the total, while fishing generated $38.2 billion, up 4% from a year earlier. ● Source: wsj.com
Social Media No Longer. It’s Just Mainstream Media Now.

Forget “social media.” Social platforms are the new mainstream media.

“When a racist tweet by Roseanne Barr leads to the cancellation of her top-rated show 24 hours later, when YouTube tightens its monetization policy to howls of protest, when Snapchat prepares to expand into India, when Vogue offers tips on how to perfectly Instagram your wedding, when Facebook ditches ‘trending news’ while testing a ‘breaking news’ feature it’s time to reconsider the term ‘social media,” wrote Mary McNamara.

Twitter, Facebook and YouTube “are as powerful and divisive and reliant on audience-drawing controversy as any 24-hour cable news network. ‘Social,’ with its connotations of community gatherings involving ice cream or strawberries, has got nothing to do with it.”

Source: latimes.com

Second Thoughts on 32-Hour Work Week

Work smarter, not harder. That was the philosophy of Ryan Carson, founder and chief executive officer of education company Treehouse. He promoted a four-day, 32-hour work week for his employees, embracing the idea that higher-quality work could be produced in less time.

That hasn’t worked out. Carson got rid of the 32-hour work week in 2016. “There was a lack of work ... literally a lack of work ethic,” he told GrowthLab founder Ramit Sethi. And the malaise extended to Carson himself. “It created this lack of work ethic in me that was fundamentally detrimental to the business and to our mission,” said Carson, who regularly puts in 65 hours a week now.

Source: businessinsider.com

NEW LIFE FOR OLD BRANDS

It was Cheez Balls that did it.

In June, Kraft Heinz used Planters’ Mr. Peanut character to promote a canister of Cheez Balls—popular in the 1980s and ’90s but discontinued 12 years ago—on eBay, and generated 1.5 billion impressions on social media. Ten days after the canister sold for more than $2,000, the company said it would bring Cheez Balls back to the market for a limited time.

Younger generations, expected to sneer at the brands their parents embraced, are instead warming to classic brands like Cheez Balls, Dawn dishwashing liquid (which promotes international bird rescue—one of the socially conscious campaigns younger consumers embrace) and the beverage SunnyD, backed by a marketing campaign showcasing teenagers with athletic and tech skills.

“Younger people want brands with a conscience—whether the companies take a stand on social issues like the environment and the #MeToo movement, or use ingredients that are environmentally friendly,” wrote Janet Morrissey.

Source: nytimes.com

Kim Shepherd assumed the role of chief executive officer for SkyLine Telephone Membership Corp. (West Jefferson, N.C.) following the retirement of Jimmy Blevins.

Jim Meyers is the new general manager (GM) of Gila River Telecommunications Inc. (Chandler, Arizona).

Chester Caulder is the new GM of Fort Mojave Telecommunications (Mohave Valley, Ariz.).

Mapcom Systems (Richmond, Va.) named Collin Granger as its chief executive officer and president, taking over the position from his father, John D. Granger.
NEW NTCA MEMBERS!

Welcome New NTCA Members!

- ILEC Associate Member
- Subsidiary Member

- RedLeaf Contracting & Utility Service LLC
  Detroit Lakes, Minn.

- 4G Unwired, Inc.
  Melbourne, Fla.

- RADWIN Inc.
  Mahwah, N.J.

- Wheat State Telephone Co., Inc.
  Udall, Kan.

- Etx Celltel, LLC
  Gilmer, Texas

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- Centerline Solutions
  Golden, Colo.

- RedLeaf Contracting & Utility Service LLC
  Detroit Lakes, Minn.

- 4G Unwired, Inc.
  Melbourne, Fla.

- RADWIN Inc.
  Mahwah, N.J.

- Wheat State Telephone Co., Inc.
  Udall, Kan.

- Etx Celltel, LLC
  Gilmer, Texas

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.

- Core Telecom Systems
  St. Louis, Mo.

- ISE Magazine
  Lawton, Iowa

- Centerline Solutions
  Golden, Colo.

- Crossroads Communications Solutions
  Greencastle, Ind.

- Etex Celltel, LLC
  Udall, Kan.

- Wiatel-Western Iowa Telecom
  Lawton, Iowa

- Zurich Technology Solutions
  Irvine, Calif.
USDA Invests $97 Million in Rural Broadband Infrastructure to Improve Service for 22,000 Subscribers in 11 States.

Bridging the digital divide and expanding access to broadband in rural America is a top priority at the Commission. #DigitalDivide

I worked with @PattyMurray on an amendment to help bridge the digital divide and provide for universal access to high-speed Internet, so every American can receive equal educational, business and employment opportunities, no matter where they live.

Broadband access has become essential to education, healthcare, economic development, public safety & so much more. Today's roundtable w/ @RepPaulTonko will help us bring internet capabilities to even more of our rural communities.

Enjoyed meeting with Horry Telephone Cooperative today to discuss the importance of rural #broadband connectivity!

Great feature on MN's own @WeaveGotMaille! Once on the verge of closing, they bounced back w/ the help of fiber internet & post office access & helped the community of Ada's economy grow.
Some insurance companies do not share your mission of connecting rural America. They use confusion as a sales strategy, hoping to keep your business by keeping you in the dark.

That is not the Telcom Insurance Group way.

Telcom Insurance Group will treat you with integrity, kindness and a commitment to keeping you focused on your mission. If you are tired of being kept in the dark, turn to the industry leader — owned by companies just like yours.
It used to be that Washington, D.C., would quiet down a bit in the autumn of an election year. This year, however, the Farm Bill conference committee is hard at work negotiating a compromise between House and Senate versions of that key legislation, which includes reforms to broadband programs; the U.S. Department of Agriculture is finalizing its new e-Connectivity pilot program; the Connect America Fund II reverse auction has been completed; and—drum roll please—the FCC is aiming to address significant shortfalls in Universal Service Fund (USF) support before year-end. I never tire of sharing the excellent work NTCA members and staff do, whether it's an election year or not.

By Shirley Bloomfield

A Critical Seat at the Cybersecurity Table

It was quite an honor that NTCA board member Rusty Moore, general manager and chief operating officer of Big Bend Telephone (Alpine, Texas), represented his small company brethren at the U.S. Department of Homeland Security (DHS) National Cybersecurity Summit in New York City. The event kicked off with a roundtable of industry CEOs and senior government officials to discuss cybersecurity threats and the public-private partnership that protect critical infrastructure and national security. It is encouraging that using a practical risk-management approach—something to which NTCA has long subscribed and championed—was discussed as DHS announced the launch of a National Risk Management Center.

Evolving to Meet Your Needs

I am perpetually impressed by the agility of NTCA members. This industry has weathered technological change, regulatory reforms and shifts in consumer demands, and you keep adapting to serve your communities. In recognition of these efforts, NTCA likewise evolves to meet our members’ needs. We’re creating workforce retention and cost containment options in our benefits plans because we know your employees are your greatest asset. We’re making publications such as Washington Report more comprehensive by covering all facets of the rural broadband landscape. And finally, we continuously refine the content at our meetings to ensure your time out of the office is spent learning what you need to know to excel in your role. I look forward to sharing some exciting changes we have planned for the Rural Telecom Industry Meeting & Expo in 2019.

Into the Home Stretch

That’s a Wrap on Regionals; Next up: Summer Symposiums

From USF budget sufficiency to robocalling, staffing strategies and IoT, discussions ran the gamut during NTCA Regional Conferences this summer. I enjoyed taking the time to recognize the companies that have been NTCA members for 25 and 50 years. It is always refreshing to attend these meetings and learn how our members are adapting to change and innovating. In that same spirit, beginning next year, NTCA will replace the Regional Conferences with Summer Symposiums open to rural broadband board members, employees and executives from any region of the country. Endings can be bittersweet, but it’s time for a new era of educational and networking vehicles.

Thanks to @AjitPaiFCC and @SenateCommerce for committing to provide high-cost USF funding certainty before end of 2018. Good news for rural.
driven to serve
powered by innovation
he Center for Telehealth and e-Health Law (CTeL), located in Washington, D.C., focuses on telehealth laws, policies and regulations at the state, federal and international level, with a mission of providing agnostic research to those interested in telemedicine.

You held an event, “Summit Panel Spotlight: The Opioid Epidemic and the Role of Telemedicine,” earlier this year. **What did you learn from the event?**

The opioid crisis has hit rural areas especially hard. The majority of underserved communities are in rural environments. You have patients located in some very rural populations that literally have no access to mental or behavioral specialists, especially the areas that are hardest hit with the opioid epidemic. To solve some of these problems, they need access to various specialists. It’s such a desert.

The idea was: Could we use telemedicine to provide this care? The answer is yes. Mental and behavioral health services have been used by telemedicine since the start of telemedicine. The problem is that outdated laws—specifically the Ryan Haight Act—make it very hard to prescribe controlled substances to patients that would help recover from being addicted to opioids. The law was written to curb rogue internet pharmacies, to actually stop patients from being able to access controlled substances through the internet. It says that the patient has to be in a hospital or clinic setting for the first-time patient encounter. The provider can come in via telemedicine. That is limiting because if you’re in a very rural area, you might not necessarily be able to be in a location that is defined within the act.

**What do you see as the biggest benefit to telehealth in rural communities?**

It’s transforming how people get access to health care. My grandmother has diabetes, blood-pressure issues and macular degeneration. She was asked by her health-care provider to write down her blood pressure and blood sugar and a couple of other vital signs every morning. In terms of how she reveres doctors, it’s God and then doctors. She never wants to disappoint a doctor. So she oftentimes fudged the numbers. She ended up on not the best of medications. If she had access to a telemedicine unit in her home the information would have been sent over to her nursing team, and her doctor would have seen it. There would have been no ability to fudge the numbers.

We’ve also found that when you’re in a small community you don’t want to be seen going to the mental-health therapist or to the behavioral therapist (if you’re dealing with drug addiction). Being able to essentially bring that doctor into that patient’s home or clinic is life-changing.

**It sounds like you know about these problems from direct family experience.**

I grew up an hour outside of Cleveland, Ohio, but I lived in a healthcare desert. Lots of people are kind of in the same boat. My grandfather had a stroke. There was no stroke specialist available until the next morning. He passed away from complications of the stroke but not until 10 years later. If a neurologist was there that night and gave him TPA (tissue plasminogen activator), the impact of the stroke likely would have been reduced.

We’re finally in a place where technology exists to start minimizing risk and providing patients better access to better quality care.

---

**Christa Natoli**

Deputy Executive Director
Center for Telehealth and e-Health Law (Washington, D.C.)
Your business is growing... Our financial strength is there to help.

In a world of volatility, our expertise with managing risk gives telecommunications businesses the reassurance they need to invest and grow without gambling on their security.

Backed by one of the world's 20 largest insurance and reinsurance companies, we're rated A+ by Standard & Poor's and A (Excellent) by A.M. Best.

With worldwide gross written premium of $16.3 billion and shareholder funds of $11 billion, our capital will be there when you need it.

We're QBE Farmers Union Insurance.

For more information, contact:
800.669.0622, Ext. 842703
farmersunioninsurance.com
How WELLNESS WORKS
TBTC is one of two telecommunications providers in New Mexico striving to make their workplaces hubs of wellness. These NTCA member companies and others are shining examples of how to incorporate employee health and happiness into a successful business plan. A “work-life balance” remains elusive for many, as finding time for exercise, nutrition and socialization can be difficult without support from an employer—support that can manifest in a variety of ways.

Communal time is central to TBTC’s vision of a family-friendly workplace—in addition to the potlucks, the company hosts monthly birthday celebrations with homemade cakes, as well as fresh fruit, vegetables and protein-rich snacks. At all the company events—from ice cream socials to holiday dinners—LaFave has made an effort to incorporate healthy alternatives, and TBTC employees have responded positively to this effort. “They were happy with it—actually, the sweets were the things that people weren’t interested in eating.”

At Tularosa Basin Telephone Co. (TBTC; Tularosa, N.M.), a companywide culture of wellness and health awareness began with something relatively simple: an industrial-sized grill. When Josh Beug took over as general manager of TBTC in 2014, he acquired the grill and started hosting monthly barbeques for his employees. This tradition has continued—spouses are invited and employees contribute personal side dishes to a potluck—and Human Resources and Safety Manager Naomi LaFave said the monthly events have been just one part of a larger project to instill a “family culture” at TBTC.
These myriad efforts by TBTC certainly improve morale around its offices but are merely complementary to the requirements the company had to fulfill to achieve “gold status” as a Family Friendly Business from the statewide Task Force on Work Life Balance in New Mexico. TBTC excels in each of the four criteria for that designation: paid leave, health support, work schedules and economic support.

“I believe that having employees who are able to take care of their personal obligations of family, friends and outside endeavors with the support of their employer makes for a strong, more engaged employee,” said Beug, and TBTC’s policies reflect that mentality. Among other initiatives, TBTC fully reimburses gym memberships for employees and their spouses as long as they exercise twice a week; covers an employee assistance program (EAP) that can be used to pay for three sessions with a therapist; offers flexible work hours and funds education assistance for those employees pursuing an advanced degree.

About 200 miles northeast of Tularosa, telecommunications provider Plateau (Clovis, N.M.) offers similar supports to its employees, and has also been recognized as a gold-level New Mexico Family Friendly Business. Plateau Employee Services Manager Sara Wiest is sure to emphasize the scope and generosity of the tuition assistance program. While Plateau typically asks that tuition be used for classes relevant to an employee’s job or professional interest, “we’ve got lots of people who get MBA degrees,” she said. “The company paid for me to get my master’s, and I didn’t pay a dime.”

Efforts to help Plateau employees access affordable and useful higher education opportunities are further supported by flexible work hours and a generous personal time off (PTO) program. At Plateau, according to Wiest, vacation time does not need to be accrued but is granted as a “bank” at the beginning of each year, and up to 400 hours of PTO can be carried over from one year to the next. For positions with variable shifts, schedules are assigned three weeks in advance to give employees ample opportunity to plan their education, health care and social lives around their work hours.

**Bringing ‘Life’ to ‘Work’**

Employees may feel like they simply don’t have extra time to commit to health outside of work, so some NTCA member companies have addressed this problem by bringing the “life” right into the office.

At ToledoTel (Toledo, Wash.), employees have led multiple FitBit initiatives (most recently: an individual challenge to walk 1 million steps in three months). According to technician Stewart Cutting, who is currently organizing wellness events for the company, employees taking an active role in wellness “will help them with their confidence [and] keeping their mind right.” Exercise “helps with a lot of things, body and mind, and can lead to better production,” Cutting said. Cutting personally exercises every morning before work but admitted “it’s a little hard to do sometimes with kids,” which is true for many working parents. The company has a set of weights in the warehouse, for convenience’s sake. “Some people don’t have a lot of time,” Cutting said. “If they’re able to [exercise] on their lunch break, it’s good that it’s here.”

At TBTC, employees can access health-related resources without leaving the office, too. The company sponsors an annual Employee Health Fair, which includes access to screenings, massages and lessons on financial health, as well as an annual flu-shot clinic and regular lunch-and-learn seminars.

Feeling a sense of camaraderie with your colleagues can bolster your mood at work and contribute to your overall wellness. Knowing that, Arvig (Perham, Minn.) launched its “Arvig Advantage” program, a key component in the company being recognized as a Top Workplace in Minnesota by the Minneapolis Star Tribune in 2017 and 2018. “This recognition is a testament to our more than 700 employees who help to create an outstanding work experience here,” said David Arvig, vice president and chief operating officer.

In describing Arvig Advantage, Marketing Director Lisa Greene said the company “really focuses on employee engagement, empowerment and happiness.” This involves peer-to-peer and employee-to-supervisor recognition programs. Arvig is 36% employee-owned, and Greene said this creates a shared mission to “take care of it inside and out.” In this way, Arvig creates a productive cycle. It takes care of its employees, who take better care of themselves and then act as more successful stewards of the company.

**Casting a Wider Net**

Providing avenues to health within the office is commendable, but often the support network for a healthy work-life balance extends beyond the workplace. Partnerships between local businesses and community organizations are an easy way to bridge the gap between work and life for busy employees.

LaFave cited social responsibility as one of the core values of TBTC, and the company actively encourages its employees to serve the surrounding community—even if it’s during work hours.

TBTC sponsors an annual Day of Caring where employees are paid, as if for a regular work day, to volunteer in their community. LaFave said they visit the homes of low-income and elderly individuals to do repairs and yardwork. On another day each year, TBTC employees visit Holloman Air Force Base for a Chamber of Commerce-sponsored event meant to honor the "life" right into the office.
service members. Employees do everything from face painting to babysitting to cleaning up after the event. Finally, TBTC has an elective donation program wherein the company will match monthly donations to Thrive Southern New Mexico (an organization similar to United Way)—and LaFave said nearly 98% of employees voluntarily participate.

Hancock County, home to NineStar Connect (Greenfield, Ind.), was recognized in 2017 as an Indiana Healthy Community. NineStar, a community partner of the initiative, has joined with local health care provider Hancock Regional Health to bring health and wellness awareness programs to its worksites. NineStar further sends newsletters—full of information on wellness, mental health and physical health—to employees’ homes.

Arvig has embraced the rural community in which it does business. One of the benefits, Greene said, is that the area is full of farmers. Once a week, Arvig acts as a distribution point for extra produce. “Farmers grow extra produce and … they bring their extras to town. Employees have access to that once a week during the summer, and it’s a nice way to get fresh, locally-grown produce,” Greene said.

No matter how a company chooses to support employee health and wellness, it’s clear that the return-on-investment is high. “Studies have shown that costs associated with creating family-friendly benefits are more than made up in improved productivity, employee morale and employee retention,” according to Giovanna Rossi, head of Family Friendly New Mexico. And speaking from personal experience, Wiest said, “Anytime I do an interview, and ask ‘Why do you want to come to work for Plateau?’ 80% to 90% of the time, people say, ‘I want the Plateau benefits. I know people who work here, and I want that.’”

Wiest said employee satisfaction leads to people staying with the company for decades. “They grow up [here.] This is where they make their careers.”

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

Plateau has organized or supported many local community events focused on wellness.

The telecom business is not a game.

But you still need a good team. At MACC we take customer support seriously. We use a unique three-tiered support system to connect our clients to their own dedicated team of associates. When our clients reach out for assistance, their MACC team is ready to help.

Don’t have a team at your BSS/OSS vendor? Then it’s time to consider MACC.
In the early days of broadband, it was an article of faith that adding a video service would help a provider pay for upgrading its network and would increase take rates for internet access. Today, neither of those assumptions appears to be borne out. Video services are unprofitable and video take rates are declining while broadband margins and take rates remain strong. Still, the reports of video’s demise are greatly exaggerated. Most customers want video, and most telcos offer video service if their networks are robust enough.
Not to Offer?

Negotiating Power

While the largest telephone and cable companies make healthy profit margins on video, those with less negotiating power don’t. Video never became a cash cow for small providers, and in the last five to 10 years, making a profit has become even more difficult. Consolidation in the content industry led to enormous increases in cable programming costs—especially for sports—and in retransmission fees for local broadcasting channels. Carriage requirements also have increased, meaning that providers must carry—and pay for—ever more channels. As a result, most rural broadband providers barely break even on their video services.
In fact, the only way many telcos have continued to break even is by passing along cost increases to their customers—and letting customers know why their costs are going up. Ross Petrick, general manager of Alliance Communications (Garretson, S.D.), said retransmission fees are now "an actual fee listed on the bill for customer education, and not 'baked into' the costs shown on the website." He added, "Trying to explain why they have to pay for free TV is extremely difficult, especially because they can't get some of those channels over the air!"

At some point, customers will be unwilling or unable to pay these cost increases, but until then, most telcos continue to act reluctantly as "the collection agent for Hollywood, sports teams and local broadcasters," as Petrick put it. Jean Edhlund, video products partner for Cooperative Network Services (Menahga, Minn.), who advises many telcos on channel packaging and negotiations, said, "The consumer will have to be the one to say, 'We're done; we can't do this.' The operator doesn't want to be that person."

Though the percentage of households subscribing to video services is falling and other customers are "cord-shaving," or subscribing to lower-tier services, the majority of customers still subscribe. Different demographic groups are impacted differently. Younger, more tech-savvy customers are more inclined to rely on over-the-top services, but older and less tech-savvy customers show no signs of cutting the cord. "Some of the older customers watch TV all day," Edhlund said. "So there's a value [to them] to just watching what's there." In fact, Edhlund said, people are watching video more hours per day than ever before.

**Take Rates**

Whether take rates will continue to fall is unclear. On the one hand, the population as a whole is becoming more technically sophisticated and less fazed by over-the-top offerings. On the other hand, customers are finding that their other options aren't any less expensive. Cable and satellite promotional deals expire after a few months, and over-the-top services—which get most of their programming from the same content owners—are raising their rates, too. Edhlund points out that every OTT service raised its rates this summer. "There's no way they are profitable to attract much enthusiasm. One problem is that authentication is difficult and cumbersome; another is that customers must still subscribe to the full cable TV package to get programming on their mobile devices.

Similarly, "skinny bundles" of only a few essential channels were seen a few years ago as a way to keep would-be cord cutters attached to TV, but, by tying channels together, content owners have foreclosed this possibility. "If I want to carry NBC Sports, they may dictate that I carry MSNBC or the Golf Channel," Petrick said.

**STELA**

One small ray of hope is that the Satellite Television Extension and Localism Act (STELA), which sunsets at the end of 2019, will come up for reauthorization next year, giving Congress an opportunity to address the retransmission issue. Although Congress failed to act in 2014, the last time STELA was renewed, retransmission costs have increased greatly since then.

Other than—or in addition to—continuing to provide traditional video services, telcos have several options, none of them particularly appealing. They can resell over-the-top services under their original brands or "white-labeled" as their own brands. Either option can yield a small amount of referral revenues. However, these OTT services are usually subject to the same contractual obligations as linear TV, so customers still have to pay for dozens of channels they are not interested in.

For example, Fidelity Communications (Sullivan, Mo.) plans to offer a MobiTV solution to customers later this year as an alternative to traditional pay TV. The MobiTV app will deliver programming from Fidelity's headend via the internet to customer devices such as Rokus, Apple TVs or smart TVs. Because of restrictive programming agreements, the channel lineup will be the same as the traditional TV service. The main benefit for Fidelity is avoiding the cost of set-top boxes. "It will mean a reduction in capex, plus we won't have to roll a truck, so there are opex savings as well," said Andrew Davis, the company's vice president for programming and vendor contracts. In addition, customers using the service may opt for higher bandwidth tiers.

"Are these over-the-top providers friend or foe?" Davis asked. "We've changed our tune on that. We used to think they were competitive, but consumers want more choices and additional bandwidth as well."

Another strategy is represented by CL Tel (Clear Lake, Iowa), which, according to Edhlund, helps customers figure out which streaming service is most suitable for them based on their channel preferences and viewing habits. "They're using it as a retention tool," she said. "It builds trust with the customer, and to be that trustworthy partner keeps you as a broadband customer."
Heading for the Exits

Finally, telcos can stop selling video services altogether. This is what Planters Telephone Cooperative (Newington, Ga.), decided to do in 2011, and it has no regrets, according to CEO Stephen Milner. When Planters began building fiber to the home, it signed on to the IP-Prime service (a so-called “headend in the sky”) offered through NTCA—The Rural Broadband Association and NRTC. It went through a long beta-test period and had just begun a commercial service when IP-Prime, after a number of setbacks, announced that it would have to switch its middleware software.

By this time, Planters had its doubts about when, or whether, it would get to cash-flow positive on video. “We realized quickly that the money was with the programmers, not with the last-mile deliverer,” Milner said. The company was entitled to conversion help from Cisco, the original middleware provider, but opted instead to apply its credits toward routers that would bolster its broadband network.

“Our thought process was that video would come in over-the-top form in the next couple of years,” Milner explained. “If we wanted to be ready for high-definition streaming, we had to provide the type of network that would be able to deliver video. That would be a wise use of the capital. So we exited TV … Were we going to throw a lot of capital and resources to a no-margin business, or would we take the long-term run, which is broadband? We decided to allocate our resources to the highest-margin business.”

There was some pushback at first, including a headline in the local newspaper saying “Planters Telephone Hangs Up on Video.” Then Planters’ customers—or those who still wanted a traditional video service—went back to satellite video. They had hoped Planters would be able to offer video for less, but once they saw that wasn’t going to be possible, “they realized they weren’t as dissatisfied with satellite as they once had been,” Milner said. Contrary to expectations, the company kept its broadband service and even its landline phone service (the number of Planters’ access lines has actually increased for the last three years).

Milner is thankful that Planters’ board was supportive of the broadband-first strategy. With the capital and labor resources freed up by giving up the video service, the company built out an expansive broadband network and now provides ISP services for seven other telcos in Georgia and Florida. “We’ve been able to improve that offering through scale,” he said. “It’s been the best thing for us.”

Masha Zager is a freelance writer. Contact her at mashazager@bridgewriter.com.
Rural Economic Development
“Every city that is trendy or successful in some way attracts people from someplace else. ... There is importance in the stories people tell themselves about their city’s or region’s success. They have to think of themselves as a city—a distinct region and culture, not as part of an urban sprawl. The places we’ve been most definitely have a sense of themselves as distinct entities, with their own traits and strengths.”

—James and Deborah Fallows, “Our Towns: A 100,000-Mile Journey Into the Heart of America”

James and Deborah Fallows earlier this year published “Our Towns: A 100,000-Mile Journey in the Heart of America,” a paean to the scrappiness, innovation and plain old hard work of prospering rural communities, and an examination of all the things going right outside of America’s urban centers. The Fallows’ focus was on small, committed groups of people holding deep interests in their communities and building businesses, institutions and landscapes of value without the benefit of huge economic development engines and generous cash flows.

The small towns and regions that boast rural broadband companies have a distinct advantage when it comes to economic development: the broadband companies themselves. Not only are these providers capable of creating wired and wireless connections, they’re uniquely positioned to exercise a little do-it-yourself (DIY) economic development by connecting people, resources and opportunities.

Over 500 people work in the New York City Economic Development Corp., one of the country’s largest EDCs. The value of its efforts in 2017 amounted to just over $700 million for an area with a population of 8.6 million. Eight hundred miles to the south, in Abbeville, McCormick and Anderson counties in South Carolina, the numbers aren’t nearly as big (around 37,000 residents), but the impact is a point of pride for those who helped create it.

In an office tucked into the WCTel headquarters in Abbeville, Wilder Ferreira undertakes a variety of economic development projects as the director of the Freshwater Coast Center for Rural Development (FCCRD), a partner project of Clemson University’s Cooperative Extension, the Freshwater Coast Community Foundation (FCCF) and WCTel. The partnership has been critical in cultivating growth in the area, from facilitating more than $1.3 million in economic development grants that drove more than $1 million in additional sales to founding...
two new farmers markets that have scored thousands of visitors and created more than $150,000 in sales.

These are not the metrics of a huge economic development machine like New York City’s. Instead, Ferreira’s a one-man show, and he’s OK with that.

“My work centers on not only attracting more businesses, but in motivating existing businesses towards growth,” he said. “It’s the aggregation of the little wins that provides the biggest impact.”

A key part of this measured growth strategy is the FCCRD’s continuing education business training seminar series. It addresses topics chosen by businesses themselves, with Ferreira and other local experts providing information and advice. This hands-on approach, like so many things in rural America, requires a basis of community-centered thinking partnered with a heavy dose of DIY-based entrepreneurial action. And it helps to have the right person in the job.

“Rural economic development is a function of personality, not position,” Ferreira said. “A rural economic development director needs to be a combination of village elder, social worker and businessperson. They need to have an entrepreneurial mindset, but also the ability to build rapport, establish credibility and work altruistically in the best interests of the region.”

Ferreira’s office at WCTel is an important part of the equation as well. He cites broadband providers’ natural positions as community connectors, communicators and resource providers as an asset for economic development work.

“The immediacy of the response from working at WCTel is a huge help. If I’m looking for a person or a business within a certain demographic or industry, a member of the staff here can set me in the right direction, making introductions or suggesting partners,” Ferreira said.

WCTel provided office space in conjunction with funding from the FCCF and Clemson. But the success is the culmination of community effort.

“Much of what has been done, and the success of any future projects, comes through Wilder’s efforts,” said WCTel Chief Executive Officer (CEO) Jeff Wilson. “He’s collaborated with a number of entities and agencies, as well as several of our WCTel board members, to kick off rural development projects for our communities. WCTel has largely served as a resource and aid to those efforts.”
Mayfield, Ky.

Many large-scale economic development corporation practices focus on business recruitment to provide financial benefits to their regions. But some communities are finding similar financial gains can be had without wooing a new business. Instead, communities like Mayfield, Ky., are leveraging their states’ film offices and production incentives to bring in filmmakers with money to spend and movies to make.

Leo Staurulakis, executive vice president at JSI (Greenbelt, Md.), and his wife Cheryl are partners in a film production company called Orama Filmworks, LLC, that recently took advantage of the state of Kentucky’s generous film production incentives to film in Mayfield, home of WK&T Telecom. While the choice was influenced by the incentives, Orama’s decision to pick Mayfield wasn’t a coincidence.

“Mayfield was perfect because it had the locations we needed, but also because it was home to WK&T. WK&T CEO Trevor Bonnstetter was instrumental in getting us there, and in helping keep our production on schedule by knowing key decision-makers, being a resource and supplying local connections for things we needed,” Cheryl Staurulakis said. “Trevor and his team helped connect us to the local economic development office, the mayor, the sheriff and various businesses within the community. He was an excellent facilitator.”

The film’s production budget included spending on local catering, hospitality, security and creative services, as well as securing various filming locations around town. Townspeople, curious about the filming and excited to see something unique happening in their town, got in on the action as well. Some served as extras, others worked on the set, and others, like a local RV dealership and a hardware store, provided supplies and backdrops for film crews and scenes.

In all, Orama spent about $300,000 in Mayfield over five weeks of shooting. It’s a process Staurulakis sees as replicable in other rural telco areas.

“Rural communities are different from large cities in the intangible amenities they provide. In small communities, there is usually less red tape and fewer delays, resulting in faster production times and more flexibility for producers,” said Staurulakis.

And the investment doesn’t stop once filming ends. Staurulakis said the excitement about the film continues, and Orama plans on organizing a showing of the film in Mayfield once production is complete.

Like any good DIY project, DIY rural development is an exercise in experimentation and innovation. Telcos, as connectors and resources within their communities, have a unique role to play in cultivating opportunities for growth within their regions.

Tara Young is a freelance writer. Contact her at tara.young@gyremarketing.com.
Innovative Systems has recently launched a Multi-Generational TV solution called MG-TV. MG-TV provides the functionality desired by younger video customers without alienating older ones who want a more traditional guide interface and remote controls. MG-TV leverages the previously invested capital in your IPTV system and existing STBs and provides low-cost system enhancements to complete the MG-TV OTT solution. MG-TV supports any combination of existing STBs, Wi-Fi STBs, iOS and Android™ devices, Roku™ and Apple TV™. This will allow an end-user to continue using existing STBs in some rooms while at the same time supporting OTT devices for other end-users on the same account.

MG-TV is administered as one system for both IPTV and OTT with APIs for automated provisioning, cloud content administration and reporting.

MG-TV -Specific Benefits and Features

Key Components of MG-TV

- Virtual remote controls, remote logging and troubleshooting tools
- Integrated reporting and monitoring including channel statistics, network connectivity tools and diagnostics from end-to-end
- Integrated APIs for integration with billing systems
- cDVR, Restart, Pause Live TV, VOD
- Encryption (InnoCryption™) across multiple devices

“As technologists, we often think that everyone wants the same functionality and features that we do when a better measure is to ask what features your mother would want.”

Roger Musick
Founder and CEO, Innovative Systems

“Our customers aren’t ready for a total change to app-based video, and with the MG-TV solution from Innovative Systems, we can have the flexibility of blending in a Set-Top Box Free service down the road.”

Eric Trump,
St. John Telco, Washington
Is a Set-Top Box Free Video Service a Dream or a Reality?

It is not realistic to go from traditional linear video one day to an app-based set-top box free environment the next. Change is difficult, especially for your older customers, and the logical approach is to slowly transition away from STBs by putting together a network that can co-exist with or without them. The live streaming TV transition is also important in the user experience by giving customers the choice of a Netflix-looking poster guide or a traditional linear guide.

We always overestimate the changes that will occur in the next two years and underestimate the changes that will occur in the next 10. MG-TV gives you a logical video migration strategy from Innovative Systems, a reliable vendor with decades of loyalty to the rural telecommunications marketplace.

“*Our MTA Stream product is giving consumers the freedom to choose additional subscription packages that suit their lifestyle; it’s a game changer. We have focused on ensuring that this is an easy product for consumers to activate and use. We’re excited about this new product.*”

Michael Burke,
MTA, Alaska
How do you define “social engineering”?  
Social engineering is “any action that influences a person to take an action that may or may not be in their best interests.” This is a broad definition, but I use it because I don’t always see social engineering activity as negative. Even if we don’t realize it or label it social engineering, we use these skills every day communicating and interacting with everyone.

How does social engineering fit with cybersecurity?  
Social engineering is broken into four basic vectors: Phishing, Vishing, SMShing and Impersonation. “Phishing” refers to email-based attacks to get you to click a link, open an infected file attachment or just offer up some valuable information in reply. “Vishing” is short for “voice phishing” or a phone-based attack involving a conversation between attacker and target. “SMShing” refers to SMS or text-based attacks—similar to vishing, but via texting. “Impersonation” is an in-person attack where the attacker pretends to be someone they are not. I’ll say again though that all of these social engineering vectors can be exploited for positive or negative results, depending on the intent of the attacker. Professionals need to know how each of these vectors work in order to protect and advise their clients.

How might someone use social engineering to attack a rural telco?  
Off the top of my head, here are two:  
1) The executive assistant at the telco receives an email from what appears to be the general manager telling them to send a wire transfer or gift card information or some type of easily accessible funds. The email looks like it is coming from the GM’s address and even includes their standard signature. It often arrives during a time the GM is traveling or away from the office for an extended period of time. This phishing attack is called a BEC (Business Email Compromise) scam. In the past five years, 78,000 attacks have resulted in a total of $12 billion in losses.  
2) An employee receives a call from someone posing as tech support for one of their third-party vendors. They are informed about an urgent threat and told to reset their password right away. The “tech” walks them through the entire process and in turn now has full access to their account. The victim doesn’t even know they have been attacked. In fact, they think they have helped in thwarting an attack. We use this type of attack on a daily basis, and it is highly effective.

Are social engineering attacks becoming more advanced?  
Yes, more common and more sophisticated. Especially when it comes to phishing and SMShing, attacks are becoming much more realistic and hard to identify. Whereas we used to tell people to look for misspellings or strange grammar, attackers are using spell check and being more careful crafting their messages. What used to be easy telltale signs of a malicious message are no longer there.

Who are the people behind these attacks, and what might their motivations be?  
It can be anyone really. Maybe someone from a different country with a ruined economy looking for a quick score of cash. Maybe your neighbor seeking some sort of revenge. Maybe someone who is bored and just looking to see what they can get away with. Attackers do not fit any one particular profile, and their motivations vary widely.
What are some initial steps companies can take to mitigate potential social engineering attacks?
The first thing a company can do is develop and communicate clear policies for employees to know what to do when (not if) they encounter an attack. How to identify it, handle it, report it and so forth. The next recommendation is for companies to test their employees with realistic simulations. And finally, be sure to follow up on the results of this testing with solid education for employees. Good training in the area of social engineering threat mitigation should not involve computer-based passive information. It should be interpersonal discussions and demonstrations of how attacks look and feel in the real world.

How are social engineering techniques being used for purposes of good?
When I realized that being a professional social engineer can actually be utilized to accomplish good things, I formed a nonprofit group called The Innocent Lives Foundation. Its mission is to tap the skills of the professional white hat social engineering community to unmask those who prey on children anonymously online. You can see more about this project and our mission at www.innocentlivesfoundation.org.
By Marilyn Blake

Active Shooter Training: An Employer Necessity

It seems like almost every week, we see and hear on the news about an active shooter situation somewhere in America. These situations are often unpredictable and evolve very quickly. Most of the time, chaos ensues, and people are hurt or killed. The U.S. Federal Agencies define an active shooter as "an individual actively engaged in killing or attempting to kill people in a confined and populated area." Most of the time, the shooters select their victims at random, don’t try to hide their identity and are suicidal. Escaping the police is not a priority. Many times, schools, events, houses of worship, and businesses are the targets of the active shooters. Because active shooter situations are often over within 10–15 minutes, before law enforcement arrives or pretty quickly afterward, knowing what to do can save lives. You have to be prepared both mentally and physically to deal with the active shooter situation until the police arrive. When they arrive, their first priority is to take out the active shooter. They will not stop to help those who are injured. The rescue squad/ambulance with first responders will be coming to help the injured. Best practices in coping with an active shooter situation are:

- Be aware of your environment and any possible dangers developing. Do you know what a gunshot sounds like?
- Always take note of the two closest exits in any facility you visit. Remember, it might be behind you.
- If you’re in an office, stay there and lock/secure the door.
- If in a hallway, get into a room and lock and secure the door.
- As a last resort, you can attempt to take the active shooter down. When the shooter is in close range and you cannot flee, your chance of survival is greater if you incapacitate the shooter.
- Call 911 when it is safe to do so (be sure to silence your phone).

If you’re involved in an active shooter situation, you really have three options, which you should generally practice in this order: run, hide and fight.

Law enforcement usually arrives in teams of four, in full gear, with rifles/shotguns/handguns and pepper spray, tear gas or tasers. You should follow their commands exactly, as they are trying to take out the shooter and control the situation and will not have time to explain to you why they’re telling you a specific command. Raise your hands and spread your fingers and keep your hands visible at all times. Avoid making quick movements toward officers and pointing or screaming. If they ask you, the officers will want to know the location of the shooter or shooters, any physical description you can give, the type of weapon they have and the number of victims. Once you’ve reached a safe location or the assembly area, do not leave until law enforcement questions you or instructs you to do so.

Have a Plan

As an employer, you have an Emergency Preparedness or Business Continuity plan, and that plan should include active shooter planning. The Department of Homeland Security, FEMA and your local police departments/law enforcement can help you with specific training and offer resources. Your plan should include:

- How you’ll report emergencies and to whom.
- Emergency kits with first aid supplies, floor plans, flashlights, employee roster/contact information, radios.
- Evacuation plans, safe areas, assembly area.
- Local area hospital contact information.
- Plan for notifying individuals in the location, in other offices, law enforcement and medical providers.

Encourage law enforcement to do an active shooter drill at your facilities. While not all active shooters are work-related, certainly many of them are. You should also be aware of indications of workplace violence and take actions accordingly. People do not usually just snap; there are usually indicators of potentially violent behavior if we pay close enough attention. Look for noticeable signs like increased use of alcohol, unexplained absences, decrease in attention to hygiene and appearance, depression, severe mood swings, explosive outbursts, suicidal comments, or escalation of domestic or financial problems. These could be signs of triggers for an active shooter situation at your workplace. Make sure you have a workplace violence plan to help managers recognize these signs and deal with them before there is violence at your workplace.
THE FIRST STEP STARTS WITH FINLEY ENGINEERING

COMPETE EFFECTIVELY AND EFFICIENTLY

Finley is one of the most sought after network design consultants for developing and implementing high speed broadband strategy. With speed and efficiency critical in today’s technology-intensive landscape, we help our clients put innovative network solutions to work.

FinleyUSA.com
800-225-9716
A Journey From Minnesota to Hawaii Begins With a Single Step

There are 3,863 miles between Minnesota and Hawaii, and last year, employees at Runestone Telecom Association (Hoffman, Minn.) attempted to walk every one. As part of its companywide wellness program, Runestone hosted a “Walk to Hawaii” last year.

Runestone Marketing Coordinator Carolee Haack recently took over the wellness program and tried to think of creative new ways to get her colleagues moving—or, perhaps, to help them realize how much they already move. Runestone has 22 employees, the majority of whom spend their days outside of the office. These employees were already relatively active—going on calls, installing equipment, climbing stairs and traveling throughout Runestone’s service area—but weren’t “getting credit” for all that activity.

Participating in additional wellness activities could feel burdensome, Haack explained, and she wanted to find a way to “not make it seem like it was such a chore.”

She pulled out a measuring tape and determined the perimeter of the company garage—which is attached to the main office building. Haack calculated the conversion between the number of feet in the garage and mileage, so that employees could walk during lunch or breaks and accumulate more total miles. Haack said the “Walk to Hawaii” theme of the fitness challenge helped keep employees engaged and motivated because “people need a visual” and the challenge gave them a vision of their progress. “Instead of saying, we’re walking so many miles,” Haack said participants could imagine that “now we’re in Colorado, now we’re in California, now we’re floating on the Pacific Ocean.”

Haack said one of the benefits of officewide fitness challenges is that the challenges can help employees “find ways to be together as a group.”

“You kind of forget about how to connect with each other sometimes—we’re all busy,” Haack said.

At Pioneer Communications (Ulysses, Kan.), director of human resources Sarah Terrazas noted similar benefits for the company’s “Walk Kansas” initiative. Fitness activities “help to build relationships with the employees,” Terrazas said. “Maybe you don’t always work with somebody in accounting. This way the employees might run into each other more than they would during the workday.”

Pioneer’s step-tracking challenge—which is similar to the “Walk to Hawaii” challenge at Runestone—was an easy way to introduce wellness into the daily routines of employees.

The “Walk Kansas” challenge involved a partnership with the local extension agency, which already had established teams that logged walking and other physical activities. Throughout the challenge, employees can tell how far “across the state” they have walked based on the number of steps they’ve taken. In addition to making the activity more fun, Terrazas said, it’s “a way to hold each other accountable.”

The “Walk Across America”-themed initiatives are a straightforward way for telcos of any size (Pioneer has 101 employees to Runestone’s 22) to integrate wellness into their workplaces. The challenges are accessible and easy to complete during normal office hours, and they create a visible goal for employees. Maybe you can’t vacation in Hawaii this year—but at least you can “walk” there!
<table>
<thead>
<tr>
<th>Page</th>
<th>Advertiser</th>
<th>Phone</th>
<th>Website/Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>CoBank</td>
<td>800-542-8072</td>
<td><a href="http://www.cobank.com">www.cobank.com</a></td>
</tr>
<tr>
<td>33</td>
<td>CommSoft</td>
<td>888-COMMSOFT</td>
<td><a href="http://www.commsoft.net">www.commsoft.net</a></td>
</tr>
<tr>
<td>11</td>
<td>DVEO</td>
<td>858-613-1818</td>
<td><a href="http://www.dveo.com">www.dveo.com</a></td>
</tr>
<tr>
<td>35</td>
<td>Finley Engineering</td>
<td>417-682-5531</td>
<td><a href="http://www.fecinc.com">www.fecinc.com</a></td>
</tr>
<tr>
<td>30-31</td>
<td>Innovative Systems, LLC</td>
<td>605-995-6120</td>
<td><a href="http://www.innovsys.com">www.innovsys.com</a></td>
</tr>
<tr>
<td>21</td>
<td>Mid America Computer Corp. (MACC)</td>
<td>402-426-6222</td>
<td><a href="http://www.maccnet.com">www.maccnet.com</a></td>
</tr>
<tr>
<td>15</td>
<td>National Information Solutions Cooperative (NISC)</td>
<td>866-999-6472</td>
<td><a href="http://www.nisc.coop">www.nisc.coop</a></td>
</tr>
<tr>
<td>5</td>
<td>Power &amp; Telephone Supply Co.</td>
<td>901-324-6500</td>
<td><a href="http://www.ptsupply.com">www.ptsupply.com</a></td>
</tr>
<tr>
<td>17</td>
<td>QBE Farmers Union Insurance</td>
<td>800-669-0622</td>
<td><a href="http://www.farmersunioninsurance.com">www.farmersunioninsurance.com</a></td>
</tr>
<tr>
<td>7</td>
<td>Sasktel International</td>
<td>877-242-9950</td>
<td><a href="http://www.sasktelinternational.com">www.sasktelinternational.com</a></td>
</tr>
<tr>
<td>13</td>
<td>Telcom Insurance Group (TIG)</td>
<td>800-222-4664</td>
<td><a href="http://www.TelcomInsGrp.com">www.TelcomInsGrp.com</a></td>
</tr>
<tr>
<td>3</td>
<td>UDP</td>
<td>210-828-6171</td>
<td>www udp com</td>
</tr>
</tbody>
</table>

IN THE NEXT ISSUE

- Regulatory Outlook for 2019
- Legislative Outlook for 2019
- RTIME Product Previews

To submit article ideas, send proposals to the editor at publications@ntca.org.

Check out the Rural Telecom Solution Providers Directory at www.ntca.org.

Visit our website at ruraltelecom.org

The Rural Telecom website includes the digital edition of the magazine, exclusively for subscribers, and articles that can be enjoyed by all visitors.

For advertising information, contact 703-351-2089 or SALES@ntca.org.
Where We Watch Streaming Content

Where do you watch your streaming content? The answer might surprise you.

70% of Netflix streams are watched via connected TVs, not on mobile devices or PCs.

“It’s a good reminder that not everything is moving to the phone,” wrote Peter Kafka at recode.net.

Subscribers to Netflix sign up via a phone (30%) or PC (40%), but within six months, “most viewers have moved from their smaller screens to the biggest one in their house.” The trend holds across different types of content. “It doesn’t matter what kind of Netflix show you’re watching,” Kafka wrote. “Dramas, kid shows, Chris Rock specials all end up on your TV, when you can.”

---

Christian Hamaker is editor of Rural Telecom. Contact him at chamaker@ntca.org.
Resources You Can Tap Into.

Whether you need additional guidance on cybersecurity, human resources statistics or the latest news on the rural broadband industry, we have a publication for you.

FEATURED PUBLICATION

2017 HR Survival Kit
Why reinvent the wheel? With NTCA’s HR Survival Kit, you don’t have to. The Survival Kit comes with 3 different parts: position descriptions guide, sample employee policies and management procedures. Bundle them together and save.

We’ve done the legwork so you don’t have to.

PURCHASE TODAY ▶️ NTCA.org/estore
More Integrated Solutions for the Telecommunications Market Than Any Other Vendor!

We have deployed over 1,000 advanced, pre-integrated TDM Voice, SIP, IPTV and OSS/BSS solutions to the ILEC market.