

BROADBAND AS A BRIDGE FROM HERITAGE TO THE FUTURE

Kim Harber Morgan Gray Mikhail Sundust

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Joshua Seidemann, Editor



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n June 2022, the Smart Rural Community[™] (SRC) initiative of NTCA–The Rural Broadband Association hosted SRC Live!, a summit that convened rural broadband providers with application developers and experts from agriculture, economic development, education, health care, and other industries. The meeting featured interactive panel discussions and other opportunities for critical sectors serving rural spaces to meet and exchange knowledge. The following discussion featured a rural internet service provider (ISP) executive and two young leaders from Tribally owned telecom systems.

Kim Harber Senior Vice President, Madison Communications (Staunton, Ill.) Smart Rural Community Advisory Council

Smart Rural Community is not a "program." It is an initiative. It is an opportunity to coalesce, as providers, around what is important. It's about change. It's about adaptation.

I want us to listen carefully to leadership and action. Today you've heard from agriculture, education, economic development, and communities. Yes, you are the broadband provider. But more importantly, you are a member of that community. What you are providing is a transformation from heritage to the future. We are here to capture the future, and we are joined by Mikhail Sundust and Morgan Gray. Mikhail directs the Digital Connect Initiative at Gila River Telecommunications, Inc. (GRTI), a Tribal-owned broadband provider in Chandler, Arizona. Morgan is a rising second-year law student at George Washington University in Washington, D.C., and she is also the first recipient of the Foundation for Rural Service James L Bass Legal Scholarship.

Mikhail Sundust, Executive Director, Digital Connect Initiative

Thanks, Kim, thank you everybody for inviting me to be here. I am the Executive Director of Digital Connect. We are a subsidiary of GRTI and an unincorporated non-profit of the Gila River Indian Community.

GRTI is Tribal-owned and our primary service audience is the community members within the reservation. There are approximately 13,000 residents of the reservation

just south of Phoenix. We are the primary service provider for the residential, commercial, and Tribal government customers on the reservation. Digital Connect is more focused on the people side of things than the technical side of things. I get a lot of questions about IPv6, and I'm like "What?" I'm not really on that side of things. I'm more about, "How do we help people stay connected? What digital literacy skills or tools do our elders need? What do our youth need?"

Morgan Gray Law Student, Foundation for Rural Service Scholarship Recipient

Good morning everyone. I'm a rising 2L law student at George Washington University. I was fortunate enough to receive the inaugural James L. Bass Legal Scholarship from the Foundation for Rural Service, which I'm incredibly grateful for. But I am also a proud Chickasaw citizen and for the last four years I've had the immense opportunity of serving the Chickasaw Nation's telecommunications team.

"I get a lot of questions about IPv6, and I'm like 'What?' I'm not really on that side of things. I'm more on, 'How do we help people stay connected? What digital literacy skills or tools do our elders need? What does our youth need?"

In 2017, the Chickasaw Nation established Trace Fiber Networks. It is a wholly owned subsidiary of the Chickasaw Nation, and in fact the name was inspired by our cultural heritage. Trace comes from the Natchez Trace—which, if anyone is familiar with Mississippi, Alabama, Tennessee area, the Natchez Trace was historically used as a trade route for the Chickasaw people. And we believe that fiber and broadband are the modern-day version of those historic trade routes.

For the past four years I've done policy work for Trace Fiber Networks and the Chickasaw Nation. It's been one of the most empowering opportunities and something that I hope to be able to do for the rest of my life.

Kim Harber

Our future is in good hands in both of your areas, but I really want to talk to this group and I want you, the audience, to translate our discussion into outcomes for your communities. It was very evident when I spoke with our panelists last night that they weren't just deploying technology because everybody else has it. What I heard from them—and I'm going to start with Morgan—is that they are utilizing and understanding technology.

As our future young leaders, the principles behind their actions are to bridge the pride of the past into what we believe, and what they believe, is the future.

Morgan Gray Trace Fiber Networks operates a nearly 500-mile fiber optic network that encompasses the Chickasaw Nation's territorial boundaries. Within the last three or four years we've built about 300 route miles of fiber, and we also have a partnership with the Oklahoma Community Anchor Network, and specifically One-Net which is the organization that administers the Oklahoma community. We also have Anchor Network, where we coordinated a fiber swap for the remaining roughly 200 miles of fiber.

> Our Chickasaw Nation customers include about 120 Chickasaw Nation facilities, including our gaming locations, schools and libraries, health care facilities in schools, and senior sites. It has been incredibly empowering to be a part of this from the beginning.

> But this is beyond just connecting all of the people in our community, as we serve non-Chickasaw Tribal members and Oklahomans at large. Oklahoma is a little bit wonky when it comes to Tribal lands. We don't have reservations in the traditional sense. The Chickasaw Territory is inhabited by Chickasaw people and non-Chickasaw people alike.

The Chickasaw Nation has a number of incredible programs that we provide for our citizens, and a lot of them are tied to the revitalization of our culture. Within the last three years our last remaining speaker of the Chickasaw language, who only spoke

Chickasaw, passed away. And so within the last five years, the Chickasaw Nation has partnered with Rosetta Stone to create a language program for our people. And not just our people; anyone who is interested in learning the Chickasaw language can use this program for free. It's just one of a number of programs that we have been able to really bolster with our fiber network.

And we have wireless spectrum, too. We participated in a number of wireless spectrum auctions within the last couple of years. It has been incredibly important to us to be able to own this infrastructure ourselves, to be able to have that autonomy over our broadband needs and to be able to serve our people as the Chickasaw Nation.

Kim Harber

The strategy here again has been to transform heritage into the future generations. Mikhail, tell us what you're doing with DCI and how broadband has been transformative.

Mikhail Sundust When I came on board at Digital Connect, I was thinking, "How do we implement digital literacy training for right now, but also programs that will impact us several generations into the future?"

"... we believe that fiber and broadband are the modern-day version of those historic trade routes."

And so we think about a three-tiered structure. Right now, people need digital literacy skills. Elders in particular have been our primary clientele because the elders want to stay connected to community meetings. During the pandemic, our community meetings were held on Webex, Zoom, and similar platforms but a lot of times the elders struggled to participate in community meetings. They were frustrated and expressed, "Well, in the past I could go down to the Community Center and have my voice heard." Enabling the elders to raise their hand virtually, to have their voice heard - that was addressing immediate needs of digital literacy.

We are also looking at workforce development programs. That's the middle term. And then long term of course, how do we help the youth? We want the younger folks in our community to feel inspired and empowered to continue this company that we created. Not just GRTI, but also the heritage of service.

Kim, you asked me about how this connects to our heritage.

Our people have been in the Gila River and Salt River Valleys in Phoenix for hundreds of years. Our people were the first to farm in this desert valley where there is very little rainfall. But there are two huge rivers, the Gila River and the Salt River. Our people constructed hundreds of miles of canals long before European contact. This heritage of industriousness and building out a network of irrigation lines to support not only their lifestyle but also travelers who came through, that's a part of who we are as a people.

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And so, when we talk about supporting the next seven generations, we're talking about inspiring the young people and giving them the tools they need. Investing in them now so that they can sustain us into the future.

Kim Harber

I'm going to stay with Mikhail here and move from the history lesson that you're hearing -- and all of you know about this in your communities -- to the workforce development effort he is speaking about. Because I was inspired by the vision, the transformation of leadership in that workforce development effort.

Mikhail Sundust We are noticing throughout the industry, and a lot of you probably have noticed similar trends, that there are a lot of folks who are ready to retire in the next five to ten years, and we don't necessarily see the same level of investment from a younger generation who are ready to backfill those roles. And if our industry is growing, we're

going to need even more young people who are willing to enter this field and to continue and sustain our organizations. So we are investing. We are creating a program for our community members where they can receive a certification. They undertake eight weeks of training and receive a certification, and then they parlay that into a one-year, 2,000-hour paid apprenticeship. They're learning on the job, they're getting paid, and they're building a sustainable career for themselves and for the community. We do that enough times, you really build a good workforce.

Kim Harber

What I'm going to do is a little bit of a transition here because if you want to know the true form of diversity, my definition of that is knowing that we're all going to have differences. How do we value those differences? That is the truest form of diversity. Not the divisive items you hear about politically.

But each of us come with our own ideas. And we're there to share them. Mikhail is an example - he went back to Chandler, saw the opportunity to build something. On the other hand, as you look at Smart Rural Communities, Smart Tribal Communities, Smart Connected Communities, then you have people like Morgan who also understand that for those things to happen she may not have to go back to declare her heritage but is able to support that from other places. Talk to us about that in the policy arena and what your goals and objectives are for the Tribal nation you serve, and more importantly for the country in which you live.

Morgan Gray I have a Master's in Public Administration from the Bush School of Government and Public Service at Texas A&M. President Bush used to say that public service is a noble calling and that we need men and women of character to serve their communities, their states, and their countries. And I truly believe that with every fiber of my being. When I finished my master's degree, I moved back to the Chickasaw Nation. I grew up in San Antonio, Texas, but I had every desire to move to Chickasaw territory to serve my Tribe in whatever capacity I was called to do. I had absolutely no background in telecommunications whatsoever when I joined the Chickasaw Nation, and the job that they had for me was this job. It was an opportunity to be a part of something from the

very beginning and to make an incredible impact in the lives of our Chickasaw people. And it's been so very rewarding.

I lived in Ada, which is in South Central Oklahoma, where the Chickasaw Nation is headquartered, for about a year and a half. If you picture where Texas and Oklahoma meet, the Chickasaw Nation Tribal territory extends just above the Red River in a small area called Thackerville, up to just south of Oklahoma City. Our Tribal territory encompasses about 13.5 counties. During that year I lived in Ada, I had the opportunity to travel to most of our local communities and speak with stakeholders and community members about the issues that they face on a daily basis, and I'm sure many of you can relate to the things we talked about. I had the opportunity to actually speak to Tribal members and community members about how they're frustrated that they can't get a service provider to come and connect their home.

The experiences that I had there were invaluable. And what I learned especially doing policy work for the Nation, was that we needed to have a voice in this space where the policy is made, and that's in Washington D.C. And I've been very, very fortunate to have the support of my entire Tribe, specifically, my two supervisors, who have known from Day One that my dream was to go to law school and to represent the Chickasaw Nation in that capacity.

And so, I've had that opportunity to continue my job from afar, thanks to broadband. And to further my education so that I can serve the Chickasaw Nation in a greater capacity one day.

Kim Harber

This is a key point here. Many of you in the audience are already part of the Smart Rural Community initiative. There's a demand. There's a situation. Now we're being charged, because we're listening to the Gila River example, we're listening to the Chickasaw Nation and those challenges. And we're in the role of leading our communities. We're not that much different. There is heritage that is born within those communities. You are part of that heritage.

And so I ask our panelists, what does it mean to be a Smart Tribal Community?

Mikhail Sundust To answer the question briefly it means investing in our people, investing in our future, but I feel it needs a fuller answer. I have to back up a little bit. For our audience, please raise your hand if digital literacy or digital inclusion is something that you've

heard of recently, and you're thinking, "Oh, we need this in our community, right?" Pretty much everyone raised their hand.

Now raise your hand if you've got digital literacy all figured out. And you know how to do it and you know that you're right.

I can't raise my hand either.

We are learning; this is something that we are in the very early stages of producing within our community. I was very fortunate when I left college. I graduated from the University of Arizona and my first job out of college was working for the community as a news reporter for the local newspaper. We had a staff of three and we did all the all the photos, all the writing, all the layout, and deliveries. Delivery day was fun because you had to listen to the radio and drive around the community.

"It's a noble calling to serve your people. They are the heroes. We are not the heroes as the service providers, right? We're the conduit, the means by which our heroes achieve their goals."

But what was my favorite part about that job? I got to know the community members. I went out for every story that I reported. I was out in the community learning about the people that lived there learning about the history and the heritage of our people, but also the current day realities. What are the challenges they

face? What are the questions they have about our government and how can we better serve them?

As Morgan said, it's a noble calling to serve your people. They are the heroes. We are not the heroes as the service providers, right? We're the conduit, the means by which our heroes achieve their goals.

So, when I think about a Smart Rural Community, or a Smart Tribal Community, I think about all of the investment that we have put into the future of our people. They're taking the time to educate our young people, and they're taking the time to make our elders feel valued.

One of the programs that we are working on through our digital literacy program is bridging those two communities of young people and the elders. The culture, the traditions, the stories of the history of our people. The pandemic wreaked havoc on our elders nationwide, of course. But in in Indian country it was a severe loss of our language.

We lost our traditions and some of our stories. It was a tragedy on multiple fronts and so we want to make sure that we use this opportunity to preserve our heritage using broadband tools, using modern technologies, whether it's language preservation or traditional ecological knowledge or anything like that. That's how we're investing in our community, not just from an infrastructure standpoint.

If we're building all this infrastructure and we're putting all this money towards the technical side of things, what happens when we get it all built out? How do we make sure that the people know how to use it to their best benefit? Earlier when I mentioned digital literacy for the youth, for entrepreneurs, a lot of small business owners in the community can use these new digital tools. Now that they're available they don't have to go into Phoenix or Tucson or some other metropolitan area. Job seekers, the elders - this is what we're doing to invest in our community as a Smart Tribal Community.

Morgan Gray Having this robust fiber network has meant a lot to our community and I know that we've heard a lot about the pandemic over the course of the last day and a half and the impact that that's had on our communities. And I just want to share the impact that it's had on our community, as well.

> The Chickasaw Nation is one of the largest employers in the state of Oklahoma. We have more than 14,000 employees and over the course of the pandemic, the Chickasaw Nation did not let go of a single one, and that's because we were able to transition to telecommuting 100%. It was an incredible thing and something that we were able to do for our community members. Beyond that, the Chickasaw Nation has its own hospital, in addition to a number of health care facilities. We're currently building a new hospital. And we were able to provide lifesaving care to so many of our Chickasaw citizens and non-Chickasaw members as well who were infected with COVID.

"We have more than 14,000 employees and over the course of the pandemic, the Chickasaw Nation did not let go of a single one, and that's because we were able to transition to telecommuting 100%."

Those are so many things that we are incredibly proud of, and the Chickasaw Nation has a number of programs that we provide to our citizens. A lot of them helped us to remain connected during the pandemic and we were able to engage in a lot of cultural celebrations virtually, which was something that was incredibly important to our community members.

It gives me hope and it gives everybody in our community hope and it's just an incredibly worthwhile thing that we get to be a part of.

Kim Harber

I'm offering the audience the challenge: are our communities that much different than what these two youth leaders are undertaking? You are providers and now the transformation into leading your community through these time with the technology that is going to bridge your community's heritage. You know it better than anybody else with that hope for the future

Mikhail Sundust I'd like to just share a few stories about what we've done. These are the things that inspire me. We have been offering digital literacy training for about five months. We've held seven and a half trainings and we've got two more in the works for later this month. Our primary clientele are our elders, but we are developing programs for our youth and job seekers as well.

We had an elder who is an expert seamstress. She makes dresses, and she is really good. We saw pictures of her work, but when the pandemic hit, she told us that she really struggled to sell her work because she had to stay isolated. She was quarantined; you remember all the shelter in place orders.

And she came to us said, "I lost my business, but I'd really like to re-launch it. But I want to do it in a way that can use this thing," and she's pointing to her laptop. "I want to use this to help me grow my business."

She was pretty good at the computer, but she didn't know how to do the business side of things. And we gave her some tools to start so that she can sustain her business as a seamstress living on the reservation.

There was another instance, an elderly gentleman who was really good at gardening, but who said that it was hard to get people to come to him. And he explained, "What I'd really like to do is record some videos and post them online and teach people how to garden using videos."

So, we set up his computer, showed him how to record using a simple webcam and some free online tools for recording and showed him how to create his videos and it's an ongoing project, but we can help him build his skill.

If we can do this for a lot more people and help them gain access to these broadband resources, we can really empower the community to try new things and to expand and to grow its economic development.

Kim Harber

Establishing economic sustainability in our communities is no different in the communities we serve.

Morgan Gray In my very short amount of time in this industry, almost four years, I have seen a lot of challenges that service providers and stakeholders in this industry face. The pandemic exacerbated those challenges significantly, and sometimes it feels like when we take one giant leap forward, we take two steps back and that can be incredibly discouraging and frustrating.

> We don't necessarily have a ton of youth who are ready to jump into this industry and fill the roles of those who are getting ready to retire. So, I want to just stress the importance of mentorship.

I've been very grateful to have amazing mentors in my life, particularly those who are very experienced in the telecom industry. And I feel that's really important. And again, I want to thank all of you for sharing your stories, tying them back to the challenges that we all face. Like I said, it can be incredibly discouraging sometimes when you are trying your best to overcome hurdles and again it just doesn't work out the way that you think it might, but to hear all of your stories and all of your resilience, it's incredibly inspiring to me.

And I know that as we've had the opportunity to share what goes on in our Tribal communities, I feel like there is so much more that unites us than divides us, so many similarities between what we've experienced and what I've heard from all of you all.

And I've truly just never been more hopeful for the future.

Kim Harber

And on that note, it's a perfect segue. Because I advocate every day when I get up in the morning . And I know many of you do this. Take pride in it within your communities. Because truly great leaders create leader, not followers.

What you're seeing here is representative of our future, our ability to change, our ability to change before we have to in order to maintain that legacy.

I hope you feel like I do that our company and our future is bright with the leadership we've got coming aboard.

Thank you

ABOUT THE CHICKASAW NATION

The Chickasaw Nation's original homelands encompassed parts of present-day North Mississippi, Northwest Alabama, West Tennessee, and Southwest Kentucky. Initial contact with Europeans occurred in December 1540, and subsequent expansion of the United States reduced Chickasaw ancestral domain to only the northern part of Mississippi. The Indian Removal Act of 1830 resulted in the removal of the Chickasaw Nation to Indian Territory in present-day Oklahoma.. This Act precipitated deep-reaching adverse impacts for Chickasaws and other Southeastern Indians who were removed from their homelands. When Oklahoma entered the union in 1907, members of the Chickasaw Nation were granted U.S. citizenship. The Chickasaw Nation treaty territory now encompasses 7,648 square miles of south-central Oklahoma and encompasses all or parts of 13.5 Oklahoma counties. While many of the Chickasaw Nation's more than 72,000 tribal members reside within Chickasaw territory, many more live throughout the United States and the world. Today the Chickasaw Nation is economically robust, culturally vibrant, and dedicated to fulfilling its mission of enhancing the overall quality of life of the Chickasaw people.

The Chickasaw Nation relies on a three-branch system of government consisting of the Office of the Governor, the Legislative Department, and the Judicial Department. The Chickasaw Nation encourages and supports infrastructure for strong business ventures and an advanced Tribal economy by maintaining a robust business portfolio. These ventures include gaming, manufacturing, healthcare, technology, media, tourism, hospitality, and telecommunications services. The Chickasaw Nation reinvests funds generated through its business ventures back into the community by providing a number of programs and services to Chickasaw citizens. For example, the Chickasaw Nation, through the Chickasaw Nation Medical Center (CNMC), provides healthcare services to both Chickasaw citizens and non-Chickasaw tribal members. Additionally, through its wholly-owned subsidiary Trace Fiber Networks, LLC, the Chickasaw Nation invested in the construction of a fiber optic network encompassing its tribal boundaries to bring reliable and affordable broadband to Chickasaw communities. Ventures such as these illustrate the Chickasaw Nation's commitment to self-sufficiency and self-determination.

Smart Tribal Community acknowledges the resources of the Chickasaw Nation from which this summary was drawn. For additional information, please visit https://www.chickasaw.net/

ABOUT THE GILA RIVER INDIAN COMMUNITY

The Gila River Indian Community is adjacent to the south side of the city of Phoenix, within the Phoenix Metropolitan Area in Pinal and Maricopa counties. The Reservation was established in 1859 and the Gila River Indian Community formally established by Congress in 1939. The reservation has a land area of approximately 584 square miles and is home to approximately 11,250 people. The community is also home for members of both the Akimel O'odham (Pima) and the Pee-Posh (Maricopa) tribes.

Initial European contact introduced new crops and animals to the Gila River, while missionaries converted many members to the Roman Catholic faith. Members largely adapted new plants and animals to their use. In 1846, southern Arizona fell under the influence of the United States following the Mexican-American War. Between 1849-1851, approximately 60,000 people responding to the California Gold Rush traversed Gila River territory. In 1854, the Gadsden Purchase officially made southern Arizona part of a United States Territory.

In 1870s and 1880s, long-standing farming in Gila River was crippled by construction of upstream diversion structures and dams by non-Native farmers. Local farming was largely wiped out and historic reliance on crops including wheat, corn, beans, pumpkins, watermelon, squash, and peas was replaced by canned and processed food allowances provided by the U.S. government. While these distributions arrested the threat of mass famine, the change in diet precipitated chronic health conditions that continue to affect the Tribal population. The impact on sustainable farming bore heavy economic impacts, as well. Completion of the Coolidge Dam on the upper Gila River in 1930, however, provided new irrigation and restored a portion of the Tribe's farming practices, while the advent of the automobile enabled work off the reservation. The introduction of small businesses alongside schools, healthcare centers, and new housing after World Wars I and II was the beginning of positive trends for the Gila River Indian Community, which is currently planning a monumental irrigation project to deliver water to 146,300 acres.

Smart Tribal Community acknowledges the resources of the Gila River Indian Community, from which this summary was drawn. For additional information please visit https://www.gilariver.org.

ABOUT THE PANELISTS

MORGAN GRAY, MPA, J.D. Candidate May 2024

Morgan Gray is a proud Chickasaw citizen, and a 2L at George Washington University Law School in Washington, DC. She graduated from Texas A&M University with Bachelor's Degrees in Political Science and English in 2016, and two years later completed her Masters of Public Administration from Texas A&M's Bush School of Government and Public Service. Ms. Gray has worked for the Chickasaw Nation as a Business Analyst since 2018 and has since focused her professional efforts on telecommunications and broadband policy. Since then, she has developed a passion for ensuring equal access to broadband in rural communities. Ms. Gray hopes to focus her law school studies on Federal Indian law, telecommunications law, and constitutional law more broadly. She recently joined the Federal Communications Law Journal at her law school and hopes to continue to have the opportunity to serve the Chickasaw Nation in the future.

KIM HARBER, Senior Vice President of Madison Communications, Inc.

Kim Harber joined Madison Communications in May 2009. Mr. Harber is a 44-year veteran of the telecommunications industry, starting his career with GTE in 1978. He held positions of increasing responsibility in technical, engineering, customer and network operations and executive leadership throughout his career with Verizon Communications (formerly GTE Corporation). In December 2000, with the acquisition of 110 Verizon telephone exchanges throughout Illinois, Harber joined Citizens Communication as State Vice-President/General Manager to oversee all aspects and expansion of the newly formed company. Until his retirement in 2008, he oversaw the acquisition of seven Independent RLEC's, consisting of 28 additional rural Illinois telephone exchanges expanding broadband and the operational presence of the Company as his last assignment. Before joining Madison Communications, Harber was State Vice- President/General Manager serving 138 communities throughout Illinois. Mr. Harber is an appointed member of the NTCA Government Affairs committee developing broadband related legislation addressing the rural digital divide with Congressional leaders, USDA, RUS and the FCC. He serves on the Advisory Council of the nationally recognized Smart Rural Community initiative.

MIKHAIL SUNDUST, Executive Director, Digital Connect Initiative

Mikhail Sundust joined the Digital Connect Initiative in January 2022. As an enrolled member of the Gila River Indian Community, he is thrilled at the opportunity to serve the people and place he feels most connected to, and he enjoys learning about his Akimel O'otham and Pee Posh heritages. Mr. Sundust holds a bachelor's degree from the University of Arizona and a Master of Public Administration (MPA) from Arizona State University. Previously, he worked for the Gila River Indian News (GRIN) for more than five years.

About NTCA-The Rural Broadband Association: NTCA-The Rural Broadband Association represents approximately 850 independent, community-based telecommunications companies that lead innovation in rural America. NTCA advocates on behalf of its members; provides training and development; produces publications and industry events; and offers an array of employee benefit programs. In an era of exploding technology, deregulation, and marketplace competition, NTCA's members are leading the IP evolution for rural consumers, delivering technologies that make rural communities vibrant places in which to live and do business. Because of their efforts, rural America is fertile ground for innovation in agriculture, economic development, education, health care, public safety, and other services. Visit us at www.ntca.org.

About NTCA Smart Communities:

The NTCA Smart Communities program includes Smart Rural CommunitySM, Smart Tribal CommunitySM, and Smart Connected CommunitySM. The initiative promotes rural broadband networks and applications to foster innovative agricultural, economic development, education, health care, other vital services. NTCA Smart Communities administers award, best practices, and educational programming. For more information, please visit www.smartruralcommunity.org.

About the Editor:

Joshua Seidemann is Vice President of Policy and Industry Innovation of NTCA—The Rural Broadband Association. He focuses on Federal regulatory issues as well as technology and economic factors affecting the rural telecom industry. Seidemann holds a B.A. degree in Economics and Speech/Drama and a law degree from Yeshiva University. He is admitted to practice in New Jersey, New York and the District of Columbia and is certified corporate counsel in the Commonwealth of Virginia.

Additional Smart Rural Community White Papers:

"Beyond Rural Walls: A Scholars' Conversation About Rural and Urban Spaces," Joshua Seidemann, Editor, NTCA–The Rural Broadband Association (2016).

Barboza, Roxanna, and Seidemann, Joshua, "Rural Imperatives in Broadband Adoption and Digital Inclusion," NTCA–The Rural Broadband Association (2021).

Schadelbauer, Rick, "Anticipating Economic Returns of Rural Telehealth," NTCA-The Rural Broadband Association (2017).

Schadelbauer, Rick, "Conquering the Challenges of Broadband Adoption," NTCA-The Rural Broadband Association (2014).

Seidemann, Joshua, "Beyond Rural Walls: Identifying Impacts and Interdependencies Among Rural and Urban Spaces," NTCA–The Rural Broadband Association (2015).

Seidemann, Joshua, "From Fiber to Field: The Role of Rural Broadband in Emerging Agricultural Technology," NTCA–The Rural Broadband Association (2021).

Seidemann, Joshua, "Rural Broadband and the Next Generation of American Jobs," NTCA-The Rural Broadband Association (2019).

"Steel Sharpens Steel: A Conversation About Regional Thinking for Rural America," Joshua Seidemann, Editor, NTCA–The Rural Broadband Association (2017).

