



inbuilding

WIRELESS & DIGITAL SOLUTIONS FOR SMART BUILDINGS

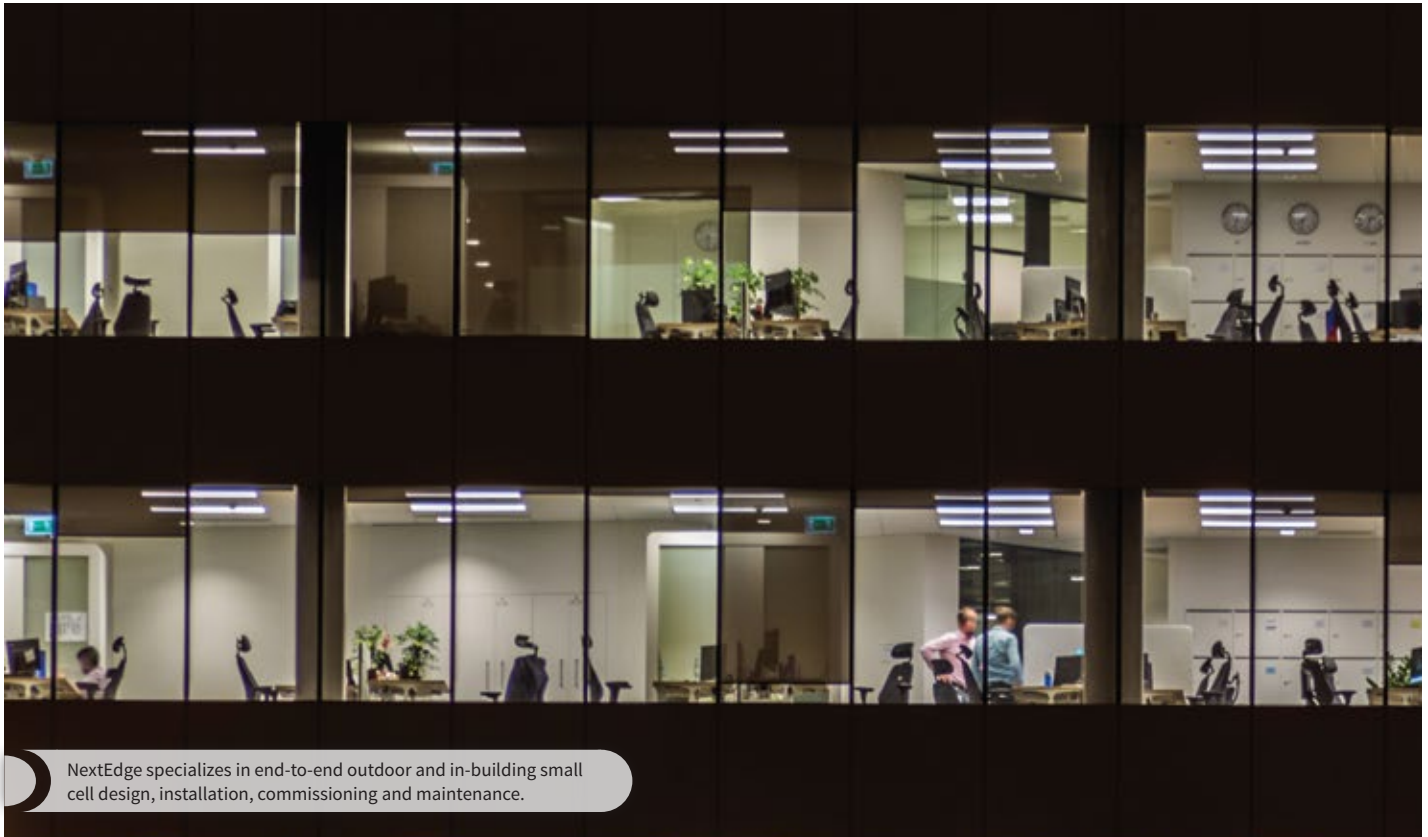
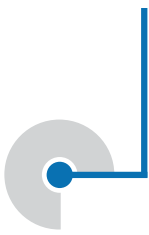
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NEXT GENERATION

NextEdge Networks and Modus merge to become an inbuilding powerhouse. **34**

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NextEdge specializes in end-to-end outdoor and in-building small cell design, installation, commissioning and maintenance.

NEXT GENERATION

NextEdge Networks and Modus merge to become a powerhouse in small cell deployment and inbuilding design. **By Janice Hoppe-Spiers**

NextEdge Networks and Modus joined forces last year to become a turnkey provider of services and infrastructure solutions to enable the deployment of the next generation of wireless infrastructure. The combined company is now recognized as an expert in small cell and DAS deployments, having jointly designed, permitted and executed more than 4,000 node deployments across more than 40 states.

"The rapid growth of data usage is causing increasing demands on our wireless infrastructure and

wireless providers, which require innovative solutions aligning the interests of all stakeholders," NextEdge Networks CEO Doug Wiest notes. "Our combined capabilities, as well as our experience and success in the most difficult jurisdictions, allow us to partner with wireless carriers, municipalities and building owners and managers to create long-term alignment to address the impending need of network densification."

NextEdge Networks specializes in end-to-end outdoor and in-building small cell design, instal-

lation, commissioning and maintenance. The company's main area of focus today is on improving wireless coverage in buildings.

Modus has been a leader in wireless site acquisition, construction and turnkey deployments,

NextEdge Networks/Modus

www.nextedenetworks.com

www.modus-corp.com

Headquarters: San Francisco

Employees: 80

Specialty: Turnkey small cell services and infrastructure solutions

Ryan Crowley, co-founder of Modus:

"Fast-forward 18 years, we are further away from being done than we have ever been."

completing extensive work on behalf of all the major wireless carriers as their needs have evolved. The company maintains a full suite of services, including self-performance of construction and last-mile fiber provisioning, allowing for control and accountability of every step of the deployment process.

The founders of Modus said, “The combination of Modus with NextEdge Networks, along with the financial backing from Titan Grove, is a natural evolution of the rapid growth of Modus.

“Our combined capabilities and access to capital will allow us to expand our breadth and reach to further support our customers’ expansion plans.”

RELIABLE CONNECTIVITY

NextEdge Networks sees inbuilding as its future. “We believe about 5 percent of buildings have sufficient coverage and that the demand for wireless coverage is increasing, but carriers don’t have the capital to resolve the problems,” Wiest says. “We recognize where the business is going and that building owners are now taking on both the headache and the cost of creating that wireless solution for their tenants.”

Building owners and managers are faced with the need to invest in increased connectivity to meet the needs of their tenants. NextEdge Networks relieves building owners and managers of the complex and time-consuming process of establishing a wireless utility.

“We are going through a paradigm shift,” Wiest explains. “For 30 years, when a wireless carrier knocked on the door it was a good

day for the building owner because they wanted to put a macro site on the rooftop and the revenue associated with that installation meant it was a good day.

“When they saw wireless, they saw money. Now the building owner has to recognize the wireless carrier is not there to bring revenue and pay to solve the problem. The wireless carrier won’t contribute like they have in the past and that is a paradigm shift building owners are beginning to under-

stand, embrace and realize they have to solve the problem because the carriers will not.”

Education is key to solving coverage issues in buildings. “The job of the building owner and manager is to keep tenants happy,” Wiest notes. “The best thing is to have tenants complain to the point where they are going to leave because nothing gets attention quicker than tenant churn. Having that happen will create a snowball effect because the more building owners solve

Modus is a leader in wireless site acquisition, construction and turnkey deployments.





NextEdge Networks wants to become more well known on the building side of the business, while Modus focuses on services.

for wireless coverage, the more others will have to do it to compete for the tenants they have.”

NextEdge Networks is able to secure real estate rights for no money going forward as a benefit, which Wiest says is a big and necessary shift because one of the barriers to the solution is the high cost.

“If you have to pay for access to the facility as well as the equipment, the carriers won’t pay and the model doesn’t work,” he adds. “We have been effective in securing real estate as a solution for no rent and have done 1,500 like that. We hope that grows because it is necessary for the future.”

FLEXIBLE SOLUTIONS

NextEdge Networks focuses on providing future-proof solutions for building owners that can grow with their needs and their tenants’ demands. The company has the financial flexibility and access to capital that its competitors may not have to meet those needs, Wiest says. “We create custom solutions that fit the nuances of your unique needs, and can scale from local projects to national programs,” he adds.

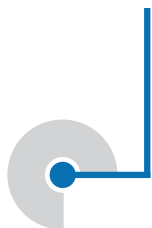
Although a majority of NextEdge Networks’ clients are located west of the Mississippi River, the company has operations throughout the country. The company is

working on commercial buildings, high-end high-rises and buildings in the hospitality industry, but universities and healthcare are the two industries that Wiest says also need help.

In some cases, NextEdge Networks is acting as a neutral host. “Let’s say, for example, a cell phone company gets a complaint from an enterprise customer who has a lot of employees on a plan with one carrier,” Wiest explains. “Maybe they are on the third floor of a building, so what will happen if they complain loud enough is that they will go somewhere else or the wireless carrier will put a small cell in that particular floor for their own network. If it’s a 12-story building, the rest of the floors are underserved and the building owner doesn’t solve the problem.”

With just one carrier’s connectivity issue being addressed, the building owner still runs the risk that

Western Utility Telecom, Inc. • offers exceptional engineering and manufacturing services to produce steel structures and related products for both the Utility and Telecommunication industries. We are a leader in Small Cell and DAS applications, developing a wide range of products to support unique jurisdictions. We partnered with Modus in developing small cell top mounts for existing light poles in San Francisco. With hundreds of these mounts deployed by Modus, it has set the standard for jurisdictional approval and standardization. The final design was deployed in 2015 to support the increase in coverage that was needed for Super Bowl 50.



employees will not be happy because they might not use that carrier on their own devices. "It doesn't work because there isn't a solution for all four carriers," Wiest explains. "Our intent is to provide a solution for the building owner where all tenants can use all the equipment they need to use and be satisfied with the coverage they are getting. We are acting as a neutral facilitator."

The challenge with becoming a neutral host is that some carriers are more financially capable, so systems need to be put in place so all four can participate. "The equipment that has been used to provide a neutral solution for the past 10 to 15 years is expensive,"

Wiest says. "Our focus is to lower that cost, which will be a differentiator for us and is really important for the ecosystem to work."

When building owners realize they have to fix the wireless coverage problem in their buildings, Wiest says most "choke on the cost" but the company is trying to lower it for them. "We are looking at everyone to find solutions," Wiest notes. "We are agnostic when it comes to equipment makers. We look at it from an infrastructure standpoint to find ways to future-proof their building so that whatever is put in today doesn't need to be redone in the future."

NextEdge Networks hopes that moving forward, more revenue

will go toward infrastructure instead of service activities, which is what Modus will help it accomplish. "Modus will continue to do the brunt of services work," Wiest says. "One of the reasons we came together as a joint company is because the way we see the world was in sync. We recognize the Modus folks have done a terrific job developing a nice company with great people. So far the merger of the two has been synergistic. We couldn't be happier and they feel the same. We are heading down a path that does both groups a lot of good."

The goal for NextEdge Networks is to become better known on the building side of the

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business. “We are well known amongst the carriers, but the building side has been problematic,” Wiest notes. “Building owners just haven’t collectively recognized this is a problem they have to deal with.”

SERIOUS ABOUT SERVICE

Ryan Crowley, Chad Abbott and Erik Corkery co-founded Modus in 2005 after working together for three years at Alaris. “We grew the Alaris office from five people to 50 in two years and were sold to Parsons, a global engineering firm,” Crowley remembers. “After a year, the three of us thought we could better service our clients on our own and started what is now Modus.”

Abbott has more than 15 years of experience in wireless telecommunications network deployment and in managing large-scale turnkey projects throughout the western United States. Corkery also has more than 15 years’ experience in the wireless telecommunications industry and has helped forge Modus into an innovative industry leader in wireless network development.

Crowley has been active for more than 20 years in real estate and land use entitlements in addition to his more than 15 years of experience in the wireless telecommunications industry. “Erik is an attorney, Chad has a masters in land use and my background is finance and real estate, and all three of us together is a good combination in our space,” Crowley says. “It just happened to work out really well that we all brought something different to the table. We started the company and the next thing we knew we had 80 people on staff.”

Modus has grown organically throughout the years and has done so strategically. “We are client-focused,” Crowley says. “You wouldn’t think you would have to say that, but you would be surprised how many people don’t remember that the client is No. 1. That really separates us from some of the other really big groups in our space. We are our clients’ advocates.”

Today, Modus employs 80 people who Crowley says are the best in the industry. “There are some great people out there and we are looking for them to join our team,” he adds. “It’s a small industry, so you know when the A players become available and we hire them. Great people attract other great people and we are trying to make sure we have the best team.”

IMMEDIATE NEEDS

Modus specializes in execution and speed to market. “Everything is important and needs to be done right now,” Crowley explains. “Some of the people we have let go over the years just didn’t get that. This isn’t a when-you-

Is your team covered?
The Benefits of an In-Building Wireless System

In a survey of Building Designers & Managers...

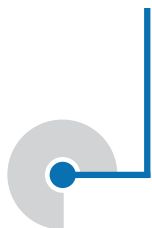
- 46%** Report better support in recruiting more talented individuals
- 77%** Report an increase in workforce productivity
- 39%** Report attracting more visitors

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Stay up-to-date on all things wireless

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Source: Benefits of an In-Building Wireless System, Cushman&Wakefield (2015)



feel-like-it business. It's now and the business doesn't wait for anyone."

The company decided to bring its construction services in-house, hiring Cal Bordonaro in 2015 as the director of construction. Modus' construction department includes 15 people and is currently deploying 1,700 nodes in the San Francisco Bay Area and 1,800 in Portland, Ore. "Everything is urgent and it comes down to experience and personnel," Bordonaro adds. "We are very fortunate right now that we have exceptional talent on our team."

The heat was on Modus two years ago when Verizon contracted it to ensure wireless coverage for its customers during the Super Bowl. More than 75,000 football fans descended on San Francisco for the game, which required numerous infrastructure upgrades to accommodate the increased data use. Verizon reported spending \$70 million on upgrades before the event.

Modus installed hundreds of small cells atop San Francisco's streetlights that tripled the network's capacity. "The design was still changing in November

and the first week of February is Super Bowl," Bordonaro remembers. "Our construction department started with this project and I surrounded myself with brilliance. Erik, Chad and Ryan are the smartest guys I know and they discuss everything before they move forward."

Verizon network infrastructure deployments included 16 new cell sites, the installation of 75 small cells, a patented antenna system to reach the lower stadium seats and 14 mobile cell sites, according to reports. The investment benefited customers living in and traveling to northern California well into the future by adding capacity for web browsing, video streaming and social media posts.

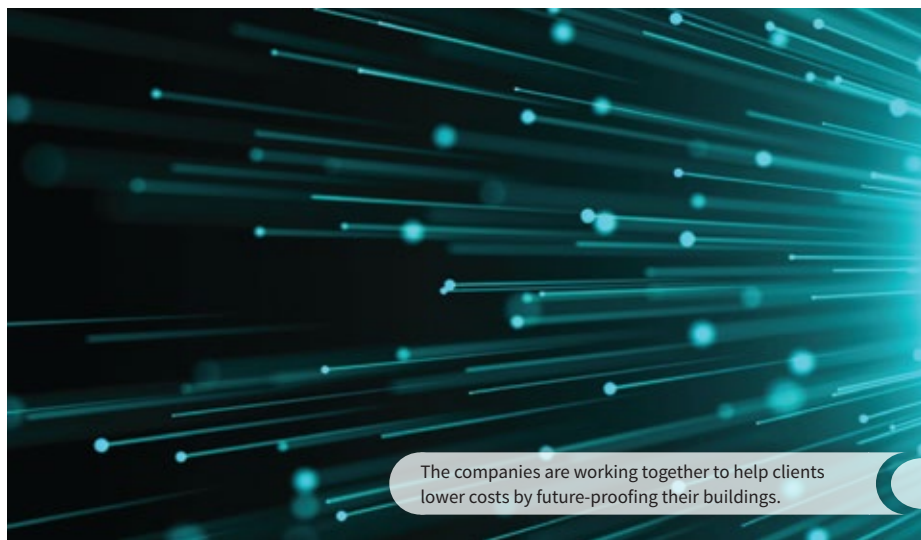
"With the Super Bowl job, there was no precedent so we had to make it work and that's very unique," Bordonaro says. "The Super Bowl was a unique experience because we had the opportunity to make decisions on the design and construction, and had the local knowledge to maintain the city's integrity and our reputation through every decision."

Crowley says performing the work in-house also allows the company to remain client-focused and maintain that sense of urgency on every project. "When it's not your people there's not the same results, in my opinion," he adds. "We love competing because our personnel exceed expectations. Performing jobs in-house is the best."

STRONG BACKING

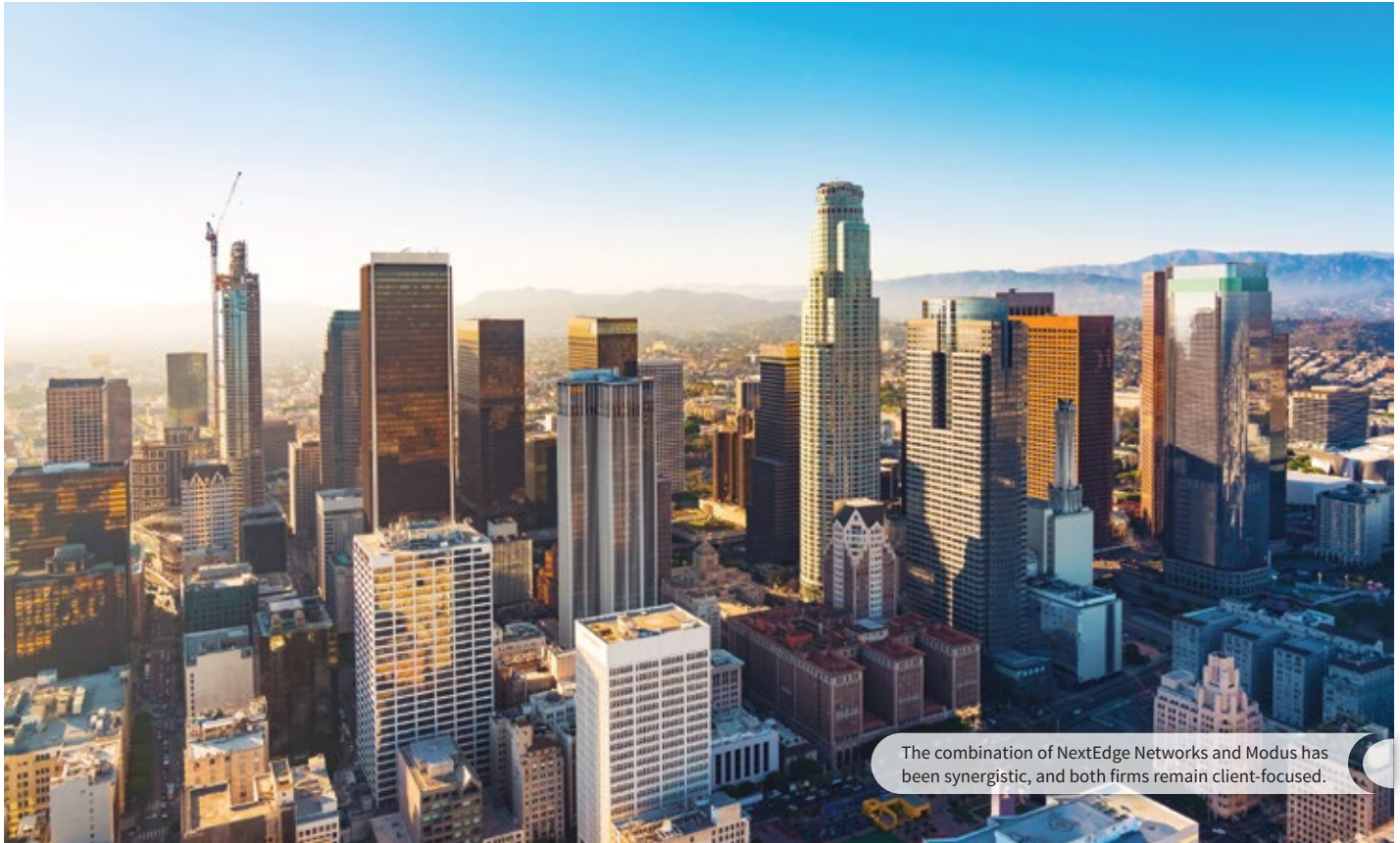
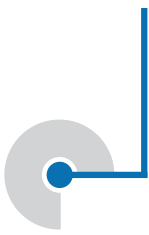
Abbott, Corkery and Crowley have always self-funded Modus, which they saw as a benefit but also recognized was a limitation. "We were our own worst enemy," Crowley says. "We wanted to do good work and stay within our means, and as we grew to compete against larger groups that had that kind of funding, it was irritating to lose a project because we couldn't manage the cash flow. We could not build out a \$50 million project three years ago because we did not have the ability to self-fund and we would not have taken on the risk, but now we can."

The merger with NextEdge Networks infused Modus with the capital it needs to take on the right projects in the future. "It doesn't



The companies are working together to help clients lower costs by future-proofing their buildings.

Fullerton • 2018 marks Fullerton's 20th Anniversary as one of the nation's leading Site Development firms that provide design, engineering solutions and construction services for the ever-evolving wireless industry. Fullerton has participated in over 35,000 projects nationwide, completing over 500 DAS/In-Building venues to date, and is proudly recognized as one of the leading design and project management companies nationwide today. We are trusted by companies including Boingo, American Tower, AT&T Mobility, Crown Castle, Sprint, T-Mobile, Verizon and more. Our engineers, project managers and designers consistently deliver bleeding-edge solutions and peerless client service. Fullerton is proud to partner with NextEdge Networks and considers them a key strategic partner as we embrace the emergence of 5G and a new dawn of both indoor and outdoor networks. We are an MBE/WBE company licensed in all 50 states, the District of Columbia and Puerto Rico.



The combination of NextEdge Networks and Modus has been synergistic, and both firms remain client-focused.

mean we are going hog wild,” Crowley notes. “We have passed on opportunities because they didn’t make sense. We want to do the right work with the right clients.”

Modus was not necessarily looking to sell and had been interviewing companies for the past two years to find the right partnership. “We said no to some big names that we were excited to be speaking with in the beginning, but as we got under the hood of the car we weren’t sure we liked them or wanted to do business with them,” Crowley notes. “We spent a long time on this process and it was difficult. We had almost given up and thought it wasn’t meant to be when we met NextEdge and the rest is history.”

NextEdge Networks will provide the infrastructure experience and



Modus brings the rest when it comes to the execution of services.

“We like Doug Wiest, CFO Chris Maguire, and Titan Grove Holdings’ Jeffrey Tannenbaum,” Crowley says.

“We don’t work with people we don’t like and it is important to us

that our partners do business the right way.”

Moving forward, Modus plans to continue gaining marketshare where it makes sense. “On deck now we are focusing on new markets, in-building and fiber deployments,” he says. “We are

not looking to be the largest fiber company in the world, but there are certain areas we can be competitive and deploy that complement of services to our clients.”

EVER-CHANGING INDUSTRY

“Adapting, change and wireless are synonymous,” Crowley says. “We are not doing what we did three years ago and three years ago we weren’t doing what we were six years ago. The industry is changing all the time and we love being on the front-end of projects. I love the learning process and figuring stuff out. Living in the Bay Area has forced us to be creative. We were building small cells 10 years ago and became really proficient

at it so we were perfectly positioned four years ago when there was a massive push for small cells and right-of-way deployments to help our clients offload traffic.”

Modus predicts thousands of new projects will be coming online on the West Coast over the next three to five years. “There are 5G deployments we are working on right now,” Crowley says. “It’s finally starting to come as we have been talking about it for a while. Once 5G gets built up in multiple markets, that’s going to put additional pressure on the in-building coverage because most buildings are not equipped to handle that next generation yet. We will create a separate in-building team to get

in front of these opportunities and to go where the puck is heading and not where it is. 5G will force in-building upgrades and our goal is to be way in front of that.”

Even though wireless is an ever-changing industry, Crowley says in-building upgrades is where Modus predicts the industry will go over the next five years, but it can always change. “I started in this business in 1999 and honestly, at that time, thought I would have a job for two years because we would be done building all the towers required to provide seamless coverage,” Crowley remembers. “Fast-forward 18 years, we are further away from being done than we have ever been.” ■

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SUPERIOR ECONOMICS
TODAY

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WIRELESS INFRASTRUCTURE
AND SERVICES EXPERIENCE

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- ▶ 3,500 Fiber to Cell Deployments
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- ▶ Engineered 1st C-RAN Aggregation Node
- ▶ 1st CBRS (3.5 GHz) Network Deployment