



# Fiber Forward

2024 EDITION 4

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to reach unserved areas. It is very convenient for state broadband offices to punt these locations to Starlink and claim they are served. My rule of thumb is that any home that is served with commercial power should be able to get fiber. We should not quit on rural America because it's hard and inconvenient as these are the Americans that need robust broadband infrastructure the most.

We have been extremely fortunate at the Fiber Broadband Association to have such a hard-working board and volunteer leadership team. Leading our board this year is Jimmy Todd, CEO Nextech. You might know Jimmy best from his "Easy Rider" entrance, in full motorcycle leathers on the "Big Dawg" chopper at our annual conference in July. While Jimmy can look intimidating in his cowboy boots, porkchop sideburns, towering over you at 6' 3," he is a gentle giant and so highly engaged in the organization.

In addition to chairing the board, Jimmy is the co-chair of our precision agriculture committee, and he is passionate about rural broadband, farming, and economic development. Jimmy has traveled around the world with me this past year, meeting with global broadband leaders, in an effort to advance our industry and develop best practices. "Diagramming FBA's Path with Jimmy Todd" provides key insights into the departing chair's work ethic along with

key issues that will affect the future of service providers. His continuing efforts in raising awareness and building information on precision agriculture will have an impact for years to come.

One of our ISP members that I am most impressed with is Ritter. At our Little Rock Fiber Connect Workshop in April, Victor Esposito (CTO), Raynessia Chandler (Support Services), Katie Hall (Construction Communications), Josh Worley (OSP Planning), and Tony McKay (Field Operations), walked our audience through their detailed deployment and customer acquisition process and it was evident on why they delight their customers given their seamless internal and external communication process. I hope you enjoy the article, "Ritter's RightFiber at the Right Time."

I am so proud of *Fiber Forward* magazine as our goal is to provide world-class editorial content, that will enable you to keep a tight pulse on our industry and future. This issue is our best yet. 

Sincerely,




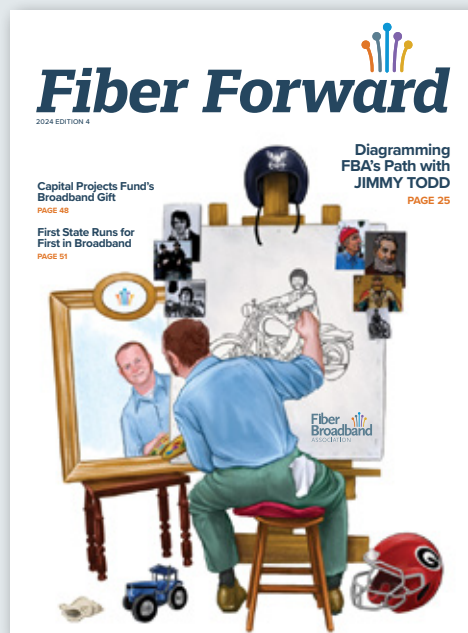
## About the Cover

The internal debate about which Norman Rockwell cover to pay homage to with this issue was as fierce as FBA's outgoing chairman Jimmy Todd's strong impression at Fiber Connect 2024. By vote, we settled on Rockwell's Triple Self Portrait that appeared on *The Saturday Evening Post's* February 13, 1960, cover. It also appeared on the Norman Rockwell Anniversary Issue in May/June 1994.

The original illustration by Rockwell includes self-portraits of Rembrandt, Vincent van Gogh, Albrecht Dürer, and Picasso, all masters of introspection, pinned to the canvas. For our cover, we decided to include images that lean into the glorious mutton chops Jimmy sported for most of the year so we have included images of Elvis and The Blues Brothers; a few folks we know our chairman admires, including Jacques Cousteau, whose pipe is a nod to Rockwell's in the original, Rocky Balboa, who could go in the mutton chops category as well, and King Arthur.

Because we are who we are, we included Alexander Graham Bell, inventor of the telephone and Edward Butler who invented the Butler Petrol Cycle in 1884 – the world's first motorcycle. The tractor at our chairman's left foot celebrates his work on the FCC's Precision Agriculture Task Force and FBA's own committee development. At Jimmy's right foot is the helmet of his alma mater, the University of Georgia and on the motorcycle helpful perched on top of the easel is a Navy emblem, celebrating his service in the U.S. Navy.

This cover was created by Raleigh-based Illustrator Alice Holleman ([www.AliceHolleman.com](http://www.AliceHolleman.com)). 







# ***Diagramming FBA's Path with Jimmy Todd***

**By Doug Mohney**

Fiber Broadband Association (FBA) Chairman of the Board Jimmy Todd is not one to stand on formality, sitting down with *Fiber Forward* on a Microsoft Teams call wearing a Georgia Bulldogs baseball cap and a Five Finger Death Punch concert T-shirt, with his signature mutton chops currently shaved off as a gift to his wife, "Miss Shirley."

His motorcycle entrance at Fiber Connect 2024 is the stuff of legends, but there's deep substance and thought behind the colorful presentation. Todd has been CEO and General Manager of Nex-Tech for over a decade, and currently serves on the boards of the Kansas Fiber Network, NRTC, Nex-Tech Wireless and WTA, as well as being an FBA board member since December 2021.

In addition to being elected FBA Chair, last year he also co-founded FBA's Precision Agriculture Committee. Also on his resume are stints with the U.S. Navy and the Oregon Army National Guard/US Army, an MBA from the University of Portland, and a four-year run on the FCC's Precision Agriculture Task Force. A good part of his focus over the past three years has, of course, been on FBA and its growing importance to society at large.

"I'm extremely pleased with where FBA is and where we've come in recent years," said Todd. "The growth and the influence of the organization has been exponential. It's been exciting to be a part of it, because fiber is something that, quite honestly, everybody needs to have. It touches every aspect of our lives, whether it's education, health care, commerce, and, of course, what's near and dear to my heart: the potential for Precision Ag[riculture] and rural connectivity."

COVID underlined how important fiber broadband is for households and society, said Todd, delivering the ability for remote work, education at home while schools were closed, and telemedicine for urban and rural communities alike. At the same time, FBA has stepped up as the worth and versatility of fiber has continued to grow.



“You look at the initiatives [President and CEO] Gary [Bolton] has recently started in the past couple of years, such as our focus on workforce education,” Todd stated. “The OptIC Path™ curriculum is reaching more states every month. Our advocacy efforts and presence on Capitol Hill thanks to FBA Vice President of Public Policy Marissa Mitrovich has helped us achieve in the past two years. Those are things that, quite honestly, have been amazing results in a short amount of time and being able to be involved and be a part of that has been a wonderful experience.”

Todd expects FBA to continue to educate people on the value that fiber brings to communities and the nation as BEAD funding advances and networks start to come online, with the medium’s strengths clear to him since he has worked with just about every other broadband technology over the years.

“For my company [Nex-Tech] and many others, we’ve been building fiber with every flavor of grant, Universal Service Fund support, you name it,” he said. “BEAD is an unparalleled amount of funding to get broadband to every American. I love the fact that when it came out, there was a fiber preference. I’ve been in the industry for a long time, I’ve done every flavor of internet connectivity, from dial-up on copper to hybrid fiber coax to fixed wireless to satellite. When comes down to it, there is no comparison to the quality of a fiber connection and the operational cost of supporting a fiber network is significantly lower than any of the other technologies and the ability to scale the network.”

Todd’s company Nex-Tech won an American Recovery and Reinvestment Act (ARRA) loan/grant opportunity during the Obama Administration to build out a mixture of fiber and fixed wireless connectivity to farms and communities in northwest

Kansas, using wireless to reach areas beyond the reach of the core fiber runs. Discussions of opening BEAD to “alternative technologies” are concerning to Todd, because he’s seen how they fail to deliver when compared to fiber in the real world.

“We built out a lot of area with fiber, but there were locations outside of that where we used fixed wireless,” said Todd. “At the time, the fixed wireless equipment we used was state-of-the-art. Within five years, it was already falling behind what it could manage and scale towards. In less than 10 years, that equipment was considered substandard. We did the best we could to get those folks connected, but it shows the limitations of wireless and the power of fiber for the long run.

“I’ve been a huge advocate that our rural areas need fiber just as our urban areas do,” Todd continued. “At the end of the day, we need to get fiber to every home, every house that’s got electricity, we can with fiber. That’s what we need across America. I’m concerned that we might see a lot of federal funding go towards these alternative methodologies and technologies to get people connected. We’re going to have to continue working with decisionmakers and Congress to ensure that fiber continues to be the preference.”

### Connecting the Farm

Precision agriculture is one of Jimmy’s premier interests, stemming from his experience in Kansas connecting his neighbors and their farms that led to a four-year stint working with the Federal Communications Commission’s Precision Agriculture task force on the deployment working group. Todd expects the FBA’s Precision Ag committee to publish its first white paper on the topic sometime next year, using input from



Arriving to his keynote on a motorcycle, FBA Chairman Jimmy Todd woke up the morning attendees at Fiber Connect 2024.  
Source: Doug Mohney.



# THE MOTORCYCLE RIDE TO NASHVILLE



Getting a suitable chopper, found and then moved from Kansas to Tennessee and into the Gaylord for Fiber Connect was a non-trivial logistical challenge, said Todd. **Source:** Doug Mohnney.

The seeds for Jimmy's engine-growling entrance into Fiber Connect 2024 were planted the year before in Orlando.

"If you remember JJ's [Joseph Jones] Chairman's presentation at Fiber Connect [2023], it was just amazing," said Todd. "He set the bar in the cosmos. It was so good, I wanted to stand up, salute the flag, and yell 'Let's go build fiber!' When I became Chairman in January [2024], Gary [Bolton] and I both agreed that JJ had an out-of-the-park presentation. Gary said, 'I want you to flip the script a little bit. Everyone knows you ride a motorcycle.' As soon as he mentioned motorcycle, I said, 'I'm in, that sounds like fun.'"

Bolton's request to ride into Fiber Connect 2024 provided Todd, an avid biker, with the opportunity to obtain his dream chopper, something in Georgia Bulldog red and black colors with a lot of chrome. After securing the all-important blessing of Miss Shirley, Jimmy found a suitable bike in South Florida that he procured and had shipped to his home in rural northwest Kansas.

But Todd's effort to conduct a 90-second ride in and out of the Gaylord ballrooms had only begun. He had to work through a packed travel schedule immediately before and after Fiber Connect and coordinate the logistics of positioning his new chopper in the city. "My company's strategic planning meeting was immediately before Fiber Connect and I wouldn't be able to ride the bike there and back," said Todd. "I rode the chopper

from Kansas to Nashville a couple of weeks before the event. It was 975 miles one way, 12 hours the first day, 9 the second. I will tell you what, riding a chopper cross country will kick your a--."

Storing the vehicle in Nashville at a friend's place was easy, but getting the Gaylord to give permission to drive it around inside was another story, requiring Jimmy to jump through "ridiculous hoops" and required putting the hotel on his personal motorcycle insurance policy for the day. He also had to wrestle with a dead battery the morning of his ride, jump starting it at 6 AM, riding it inside to a staging area, and putting the battery on a charger, hoping that it would be good to go by the time he had to be on stage.

"For an hour and a half, I'm like, 'Please charge. Please charge,' said Todd. Right before eight o'clock, I got there and the battery tender was nice and green, that's a good sign. At the introduction, they start playing, 'Born to be Wild.' I unhook it from the battery tender, and it starts up. I'm like, 'Yeah,' so I pull out right up front and get off the bike, do the presentation.

"As I'm walking down to the bike, I'm praying, 'Please start again, please start again.' I push the start button and it's trying to get that extra push to turn the motor over and it kicks over. I gas the engine, pop it into gear, and I took off. Thank goodness, Lord, you didn't make me have to push this thing off after this cool intro and fun presentation. We were able to get it done and it was a lot of fun to do."

rural service providers, farmers, ranchers, and academia that have been recruited to join the committee.

"There's going to be a last acre network that is dependent upon fiber in the last mile to really make it work," said Todd. "In the early days of precision ag, satellite was the only option because you didn't have cellular coverage in rural areas. As the amount of data continues to grow, you're going to see different applications that require a ton of bandwidth. We know you're not going to get fiber to a drone or to a sensor in a field, but fiber facilitates that future."

Larger farms and ranches will rely on wireless connectivity for the last acre and may have to build towers to extend wireless further and farther across farmland and ranches, with fiber to the towers and a private LTE or 5G network providing connectivity beyond the fiber to vehicles, sensors, and outlying infrastructure. Data collected from the fields and ranch land that is currently processed on a batch basis will increasingly be analyzed in real time, enabling on-the-fly monitoring of crops and applying the precise amount of water, fertilizer, and other crop treatments to optimize yields.

"Dr. Hendrik Hamann, Chief Science Officer of IBM Research, one of the speakers at the Regional Fiber Connect event in Des Moines, Iowa, said 90% of all the data that has been generated from agriculture has been done in the past two years," Todd said. "We've been farming for centuries and in the past two years the amount of data that has been collected from the farm, from the ranch, has blown up and will continue growing as the technology increases."

Todd sees a future where edge computing will join last-mile fiber connectivity for faster and more efficient farm management, providing better resource management of the soil and crop inputs as the United States continues to feed its citizens and a good portion of the world.


### Looking to the Future

Rural operators such as Nex-Tech, as well as tribal governments, have expressed concerns about long-term sustainable funding for existing and new networks in their higher-cost areas, a topic of significance for the departing FBA Chair.

"Outside of FBA, I've been working on [Universal Service Fund] contribution and distribution reform for seven and a half years," said Todd. "Sustainability, in the operational sense, I do think is important because it takes people and resources to maintain and operate networks. It's scary, because when you start talking about opening up USF for retooling, people get nervous about what that looks like in the future, especially those of us who have been USF recipients for decades. But at the end of the day, it's already supporting broadband networks."

Todd speculated that USF growth is likely and will be necessary for ongoing support in high-cost rural areas, but it would be hard to speculate what a revised program would look like since the fund was originally designed to support telephone networks with voice at the core as a part of the 1996 Telecommunications Act, not high-speed broadband.

"When you look at a telephone network and a broadband network on paper, it looks [very] similar, lines and dots and boxes of whatever," said Todd. "But those lines used to be toll routes coming into an exchange and the phone line going from the CO to an end user. The boxes in the CO are now routers and data switches, not phone voice switches. Toll lines are now middle mile backhaul to a major metropolitan area. You've got connectivity that continues to grow along that middle mile as well as that access network that reaches all the end users. The amount of change that takes place because of the growth of data [on broadband networks] is significantly different than what we ever saw in the telephone world. To support this, the USF distribution needs to be revamped to ensure that it encompasses some of those elements."

As he leaves the Chair, Jimmy sees fiber's future prospects as bright. "We're in an exciting time," said Todd. "We only see continued advancements. Gary has talked several times about quantum networks, quantum technology, fiber optic sensing capabilities, applications beyond communications that fiber networks can facilitate. These are exciting future opportunities. Once we get everybody connected across the U.S., FBA is going to be in a unique position to help bring awareness to these new technologies, as they continue to evolve and become more realistic, and help educate and spread awareness of the future of fiber well beyond connectivity." 

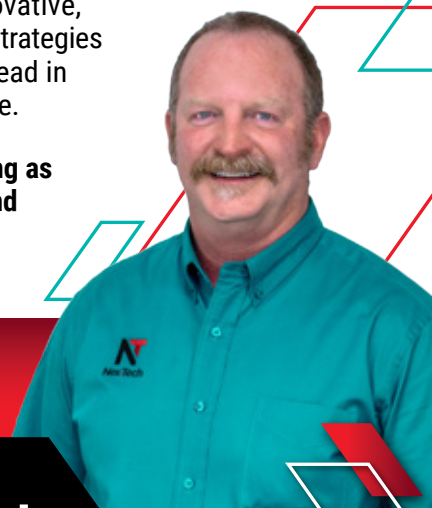
## LEADING THE WAY:

## Helping Broadband Providers Outpace the Competition

We're not just evolving—we're shaping the future of our industry. Nex-Tech Creative is a catalyst for broadband providers, delivering innovative, growth-driven marketing strategies that propel our clients ahead in the competitive landscape.

**Thanks, Jimmy, for serving as a leader in the industry and driving our team to do the same for our clients.**

**Jimmy Todd**  
CEO & General Manager



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