

# Industry Success Stories

How CBRS is Driving Wireless Innovation for Enterprises and Service Providers

Airports

CBRS is gaining momentum in the US. The innovative shared spectrum methodology is being used more and more in a variety of industries, including education, manufacturing, and utilities. The number of Citizens Broadband Radio Service Devices (CBSDs) has skyrocketed from zero in early 2020 to more than **420,000** in 2025.

CBRS offers enterprises and service providers valuable mid-band spectrum at little or no cost, allowing users to ramp up with minimal upfront expenses.

CBRS has come to be used in a variety of formats, including neutral hosts, public and private networks, and fixed wireless access. With CBRS, enterprises and Wireless Internet Service Providers (WISPs) can accomplish things they were not able to do previously, either technologically or cost-effectively.

This eBook highlights how some industry verticals are benefitting from CBRS-based cellular network deployments.



90+ members of the OnGo Alliance (MSPs, SIs, WISPs, Vendors, Telcos)



420K+ **CBRS Small Cells** deployed in the US



> 1,100 devices authorized by FCC to operate in CBRS-spectrum



> 5,000 **Professional Installers** are CBRS Certified



> 1,000 different operators using GAA license



**5**G 5G-NR Ready





Industry 4.0 is changing the way companies manufacture their products. Factories are using new technologies to make their operations run more efficiently. Machine learning, AI, video analytics, IoT, cloud, and near-edge computing are all helping manufacturers use digital automation to bring their businesses to new heights.

Factories have found an impressive array of uses with CBRS-based wireless broadband networks, including HD-video for quality assurance, collaborative robots, AGVs, PTx, IoT, smart glasses, and the use of real-time data analytics to reduce downtime and help operations run more smoothly.

Airports







# NOKIA



John Deere Uses CBRS for Smart Factories

#### **CBRS Network Use Cases**

- Autonomous mobile robots
- Connected robotic welding

"Covering 50 acres under one roof, John Deere is standardizing on an 80/10/10 mix—about 80% private 5G over CBRS, 10% Wi-Fi and 10% wired Ethernet. With CBRS 5G radios, any time we replan the factory we can light up new zones immediately. Private 5G on CBRS is just how we move data now—it's the default."

**Jason Wallin,** Senior Principal Architect, Tech Stack, John Deere

John Deere has designed 700 tractor models since 1837





Toyota Material Handling Uses
CBRS for Industry 4.0

#### **CBRS Network Use Cases**

- **☑** Enhanced connectivity
- ☑ Replace Wi-Fi scannerswith 5G scanners

"The early benefits already being highlighted by Toyota Material Handling show the immediate impact a private 5G network can have on operations, employees, and customers. At Ericsson, we understand the importance of a strong, resilient, and secure network for businesses investing in Industry 4.0 best practices."

Manish Tiwari, Head of Private Cellular Networks, Ericsson Business Area Enterprise Wireless Solution

Toyota Material Handling has over 1.5 million square feet of manufacturing space over four US locations.









**Foxconn uses LTE and CBRS to operate** smart factory

**CBRS Network Use Cases** 

- ☑ Connects automation units, factory stations, a data center, lab space and a parts room

"This has demonstrated the orchestration of LTE over CBRS as a functional, reliable and economical solution for automating smart factories."

Airspan, CEO Eric Stonestrom

Foxconn operates a 100,000 square foot smart manufacturing park in Wisconsin.











**MxD deploys CBRS and LTE for Smart Factory** 

**CBRS Network Use Cases** 

☑ Addition of CBRS to existing mmWave network provides members with additional testing options

"As manufacturers look to adopt cellular, there is no one size fits all solution that they will all choose. MxD wants to ensure that we demonstrate and offer a selection of options at our facility for members and visitors. Our current installation focuses on 4G and 5G using private mmWave spectrum, and Betacom expands this by providing 4G and 5G using public CBRS spectrum."

**Berardino Baratta,** MxD VP for Projects and Engineering

Chicago's MxD is an innovation center with a 22.000 square foot factory floor and over 300 partners.

Airports

Military











Texas CBRS
Smart Factory for
Made-in-USA 5G

#### **CBRS Network Use Cases**

- Advanced manufacturing automation
- **☑** Connected utilities
- Real time system monitoring



### NOKIA kyndryl

CPChem Deploys 8 CBRS-based LTE Networks

#### **CBRS Network Use Cases**

- Covers indoor and outdoor environments
- Worker-connected phones and tablets



CBRS-based Private
5G Network Enhances
Operations in South
Carolina Plant

#### **CBRS Network Use Cases**

- ☑ Quality control
- **☑** Robotics
- ☑ Digital twin
- ☑ Logistics improvements

"This 5G Smart Factory ensures we are working closely to secure fast and agile deliveries to meet US customer requirements, and it has been exciting to see the growth and innovation of our state-of-the-art facility in just a few short years."

Yossi Cohen, President and Head of Ericsson North America

The expanded 300,000-square-foot highly automated smart factory employs more than 500 people and represents a total investment of \$150 million.

"We've kind of cracked the code in terms of working in some of the most hazardous environments in the world."

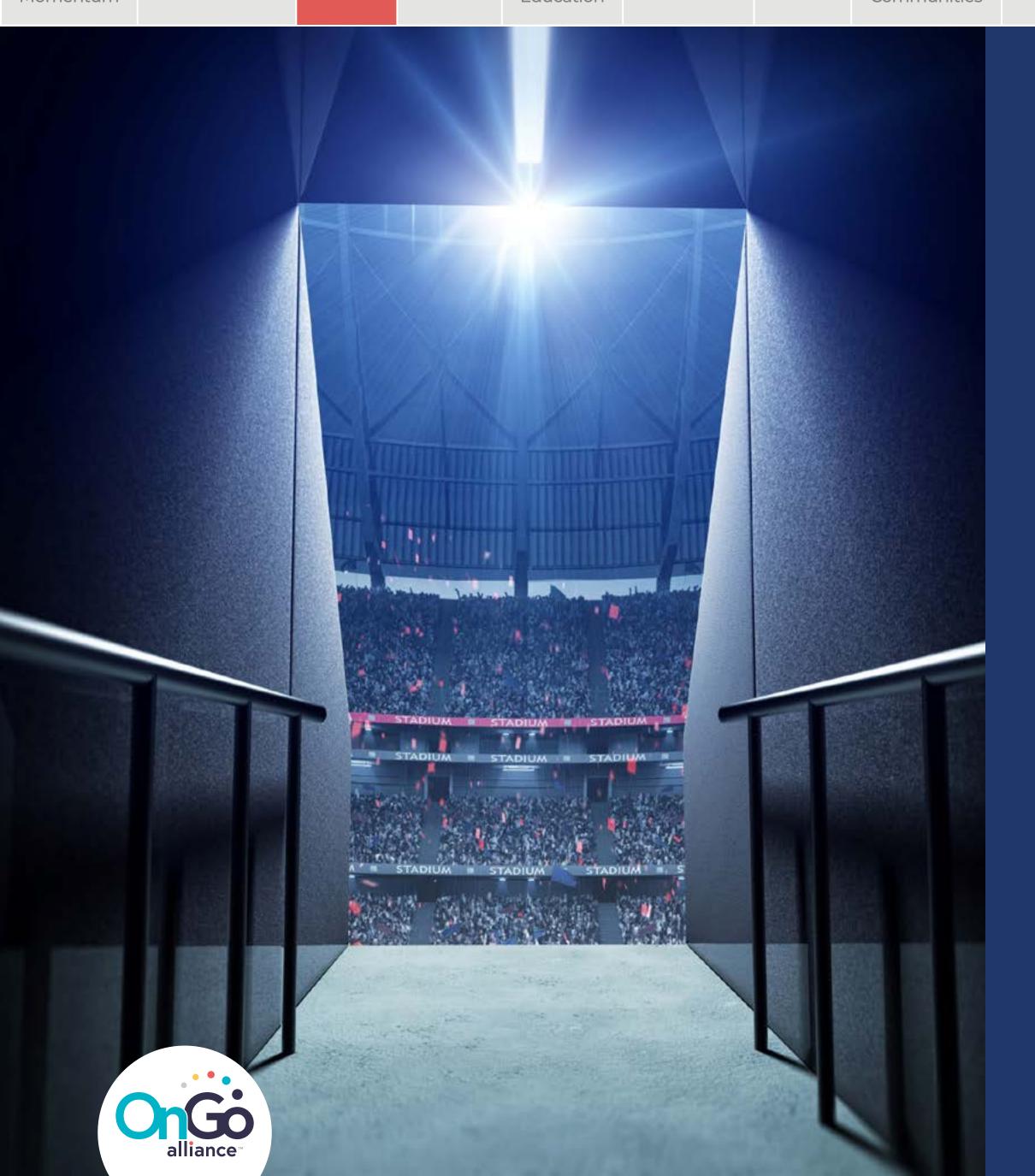
**Paul Savill,** Kyndryl's global Practice Lead for Networking and Edge Compute.

An estimated 3,000 mobile devices will be used for mission-critical business applications.

"I firmly believe that innovation, digitalization, and sustainability are key successors for the logistics and the future."

**Oliver Bilstein,** Vice President of Logistics and Production Control. BMW

BMW's South Carolina plant produces more than 1,500 vehicles per day.



Many major sports and entertainment venues are deploying CBRS-based mobile networks to improve connectivity and provide enhanced digital experiences for participants and fans attending games and events. Private mobile networks allow venues to have greater control over network traffic and provide dedicated bandwidth allocated specifically for that facility. This helps ensure reliable connectivity even when attendance is high, keeping fans connected for streaming video, checking stats, ordering food, and posting to social media. The localized nature of private networks means sports and entertainment venues can customize the mobile infrastructure to their specific needs rather than rely on public carrier networks designed for general consumer usage.

Airports

Utilities









Cowtown Coliseum Deploys Hybrid Network for Rodeos, Concerts, and Sporting Events

#### **CBRS Network Use Cases**

- ☑ Point of Sales
- ☑ Voice communications

"With thousands of fans flocking to the venue for each event, it's critical to have a wireless connectivity backbone that provides an unrivaled and immersive connected experience. This fuels our ability to enhance events for the record-setting millions of western sports and live entertainment fans who visit us annually from around the world."

**Jason Oberlander,** Chief commercial Officer of ASM Global (venue operator).

The Cowtown Coliseum was the first indoor arena to host rodeos in the country.









NFL Uses CBRS for Team Communications

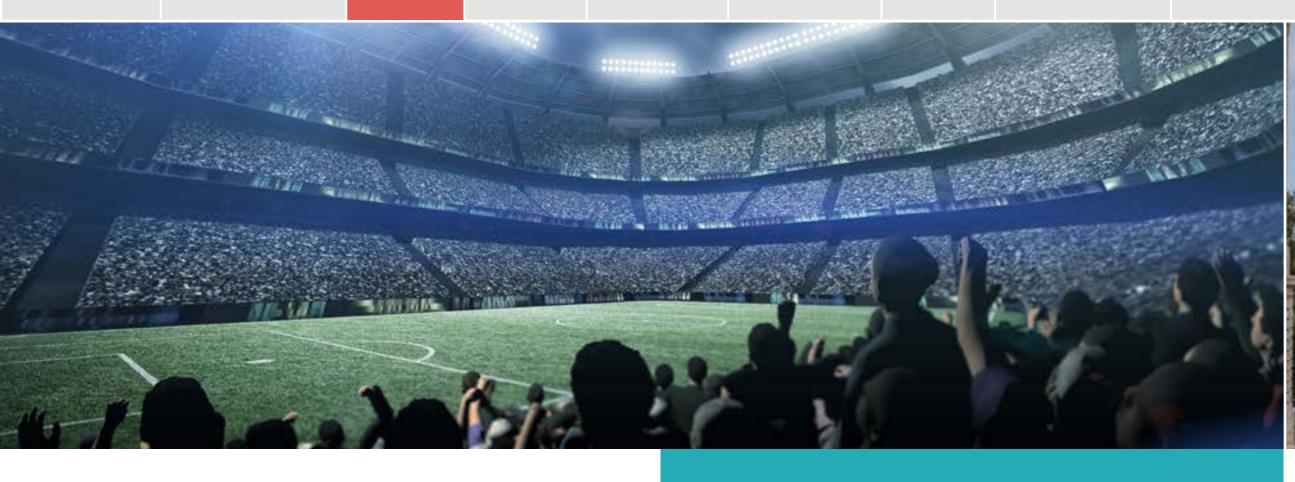
#### **CBRS Network Use Cases**

- Critical time-sensitive voice communications during game for NFL coaches to discuss strategy and call plays

"In an NFL game, every moment matters – seconds matter – as the margin between winning and losing is miniscule. The backbone of world-class play on-the-field is communication."

**Sowmyanarayan Sampath,** Verizon Business CEO

CBRS will be used at all 30 National Football League stadiums in 24 states.











Digital Health Sports Park, home to LA Galaxy, installs Private LTE network

#### **CBRS Network Use Cases**

- ☑ Remote parking lot surveillance
- ☑ Mobile ticket scanning
- ☑ Mobile media

"The expanded private [CBRS] network at Dignity Health Sports Park will ultimately enhance the operational technology and help ensure all of our new touchless enhancements, security measures and digital media have the secure connection to work seamlessly as we welcome fans back to our stadium."

**Katie Pandolfo**, General Manager of Dignity Health Sports Park

The 125 acres sports complex has multiple stadiums, seating nearly 40,000 fans. It hosts world-class professional, collegiate athletes, and 5-time MLS cup champions: LA Galaxy.







Haslam Sports Group deploys Private
Wireless at two stadiums – First Energy
Stadium & Lower.com Field

#### **CBRS Network Use Cases**

- ☑ Enhanced concession sales

"Getting Wi-Fi to those distances would have been extremely challenging and a very expensive proposition. The infrastructure installed worked very well because it was only a couple CBRS antennas, and it was minimal. The flexibility they had was well beyond what Wi-Fi or a public carrier service could ever offer."

**Brandon Covert,** VP of Information Technology for Haslam Sports Group (HSG)

First Energy Stadium seats 70,000 and Lower.com Field seats 20,000 fans



Airports are deploying private 4G and 5G networks using CBRS to enable advanced communications across their facilities. By building a CBRS-based private network, airports can provide secure, reliable cellular coverage for operations, staff communications, IoT devices, and passenger services. These private networks help airports support mobile check-in, baggage tracking, push-to-talk communications, GPS-based equipment location, video security surveillance, and more.







Newark Liberty International Airport Uses
Private LTE to Enhance Operations

#### **CBRS Network Use Cases**

- ☑ Improved coverage & capacity
  - indoors and outside
- ☑ Digital signage

"Boingo Wireless has deployed a world-class network that fulfills passenger demand for fast, seamless connectivity, while also providing a robust connectivity backbone to support digital airport operations. Newark Terminal A is utilizing a combination of leading wireless technologies to create a tech-forward experience for travelers and airport employees."

**Robert Galvin**, Chief Technology Officer for the Port Authority of New York and New Jersey

Newark's revamped Terminal A is scheduled to host over 14 million passengers per year.



Miami International Airport Uses CBRS to Transform into Smart Aviation Hub

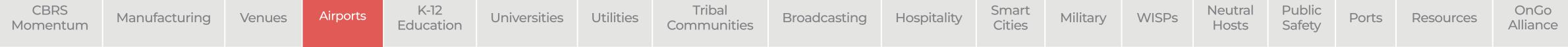
#### **CBRS Network Use Cases**

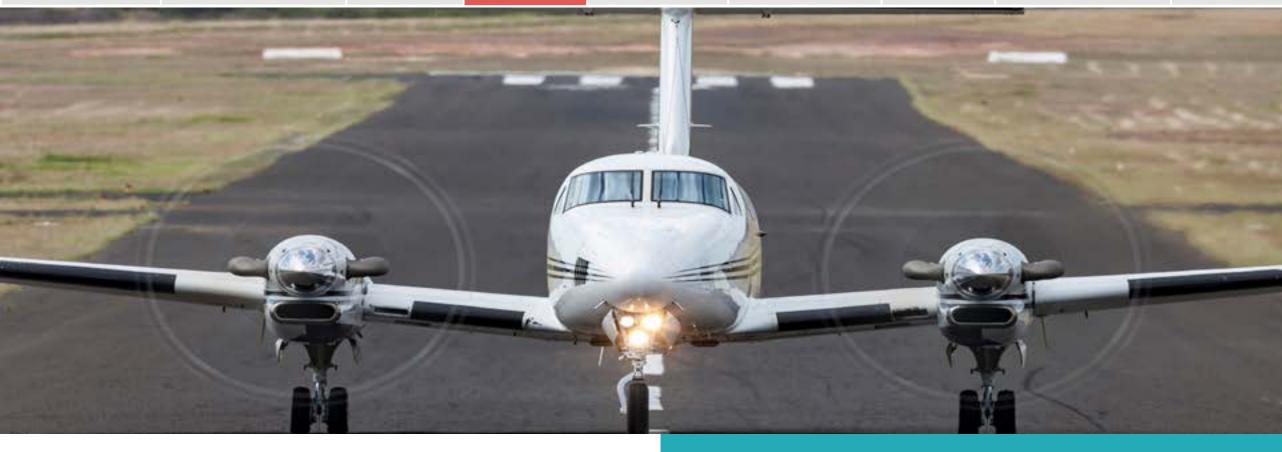
- ☑ Infrastructure monitoring
- ☑ Digital signage
- ☑ Video analytics
- ☑ Supply checks

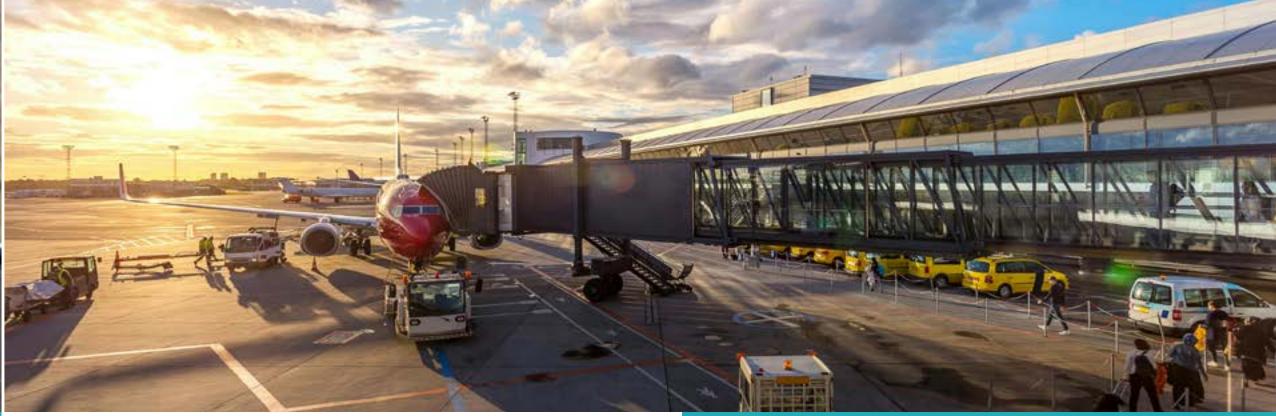
"As a longtime advocate of Private Wireless Networks, we recognize their potential to transform our airport operations. The CBRS platform proved to be the perfect fit for our Smart Airport initiatives."

**Ralph Cutié,** Director and CEO, Miami-Dade Aviation Department

The Miami International Airport is the country's second busiest for international passenger traffic.









Airport





Purdue University Airport Creates CBRS "Lab to Life" Testing Ground

#### **CBRS Network Use Cases**

- ☑ Flight safety enhancements
- Airport operations monitoring
- **☑** Security system integration
- ☑ Wireless sensor networking

"Purdue Airport has proven to be a key location in Indiana to aid commercial and industrial consumers. This collaboration enables us to study and better understand technologies that will be fundamental to airports of the future."

Adam Baxmeyer, Purdue Airport Manager

The airport conducts over 125,000 aircraft operations annually, making it Indiana's second-busiest airport, while serving as a unique testbed for next-generation aviation technologies.





Minneapolis-Saint Paul International Airport Uses CBRS-Based Private Network to Improve Airport Processes

#### **CBRS Network Use Cases**

- ☑ Infrastructure monitoring
- ☑ Digital signage
- ☑ Airside maintenance tracking
- ☑ Video surveillance
- ☑ Mobile application use

"We are always looking for ways to leverage technology to provide innovative solutions and improve both operational efficiency and the customer experience."

**Eduardo Valencia,** the CIO of the Metropolitan Airports Commission

The Minneapolis-St. Paul International Airport serviced over 34 million passengers in 2023.









**CBRS Helps Tulsa Airport Set New Standard for Regional Aviation** 

#### **CBRS Network Use Cases**

- ☑ Perimeter security

- ☑ Airfield communications

"We see TUL as leading the way for smaller and mid-size airports. TUL is forward-thinking by investing in private cellular for improved operations and attracting more technology investments by the airlines."

**Rob Cerbone,** Vice President of Marketing at CTS

The Tulsa International Airport features an impressive collection of Native American art and cultural exhibits, reflecting Oklahoma's rich indigenous heritage.



DFW Airport Uses Private CBRS To Move Into the Future

#### **CBRS Network Use Cases**

- **☑** Concessionaire monitoring
- ☑ Tracking people moving equipment

"There's just an endless assortment of use cases."

Mike Youngs, VP for IT, DFW Airport

DFW Airport hosts over 87 million customers per year, making it the 3rd busiest in the world.

Airports



K-12 schools have provided CBRS-based broadband access to students who had challenges attending virtual classes and doing their homework, which has moved increasingly online.

Lowering the 'homework gap', enabling digital signage, providing enhanced learning spaces and neighborhood coverage, and enhancing safety and security are prime use cases for K-12 schools.













Tukwila, Washington and Federated Wireless **Use CBRS to Connect Students** 

**CBRS Network Use Cases** 

"Having access to internet-based learning tools from home is a crucial component of this mission. This network empowers us to bridge the digital divide that has unfortunately disadvantaged some of our students for far too long."

Concie Pedroza, Tukwila School District Superintendent

A grant from the Washington State Department of Commerce helped fund the CBRS-based private network.











**Parkside Elementary Uses CBRS** for Learning and Safety

#### **CBRS Network Use Cases**

- ☑ Robust network coverage
- emergency services

"This technology is a gamechanger for our students and staff, ensuring that they can stay connected for both educational and emergency purposes."

**Jason Eyre,** Technology Department Coordinator for the Murray School District

The Murray City School District was recognized in 2021 as the first in the country to deploy a private LTE network for students.



K-12







**Jackson Public Schools Deploys CBRS Network to Bridge Digital Divide** 

#### **CBRS Network Use Cases**

- Remote learning connectivity

"At Alef, we are passionate about leveraging technology to enhance educational opportunities. Our collaboration with JPS, backed by the Kellogg Foundation not only addressed immediate connectivity needs but also provided an efficient way for JPS technology staff to remotely configure and monitor devices."

Mike Mulica, CEO of Alef

Jackson Public Schools serve nearly 17,000 students in 36 schools over an area covering 104 square miles.





**Nacogdoches ISD Use CBRS Network to Help Community** 

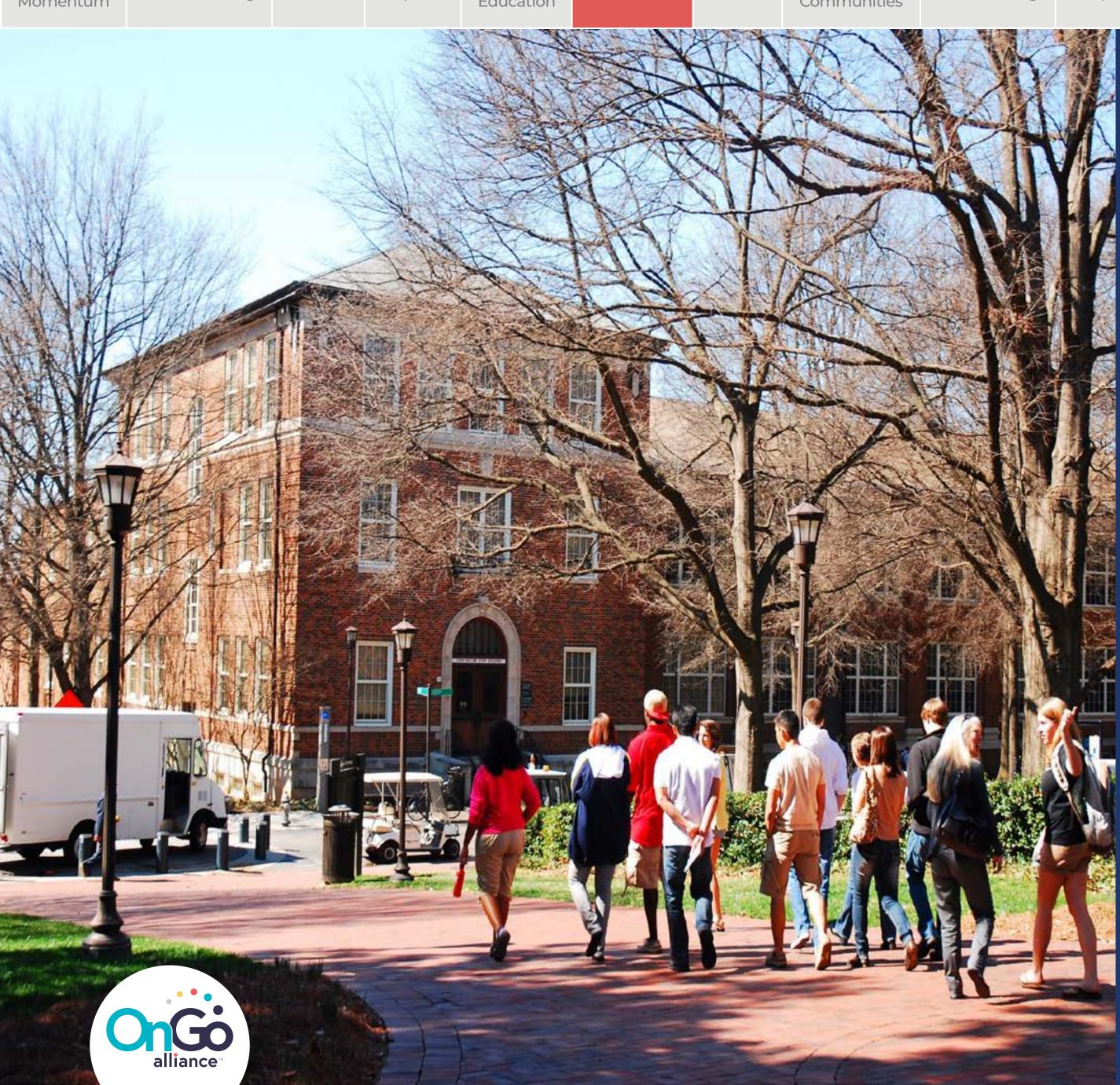
#### **CBRS Network Use Cases**

- ☑ Upgraded broadband bandwidth across the network
- **☑** Expanded school coverage to include neighborhood homes

"Too many families in too many communities are falling behind because they lack access to affordable broadband connectivity. This is an opportunity to try an alternative method that will positively impact our students."

**Dr. Gabriel Trujillo,** NISD Superintendent

Nacogdoches ISD has over 6,500 students spread over six public elementary schools, one middle school, and three high schools.



Universities have found benefits from a CBRS network, expanding coverage with far fewer access points than Wi-Fi over entire campuses as well as in classroom buildings, dorms, athletic centers, and sports arenas. Innovation hubs have been created on campuses to solve industry challenges. CBRS can also be used to track equipment that is often moved from classroom to classroom or from building to building, handle PoS, and enable HD video for security.



Manufacturing

Venues

Airports

Universities

Utilities









**Cal Poly Pursues CBRS-based Campus Innovation Lab** 

#### **CBRS Network Use Cases**

- ☑ Innovation hub
- ☑ Neutral host network

- ☑ Autonomous farming research

"Cal Poly continues to lead in the development of a digital campus. We're driving innovation for smart buildings and smart agriculture by introducing new devices and applications, and now we have a more reliable way to get data from point A to point B. Federated Wireless and AWS are giving us the 5G backbone to make the digital campus a reality."

Bill Britton, Cal Poly's vice president for information technology services and chief information officer

Cal Poly's six colleges offer 150 undergraduate majors and minors and over 50 graduate programs.





**CBRS Accelerates Smart Agriculture at The Ohio State University** 

**CBRS Network Use Cases** 

☑ Enable advanced precision agriculture applications

"As our needs evolve, we can expand the network very quickly and inexpensively to pursue new research initiatives that will accelerate the adoption of digital agriculture technologies to improve agricultural productivity and sustainability at farm, regional, national, and global scales."

Dr. Scott A. Shearer, chair of Food, Agricultural and Biological Engineering at The Ohio State University

OSU has more than 200 academic centers and institutes





Ports

Resources



# NEC

Virginia Tech and NEC Deploy CBRS for Smart Road Safety System

#### **CBRS Network Use Cases**

- **☑** Real-time hazard detection
- ☑ Traffic condition monitoring
- ☑ Pedestrian safety alerts

"The concept of infrastructurecooperative mobility requires highly reliable, low-latency communications via a dedicated network to predict or detect incidents near intersections."

Mike Mollenhauer, Director of the Division of Technology Implementation at VTTI

VTTI has the largest number of driving safety researchers in the world.



Hospitality



#### SAMSUNG

Military

**WISPs** 

**Enhanced Campus Connectivity with CBRS Across Howard University** 

#### **CBRS Network Use Cases**

Secure and enhanced broadband connectivity to students, faculty, and local residents traveling the university's campus

"We're pleased that Samsung's CBRS technology was able to quickly deliver secure and reliable wireless connectivity for the students, faculty and visitors of Howard University."

OnGo

Alliance

Imran Akbar, Vice President and Head of New Business Team, Networks Business, Samsung Electronics America

The 256-acre campus of Howard University is host to nearly 9.000 undergraduate students Utilities









**University of Arizona Rolls Out CBRS for Precision Agriculture** 

**CBRS Network Use Cases** 

- ☑ IoT device connectivity
- ☑ Real-time field monitoring
- ☑ Agricultural technology testing

"Now there is a location to come and test, train for, and showcase agricultural technology, so when the technology is ready to go to the farmer it is ready to be implemented."

Tanya Hodges, executive director of the Yuma Center of Excellence for Desert Agriculture

The Tulsa International Airport features an impressive collection of Native American art and cultural exhibits, reflecting Oklahoma's rich indigenous heritage.







**University of Wisconsin Research Facility Uses Private 5G for Industry 4.0 Testing** 

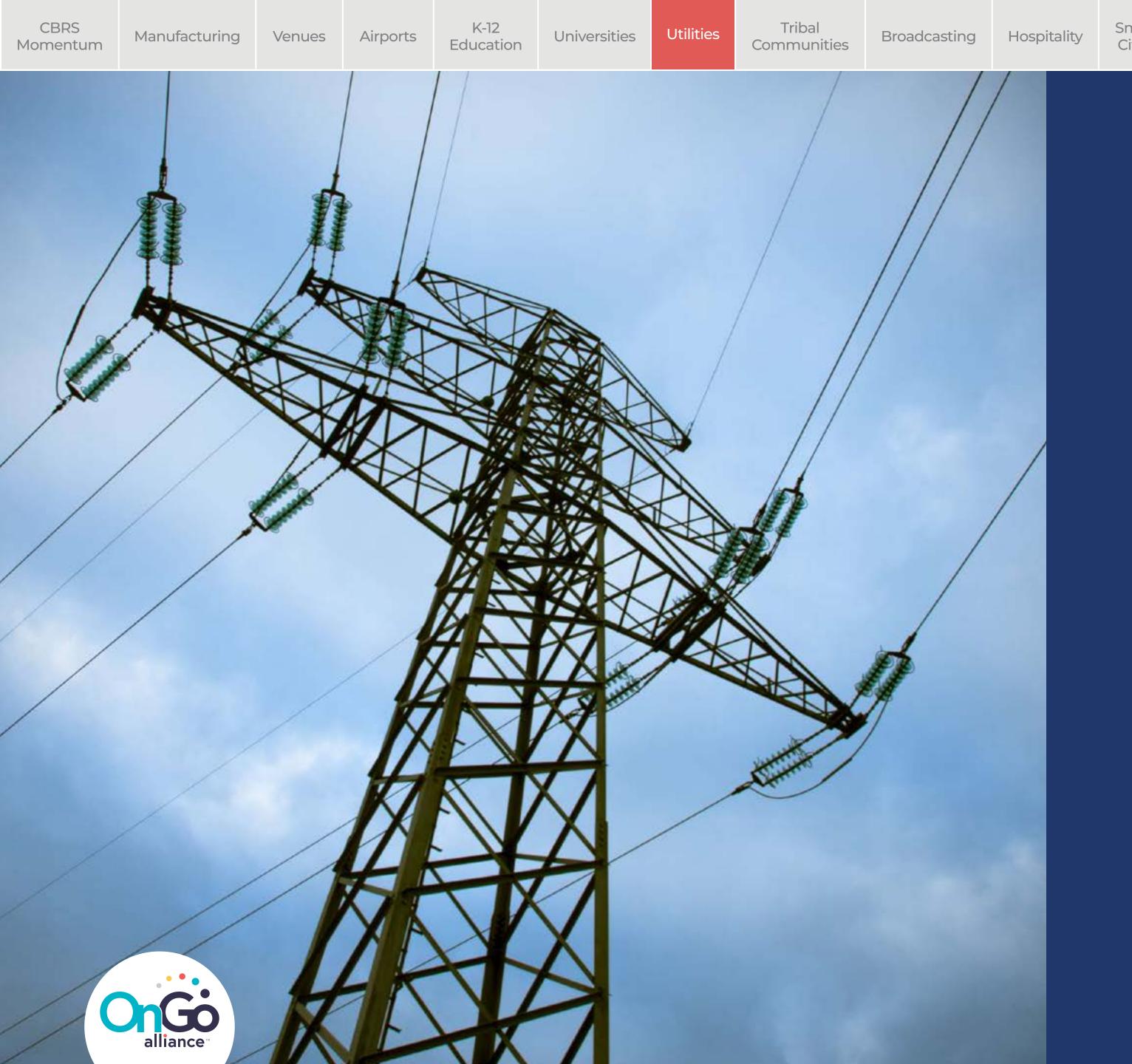
#### **CBRS Network Use Cases**

- ☑ Industrial IoT
- ☑ Digital Twins
- ☑ AR/VR
- ☑ Autonomous robots

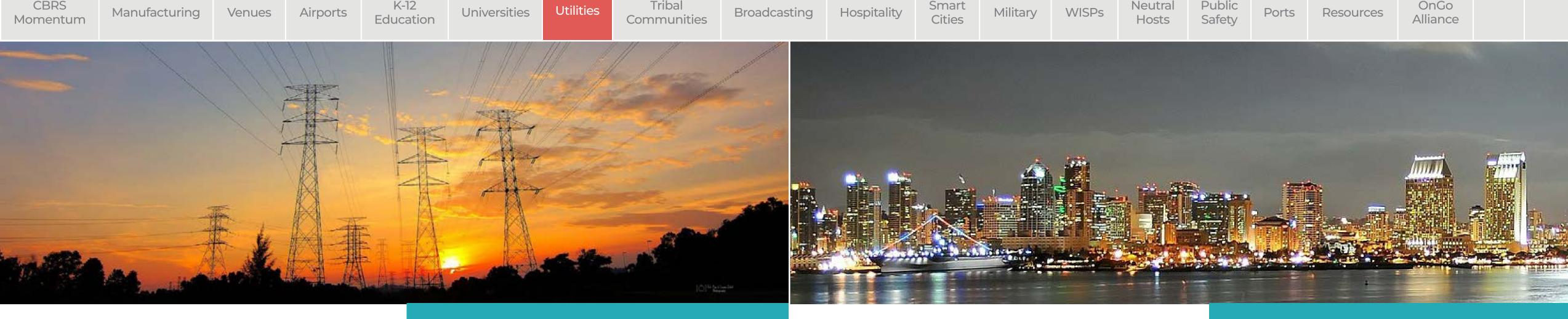
"The CSI (Connected Systems Institute) plays a critical role in Wisconsin and beyond to accelerate innovation, develop a highly skilled workforce and drive economic growth. UScellular's investment in CSI allows us to advance research and business use cases, while helping our students develop skill sets needed for Industry 4.0."

**UWM Chancellor Mark Mone** 

**UW-Madison's 936-acre campus hosts** over 47,000 students from all 50 states and 130+ countries.



Utilities are using CBRS to securely create their own private networks, which can be used for machine-to-machine communication, advanced metering infrastructure, smart grid applications, and to provide broadband coverage to areas where traditional communications networks are not available. Additionally, CBRS can be used for high-speed, low-latency communications, allowing utilities to reduce operational costs, increase reliability, and improve customer service.







Illinois Electric Cooperative to connect underserved rural communities with CBRS

#### **CBRS Network Use Cases**

- **☑** Fixed Wireless Access
- ☑ Improved capacity & coverage
- **☑** Better user experience

"Illinois Electric Cooperative is taking a major step towards expanding connectivity and broadband services in areas where they are unavailable."

**Matt Haverfield,** Network Operations Manager for Illinois Electric Cooperative

Founded in 1936, the IEC provides electricity and Internet service to 14,000 rural accounts across the state.



#### NOKIA

San Diego Gas & Electric starts private LTE build with CBRS spectrum

#### **CBRS Network Use Cases**

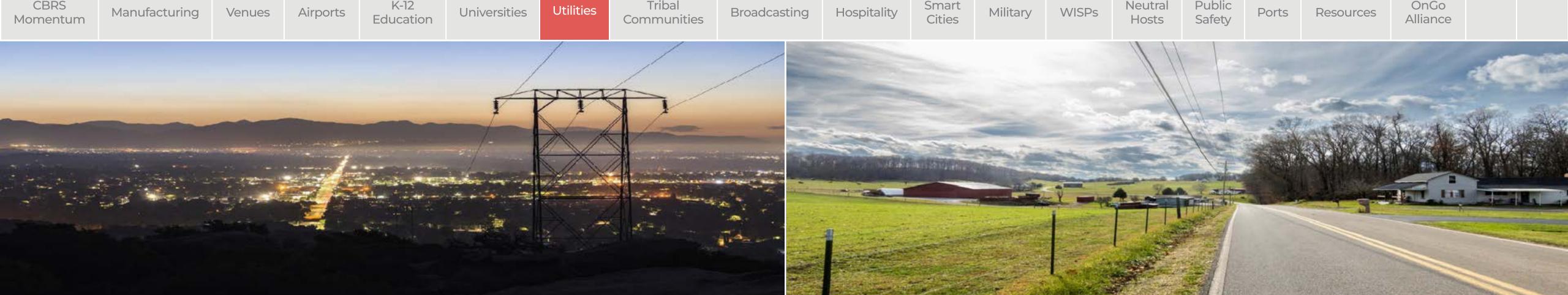
#### Planned use cases

- **☑** Metering
- **☑** Faulted circuit indication
- ☑ Mission critical push-to-talk

"Private LTE really does change the landscape for utilities that go down that path. It helps us as a whole, as a country, as a community, to have that reliability and sustainability of our power systems."

**Bruce Albright,** Burns & McDonnell's company's 5G solutions manager (Contractor supervisor for SDG&E project)

SDG&E provides energy to over 3 million customers in Southwestern California over 4,100 square miles.







Southern California Edison
Launches First Utility Private 5G
Field Area Network

#### **CBRS Network Use Cases**

- ☑ Real-time grid monitoring and fault detection
- ☑ Remote equipment management

"Realizing the clean energy future depends on high-performing, scalable and secure technology.
Our grid modernization program includes upgrading the wireless communications network that helps our teams, and our systems, talk to each other."

**Todd Inlander,** SCE Senior Vice President and Chief Information Officer

SCE provides power to 15 million people over roughly 50,000 square miles.





First Municipal Private 5G Network for Grid Modernization

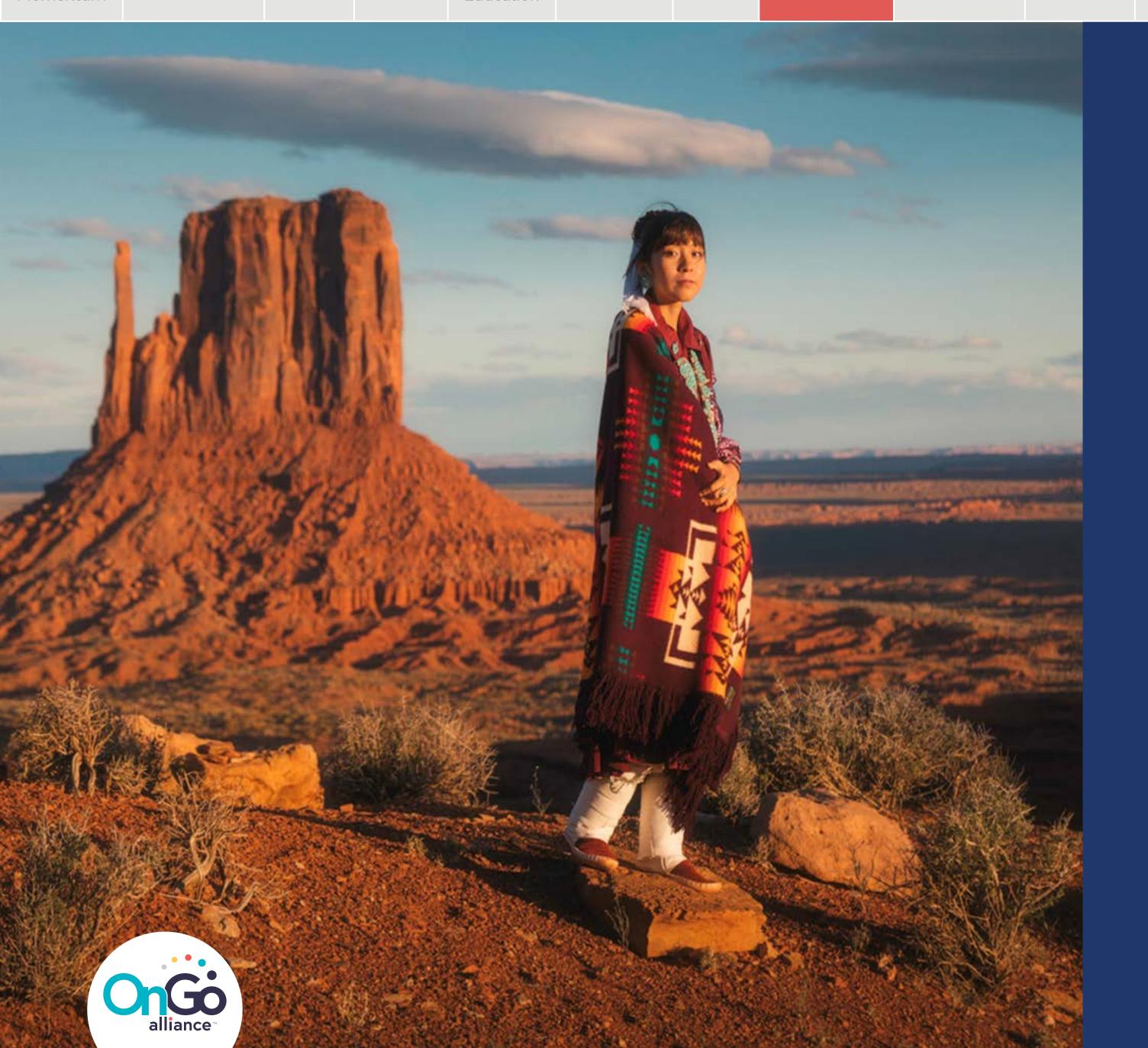
#### **CBRS Network Use Cases**

- ☑ Grid modernization
- Automated meter reading
- ☑ Fault detection

"The 5G Network Deployment is a foundational aspect of MLGW's Grid Modernization Initiative. We will be able to meet the requirements for a modern electric grid. We will have fast and reliable communication for grid devices; increased reliability during storms or cyber events that will help us restore power even faster after outages."

**Doug McGowen,** President and CEO of MLGW.

MLGW is owned by the city of Memphis, providing service to over 420,000 customers.



Tribal communities are leveraging CBRS to achieve digital sovereignty and bridge the connectivity gap in rural areas. Private wireless networks allow tribes to establish and maintain control over their own telecommunications infrastructure without depending on traditional service providers. The technology enables tribes to deploy cost-effective networks that cover large territories, supporting essential services like broadband, education and healthcare. CBRS also enables tribes to manage their own network operations, set service priorities, and ensure equitable digital access across their communities.











Yakama Nation Deploys CBRS Network to Bridge Digital Divide

#### **CBRS Network Use Cases**

- Enhanced network stability and reliability
- Remote network monitoring and management

"Yakama Nation is extremely passionate about providing their end users equitable access to digital resources, including reliable internet services."

Last Mile Gear case study

The Yakama Indian Reservation covers over one million square miles in eastern Washington state.





Poarch Band of Creek Indians
Achieves Digital Sovereignty with
Private CBRS Network

#### **CBRS Network Use Cases**

- Private LTE network with full tribal control
- ☑ Dedicated telecommunications hub
- ☑ Rural community broadband access

"In the midst of the Covid pandemic, we realized our rural community was light years behind in connectivity. Our primary objective with investing in high-speed internet solutions was to enhance our community's capacity to learn, connect, and foster a technological future that would facilitate workforce development."

Stephanie A. Bryan, PCI Chair and CEO

The Poarch Band of Creek Indians reside in Alabama and Florida

Utilities



Broadcasters are leveraging CBRS to enable more flexible and efficient remote broadcasting, field reporting, and live event coverage. Private wireless networks allow broadcast teams to transmit high-quality video and audio without relying on satellite trucks or unreliable public networks. The technology enables broadcasters to set up temporary networks at event locations, providing dedicated bandwidth for cameras, microphones, and production equipment. CBRS also supports innovations like remote production capabilities, wireless cameras, and real-time transmission of broadcastquality content back to studios.













**CBRS Revolutionizes Political Convention Coverage** 









**CBRS Conquers Off-Road Rally Broadcasting Challenge** 



## COMCAST **BUSINESS**

**Next-Gen Golf Tournament Uses CBRS** to Drive Innovation





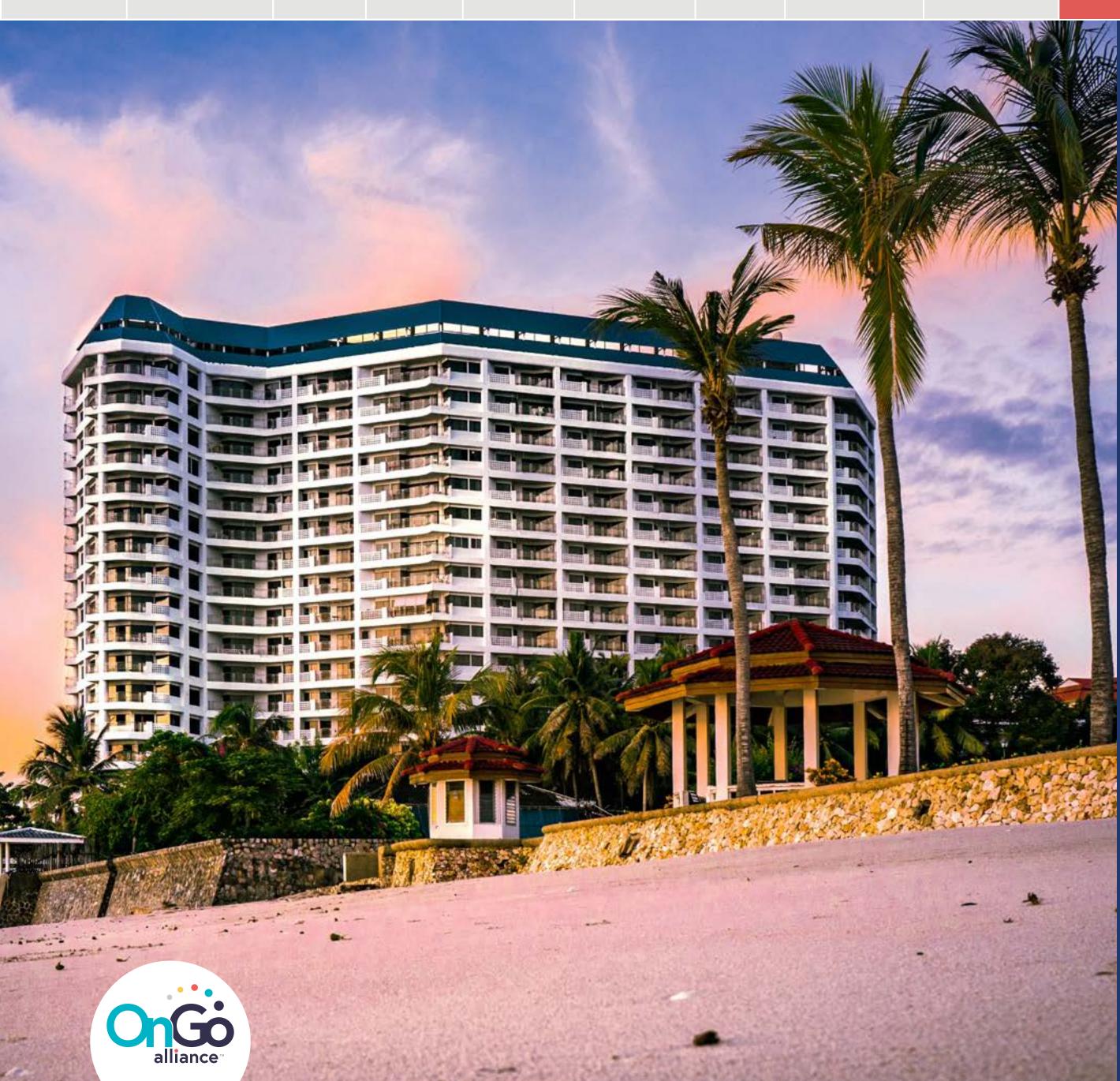
**CBRS Powers Cutting-Edge Studio Operations** 

The 2024 national political conventions utilized CBRS private networks at Milwaukee's Fiserv Forum and Chicago's United Center, enabling seamless mobile broadcasting for 50,000 attendees at each three-day event.

AT&T, Media Links, and Teradek deployed **CBRS** at Lake Superior Performance Rally to broadcast remote off-road racing, combining private wireless networks with satellite transmission for comprehensive coverage.

Comcast implemented CBRS private 5G at The Players Championship, supporting real-time video streaming and analytics while enabling unprecedented behind-the-scenes access across the golf course.

TBN's new Dallas-Fort Worth PLEX broadcast center uses CBRS to power twenty simultaneous broadcasts with secure, high-speed wireless connectivity.



Hospitality is comprised of a wide swath of people-pleasing industries, including hotels, casinos, cruise ships, and tourism. They are using CBRS to provide guests with reliable, high-speed internet access, improve their internal operations such as point-of-sale systems, security cameras, contactless check-in, room notifications, and for streaming entertainment.











Seattle's Sound Hotel adds CBRS-based private network

#### **CBRS Network Use Cases**

- Environmental sensors
- ☑ Al and ML powered video surveillance

"The Sound Hotel blends
Seattle's creative bedrock with
its innovation boom. We strive to
provide our guests with a truly
unforgettable experience – and
connectivity is central to that."

**Barry Baxter,** General Manager, The Sound Hotel

The Sound Hotel in Seattle offers
142 rooms in the beautiful Belltown
neighborhood in Seattle.





Faena Hotel, Miami Beach, deploys CBRS-based private LTE network

#### **CBRS Network Use Cases**

- Neutral Host Network
- ☑ Improved coverage
- ☑ Enhanced wireless capacity

"The Faena Miami Beach is a perennial award-winning luxury resort, known for its VIP clientele and events. Their guests are accustomed to superior service, and we are proud to enable superior mobile connectivity for Faena guests, staff and visitors. We are thrilled to have been chosen to support the Faena's technology needs with this ground-breaking new CBRS technology."

Dan Harkness, CEO of Quantum Wireless

The Faena Hotel in Miami Beach was the first hotel to receive the Forbes five-star rating the year it opened.



Smart Cities integrate advanced technologies and data-driven solutions to enhance the efficiency, livability, and sustainability of urban areas. Using interconnected IoT devices, sensors, and data analytics, cites are able to optimize the management of city services and resources. Smart cities improve the quality of life for residents by reducing congestion, lowering pollution, and managing resources efficiently.

Manufacturing

Bricells

Longmont, CO

**Expands School** 

**District CBRS Network** 

to Offer City Services

Venues

Airports

Universities

Utilities

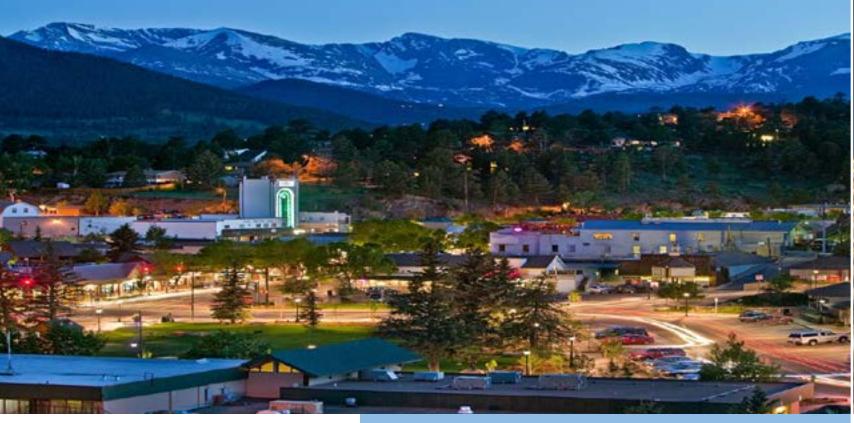
Broadcasting

Hospitality

Military

Resources

OnGo Alliance





- ☑ Improved coverage & capacity
- ☑ Availability for school children throughout city
- public parks







**Las Vegas Uses CBRS to Bridge** the Digital Divide

#### **CBRS Network Use Cases**

- **Educational connectivity**
- and government



Glendale

celona

**Glendale Pilots CBRS Network for Smart City Applications** 

#### **CBRS Network Use Cases**

- ☑ HD video surveillance
- ☑ Traffic monitoring
- ☑ Smart utilities control

"Part of the vision is to get everyone connected." It's not about profit, it's about connections."

Valerie Dodd, Executive Director of NextLight

Longmont has approximately 100,000 citizens and is located roughly 10 miles from Boulder

"We want to be known across the world as the entertainment capital, but we also want to be known as a technology epicenter where we have the right ecosystem to bring business and people together to create great opportunities for the future."

Michael Sherwood, Chief Innovation Officer for the City of Las Vegas

SDG&E provides energy to over 3 million customers in Southwestern California over 4,100 square miles.

"Celona's private 5G system looks to be an ideal connectivity canopy for many transformational smart city use cases vital to our future."

Feroz Merchhiya, Chief Information Officer at the City of Glendale, Arizona

Glendale, AZ is a suburb of Phoenix, the state capital, and home to roughly 250,000 people.









Brownsville's CBRS-based Smart City Aims at the Future

#### **CBRS Network Use Cases**

- ☑ IoT device connectivity
- ☑ Enhanced public safety

"We're seeking to reinvent human-to-digital interactions in ways that deliver amazing citizen services and an outstanding quality of life."

John Cowen, Jr., Mayor of Brownsville

Brownsville has been recognized for being the city with the lowest cost of living in the United States.









Spokane's CBRS-based Smart City
Aims at the Future

#### **CBRS Network Use Cases**

- **☑** Fixed Wireless Access
- **☑** Connected cameras
- ☑ IoT device connectivity

"This project was very rewarding because we brought high-speed connectivity to unserved and underserved areas of Washington State, enhancing the quality of life by providing critical health data in real-time from the patient to the physician."

**Ben Ealey,** Chief Operating and Technical Officer of coreNOC, Inc.

Spokane is known for being the birthplace of Father's Day.

Military bases can benefit significantly from CBRS-based private networks as they have large populations, enormous inventories, and high-tech devices that must be remotely and securely managed. Private networks allow personnel to integrate advanced technologies like IoT devices, drones, and autonomous vehicles, enabling enhanced surveillance, logistics, and overall operational capabilities.

osts Safety Ports Resource

Utilities









Marine Corps Logistics Base Albany Tests
Advanced Warehouse Operations

#### **CBRS Network Use Cases**

- ☑ Real-time robotics
- Inventory and asset management assistance

"We are excited to begin working with other DoD and military leaders to extend the power of edge computing and private 5G to telehealth, training, facilities security, supply chain optimization, and other mission-critical operations."

**Kurt Schaubach,** Chief Technology Officer of Federated Wireless

The US Department of Defense allocated \$600 million in 2020 to test 5G on multiple military bases





Fort Carson Tests Smart Base Transportation

#### **CBRS Network Use Cases**

- ☑ Traffic and weather integration
- ☑ Improved decision making
- ☑ Internet of Things

"The project seeks to utilize a 4G network to exploit technology capabilities that leverage AV sensors, then integrate that data with other data sources to inform decision making."

**Jim P. Allen,** Army Engineer Research and Development Center's program manager

Fort Carson bills itself as the "Best Hometown in the Army - Home of America's Best."

Wireless Internet Service Providers (WISPs) have been for years on the forefront of bridging the digital divide. They build local networks in lesser-served areas and are a source of great support for these communities, providing reliable and affordable broadband. A large part of this is done with Fixed Wireless Access (FWA). WISPs have been the early frontrunners in utilizing the Innovation Band, successfully offering high speed access to consumers and businesses with CBRS FWA.

Military

Incoming funding for broadband through BEAD and other federal programs have the potential to further increase WISP CBRS deployments. State broadband offices are expected to lay out plans where CBRS FWA will be complimentary to fiber, especially in areas where deploying fiber would be impractical due to costs, location, and supply time. The WISPs should be able to leverage their extensive FWA experience and broaden their reach.













local2u delivers WISP and MVNO services with CBRS



How a Kansas ISP Swiftly Leveraged CBRS to Connect a Rural Community

Nextlink is an ISP that delivers broadband internet and voice services in Illinois, Iowa, Nebraska, Texas, Oklahoma, and Kansas to residences and businesses.

local2u is a West Virginia company that delivers fixed wireless and mobility in one solution, rolling out service to more than 60 sites in the state. Velocity is a Kansas-based ISP, part of the Butler Electric Cooperative that serves roughly 7,500 residential and commercial sites.



**Farmers Use CBRS to Increase Yields** 



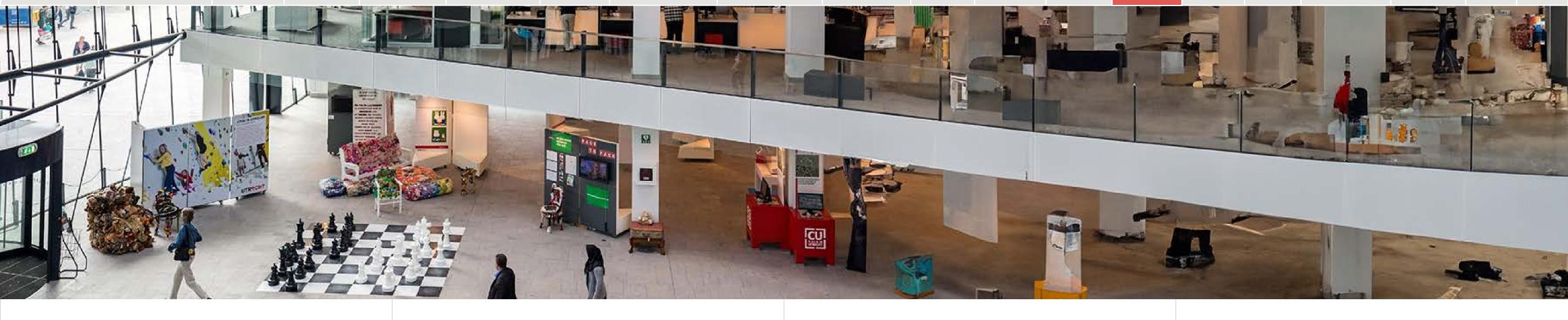
**CBRS Powers FWA to Rural Communities** 

Trilogy Networks is a private company based in Boulder, Colorado, that supplies a hybrid multi-cloud network that accesses over 1,000 rural operators.

HarvestBeam is a fixed wireless broadband provider serving rural communities in eastern North Carolina.

Exceptional indoor cellular coverage for employees, tenants, and customers is now more accessible for enterprises than ever before, thanks to CBRS-based neutral host networks. These networks enable multiple mobile operators to share infrastructure, which is delivered by a single neutral host operator. This allows enterprises to take control of their cellular services using shared spectrum, ensuring that users experience seamless connectivity for making and receiving calls throughout the building—it just works.

Resources





Gale South Beach Deploys
Mobile Coverage as a Service
Neutral Host Network







**University of Virginia Trials CBRS Neutral Host Network on Campus** 





Exclusive Las Vegas Nobu Hotel Adds CBRS-based Neutral Host Network







Largest University in the US
Begins to Deploy Neutral Host
Network on Campus

The Gale South Beach is a prestigious property with 87 comfortable, top-line rooms in a fanciful Art Deco setting.

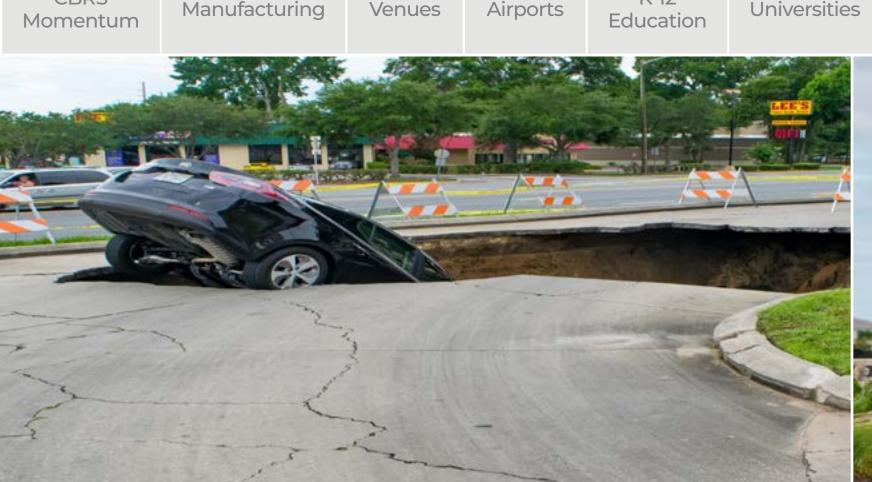
The University of Virginia was founded in 1819 by Thomas Jefferson. Its central campus covers over 1,000 acres.

The Nobu Hotel is a 182-room boutique hotel located within the Caesars Palace resort in Las Vegas.

ASU's facilities cover over 23 million square feet. The university offers over 400 undergraduate programs and majors.



Public safety infrastructure is increasingly reliant on resilient communications during critical events and natural disasters. CBRSenabled private networks provide essential connectivity when traditional systems may be overwhelmed or compromised. Emergency management teams deploy these networks to support disaster response operations including evacuation coordination, medical triage, and resource allocation. The technology enables real-time situational awareness through video feeds, IoT sensors for early warning systems, and mobile command centers with dedicated bandwidth. CBRS networks are proving invaluable during hurricanes, wildfires, floods, and earthquakes, allowing responders to maintain communications when public infrastructure fails, ultimately saving lives and accelerating community recovery efforts.



CBRS

Micro Seismic

**Sinkhole Detection** 

**Supported by CBRS** 



**☑** Sinkhole detection



#### **CBRS Network Use Cases**

Hospitality

- communications
- ☑ First responder coordination
- **☑** Community reconnection





**☑** Gunshot detection

**CBRS Network Use Cases** 

OnGo

Alliance

Resources

Ports

Safety

**☑** Emergency response



Utilities

**CBRS Helps Detect Gunshots in Texas School Districts** 

Neutral

Military

WISPs

"Finding a wireless communication solution that provides high volume data collection in remote locations has been a real challenge for us."

Jerry Driskell, operations supervisor at MicroSeismic.

Florida reports roughly 6,000 sinkholes per year.

"CBRS frequencies were a natural choice, as they are supported by most modern handsets, ensuring immediate compatibility with devices in the field. The use of CBRS also allowed for higher RF transmission levels, providing wider area coverage with fewer base stations."

#### Cumucore

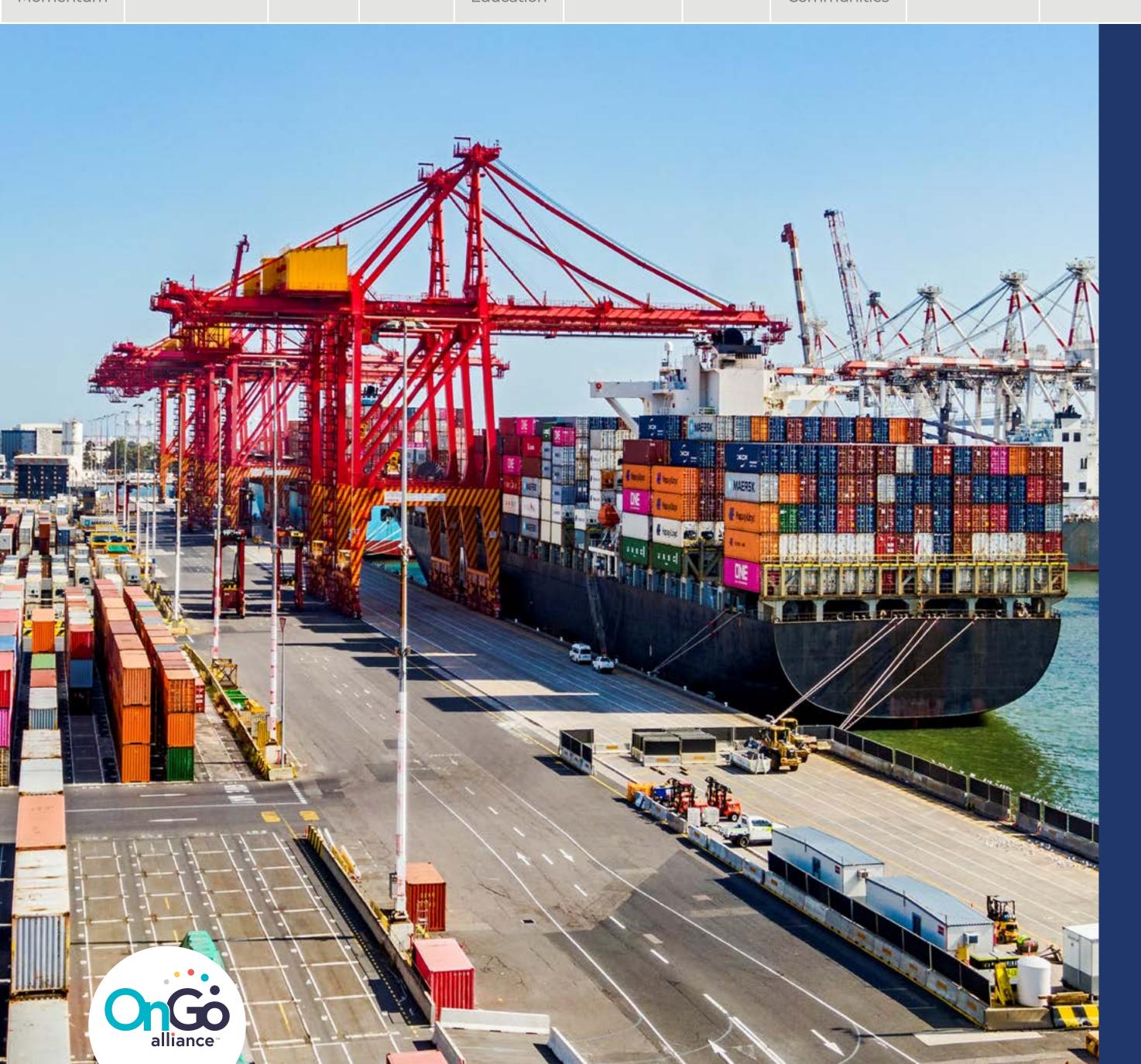
Hurricane Helene in 2024 resulted in an estimated \$87 billion in damage.

Wytec is deploying their embedded AI and machine learning solution in over 170 U.S. cities, for schools, hospitals, and public safety organizations.

Nearly 25% of school shootings from 2000-2022 were at elementary schools.



Broadcasting



Seaports serve as critical hubs in the global supply chain, handling massive volumes of cargo and requiring precise coordination across vast terminal areas. CBRS private networks are modernizing port operations by providing reliable wireless connectivity for container tracking, automated guided vehicles, crane operations, and security systems. These networks support real-time monitoring of shipping containers, streamlined customs processing, and improved worker safety through connected personnel tracking. Port authorities are leveraging CBRS to enable smart port initiatives including predictive maintenance for equipment, environmental monitoring, and digital twins that optimize berth allocation and cargo flow, ultimately reducing vessel turnaround times and increasing throughput capacity.

Airports







Port of Oakland Uses CBRS to Improve Yard Operations

#### **CBRS Network Use Cases**

- ☑ Industrial IoT

- ☑ Remote CCTV cameras

"We seek to gain new efficiencies by using wireless, IoT and the available analytics to enable multiple smart port applications by leveraging this reliable high-speed mobile data and communications platform."

**Bill Aboudi**, President, Oakland Maritime Support Services

The Port of Oakland supports nearly 100,000 local jobs.



# NOKIA KY

CBRS Powers Operations at Port of Tacoma

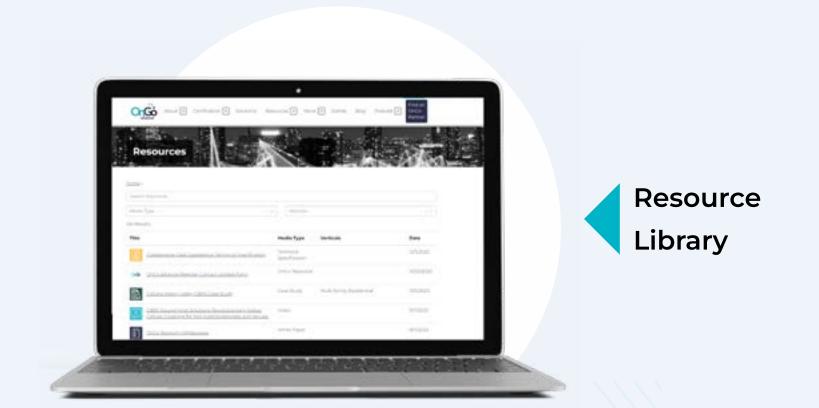
#### **CBRS Network Use Cases**

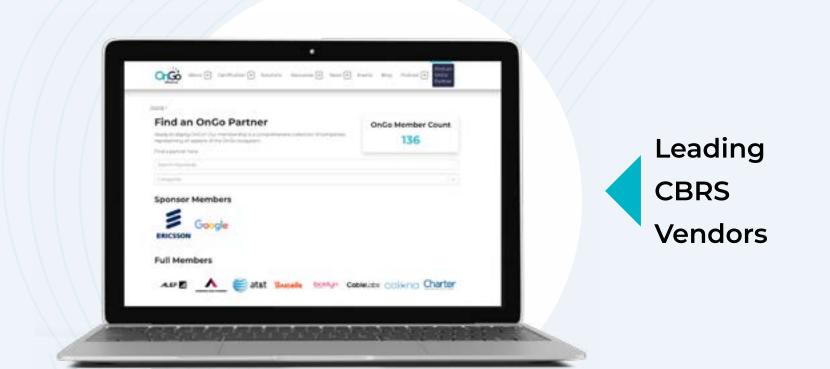
- ☑ Improved connectivity
- ☑ Yard truck monitoring

"The deployment was a significant milestone and has exceeded our expectations. With reliability no longer a concern, we've moved from firefighting mode to focusing on the strategic use cases that will further enhance operations."

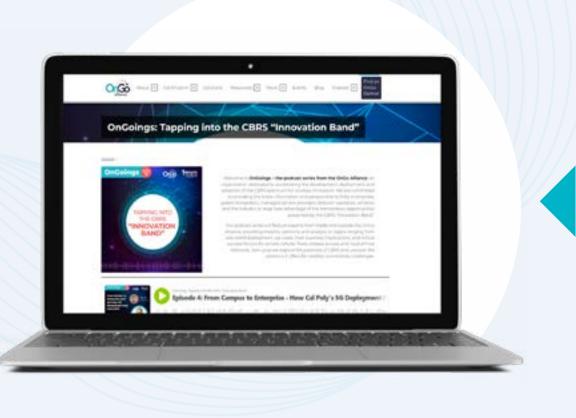
**Philip Styf**, Director of IT at Husky Terminal

More than 40% of jobs in the state of Washington relate to international trade.









Podcasts: Interviews with Notable CBRS
Users and Vendors







#### **About the OnGo Alliance**

The OnGo Alliance is an industry consortium that accelerates the development, commercialization, and adoption of wireless solutions in the 3.5 GHz Citizens Broadband Radio Service (CBRS), and evangelizes shared spectrum globally. Formerly the CBRS Alliance, this 90+ member group accelerates the buildout of effective and efficient CBRS networks, using 4G and 5G solutions. There are over 420,000 CBRS Access Points across the U.S. currently broadcasting wireless signals on the CBRS spectrum, via private and fixed wireless networks, spanning various sectors including enterprise IT, industrial IoT, smart cities, rural broadband, transportation, hospitality, retail, and real estate. The Alliance has also established a product certification program for OnGo equipment in the CBRS band ensuring multivendor interoperability. For more information, please visit <a href="https://www.ongoalliance.org">www.ongoalliance.org</a> and follow the OnGo Alliance on LinkedIn and Twitter.

Contact Us











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