



SECURE, RELIABLE NPN/PRIVATE NETWORK SOLUTIONS

USE CASE DRIVEN 4G AND 5G MULTI-PLATFORM NETWORKS

BEST-IN-CLASS PERFORMANCE AND RELIABILITY

Airspan Networks Holdings Inc. (NYSE American: MIMO) is a U.S.-based provider of multi-award-winning 4G and 5G software and hardware that supports cloud-native open architectures and boasts over one million cells deployed in the most cutting-edge tier one networks and vertical applications across the globe.



**A U.S. BASED
COMPANY**
850+ Employees in
15 Locations



**END-TO-END
SOLUTIONS**
Multiple Generations of
Award-Winning Products



**FULL PORTFOLIO
OF PRODUCTS**
Disruptive Technologies
Backed by Patents



**OVER 20 YEARS
OF EXPERIENCE**
Developing RAN
Hardware and Software

Rakuten



Telefonica



SoftBank

NEC



AWARDS AND RECOGNITIONS



EXCELLENCE IN
COMMERCIAL
DEPLOYMENT BY A
PRIVATE NETWORK
Small Cell Awards
2022



EXCELLENCE IN
COMMERCIAL
DEPLOYMENT BY A MOBILE
NETWORK OPERATOR
Small Cell Awards
2022



OUTSTANDING
CONTRIBUTION TO
NEW SMALL CELL
BUSINESS CASES
Small Cell Awards
2022



INNOVATION AWARD:
PRIVATE NETWORKS
Fierce Telecom
2021



INNOVATION AWARD:
DIGITAL DIVIDE (FWA)
Fierce Telecom
2021



BEST MOBILE
TECHNOLOGY
BREAKTHROUGH
GLOMO Awards
2018



EXCELLENCE IN
COMMERCIAL
DEPLOYMENT
Small Cell Awards
2019/2020/2021



EXCELLENCE IN
RESIDENTIAL
DEPLOYMENT
Small Cell Awards
2018



USE CASE
INNOVATION
5G Realised
2019/2020



INNOVATION
ACHIEVEMENT
CANTO
2018



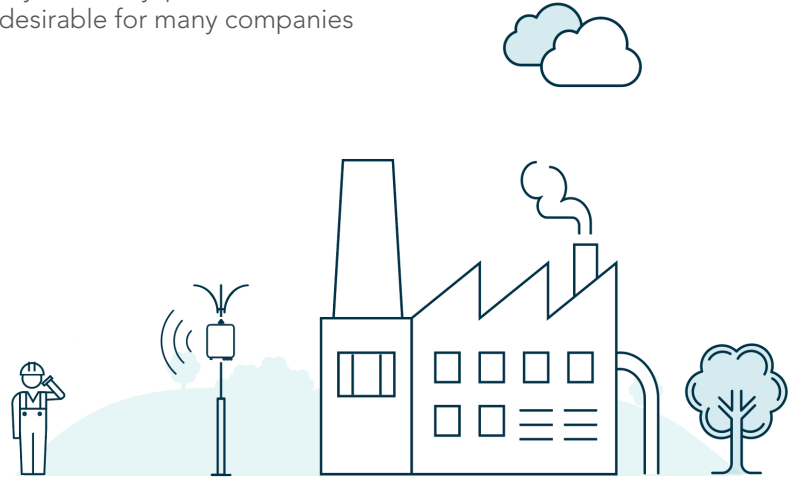
FIXED WIRELESS
BROADBAND
SOLUTION OF THE
YEAR
Mobile Breakthrough
2018



WIRELESS NETWORK
INNOVATION PRODUCT
OF THE YEAR
Compass Intelligence
2018

WHAT ARE PRIVATE NETWORKS?

Designed using 4G and 5G technology, non-public networks (NPN) or private networks provide connectivity to a defined set of private users in a specific indoor or outdoor area. The security, reliability, performance, and privacy of this type of network make it desirable for many companies and enterprises.



WHY PRIVATE NETWORKS?



Security and data control with full separation from wider public mobile networks and sensitive data located at customer premises



Access to services in locations not reachable by public networks—usually in indoors (where 80% of data is consumed), underground, or remote areas



Flexibility allows mobile networks to be used in dynamic environments where equipment needs to move, or be placed around fixed cabling (also provides lower TCO)



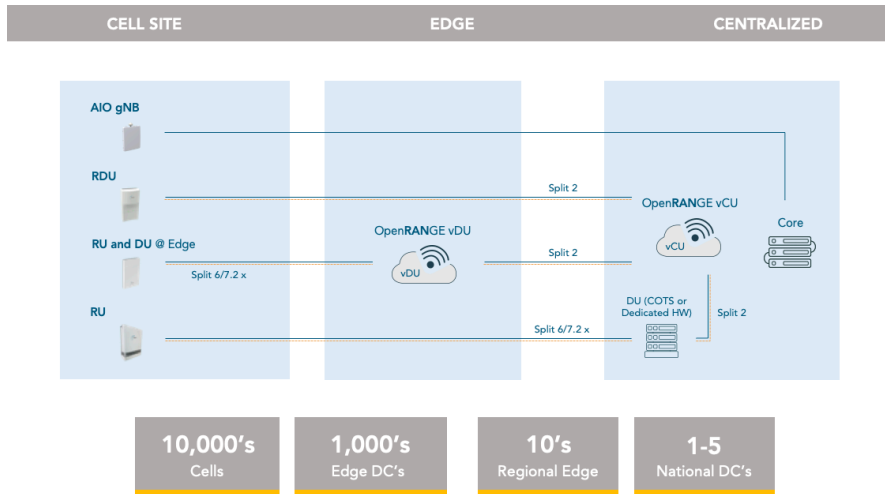
Improved QoS where license-exempt technologies, such as WiFi, cannot meet capacity, reliability, latency, failover, or throughput requirements



Customization of the network parameters can be configured at anytime to meet an organization's exact specifications

NO SILVER BULLET: SPLIT ARCHITECTURE OPTIONS

- Split architecture options, such as 2, 6, 7.2, or all-in-one gNB enable multi-vendor operation to future-proof TCO
- Based on open interfaces such as O-RAN, Small Cell Forum (nFAPI), 3GPP F1, and ONAP orchestration
- Breaks the chains of traditional supply chains, revolutionizing the way networks are built today



A PERFECT FIT FOR VERTICAL MARKET NEEDS



Airspan's private network solutions significantly improve productivity and responsiveness, which leads to increased revenue and cost savings.

What challenges do vertical markets face?

- Connectivity
- Real-Time Analysis
- Remote Configuration
- Latency
- Reliability
- Security
- Energy Efficiency

What do vertical markets need?

- Flexibility
- Efficiency
- Agility
- Low Cost
- Sustainability
- Safety
- Security

What can Airspan's private networks provide?

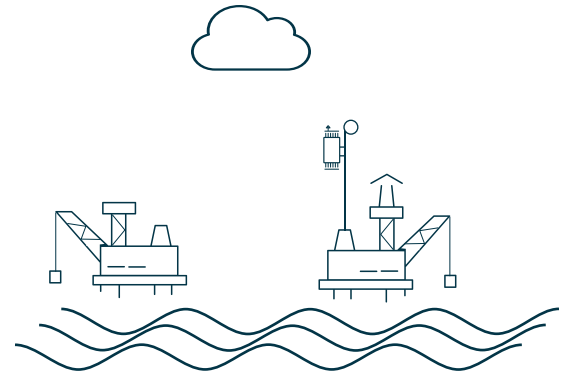
- Enhanced Performance
- Interoperability
- Higher Spectrum Efficiency
- Increased Responsiveness
- Increased Security
- Accelerated Innovation Through Lower Costs

IDEAL FOR MANY INDUSTRIES

Whether it's high capacity, high security, or connecting a high number of critical IoT devices, deploying a local private network will ensure your operations run successfully, regardless of where it's located (indoor, outdoor, underground, over water, etc.).

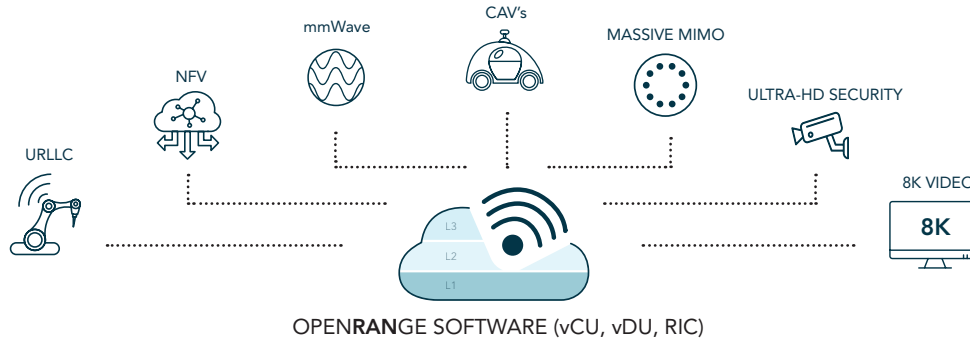
PORTS
LOGISTICS
AIRPORTS
POWER PLANTS
MANUFACTURERS
EVENT VENUES
FULFILLMENT CENTERS
NEUTRAL HOST OPERATORS
CAMPUS NETWORKS
MINING

PUBLIC SAFETY
GOVERNMENT AGENCIES
SMART CITIES
EMERGENCY SERVICES
UTILITY COMPANIES
RAILWAYS
HEALTHCARE
EDUCATION
TRANSPORTATION
AND MORE!



OPENRANGE SOFTWARE

With over 20 years of experience on all three layers of radio software, and over 1,000,000 cells deployed, Airspan's OpenRANGE software is an evolution of our field-proven experience from LTE software to a containerized, cloud-native, disaggregated architecture delivering innovation, scalability, high-service availability, and fast time-to-market. It is based on open technical specifications from 3GPP, O-RAN Alliance, and Small Cell Forum.



5G HARDWARE SOLUTIONS



Air5G 7200

- Outdoor
- RDU
- mmWave
- MU-MIMO
- Integrated Antenna Array



AirSpeed

- Outdoor
- Open RAN or All-in-One
- Sub-6 GHz
- Single or Dual Sector
- Single or Dual Carrier



AirVelocity

- Indoor
- RU
- Sub-6 GHz/mmWave
- Integrated or External Antenna Array

4G HARDWARE SOLUTIONS



AirHarmony

- Outdoor
- Mini Macro
- Long Range
- Dual Sector/
Dual Carrier



AirSpeed

- Outdoor
- Base Station
- Dual Sector
- Integrated Backhaul
- Smart Beam Antennas



AirVelocity

- Indoor
- Base Station
- Wireline Backhaul
- Wall/Ceiling Mount

THE AIRSPAN ADVANTAGE



100% PURE PLAY WIRELESS focus with an end-to-end portfolio of award-winning products



BASED ON OPEN TECHNICAL SPECIFICATIONS from 3GPP, O-RAN Alliance, and Small Cell Forum



CUSTOM SOLUTIONS address diverse needs of diverse customers



PRACTICALLY ZERO TIME TO MARKET to get up and running



U.S.-BASED with over 20 years of HW/SW experience and over one million cells deployed



CUSTOMER USE CASE

Current inflight connectivity solutions have high installation and service costs, and even higher latency. They simply do not deliver the performance required to satisfy current demands. While satellite systems are the only method to provide connectivity for long, overwater routes, they are inherently limited in capacity over dense terminal areas. The Air5G air-to-ground (A2G) solution leverages a high-performance, 5G standalone system using state-of-the-art, vRAN base station technology and massive MIMO antenna arrays. Utilizing advanced beamforming and tracking techniques, the system is capable of communicating to an aircraft traveling in excess of 1200 km/h, at a maximum range of 300 km at enhanced mobile broadband speeds. The system is built on the same technology as the Air5G OpenRANGE product line, which is based on 3GPP, O-RAN standards. Gogo completed a seven-tower 5G testbed as part of the deployment of its nationwide 5G air-to-ground (A2G) network at the end of 2021. It is set to go live in 2022.



CUSTOMER USE CASE

Airspan is part of the Dense Air-led project for connected autonomous vehicles (CAV's) that is hosted at UTAC, formerly known as Millbrook Proving Ground. It is a unique development program for 5G technology and is based on small cells that operate on a neutral host basis, in a dense area with ultra-fast speeds.

Other Partners in the consortium include Telefonica/O2, Atkins, Blu Wireless, Real Wireless, the University of Surrey's 5G Innovation Centre, and the R&D arm of motorsport racing team McLaren.





CUSTOMER USE CASE

Offering higher capacity, increased coverage, and better security, Airspan's private networks are ideal for businesses looking for a faster, more reliable and secure network. Small footprint indoor and outdoor eNodeB's provide constant connectivity and ensures seamless wireless connections in high-demand environments that utilize technologies such as autonomous robots, augmented reality, internet of things (IoT), AI, machine learning, and more. Minimal latency allows real-time communication to boost production and drive growth.

colt

umlaur

COCOS

Department for
Digital, Culture,
Media & Sport

ICAIDE

5G-encod

sificom
we enable communication

Microsoft

Cologne Bonn Airport

Hewlett Packard
Enterprise

NTT



CUSTOMER USE CASE

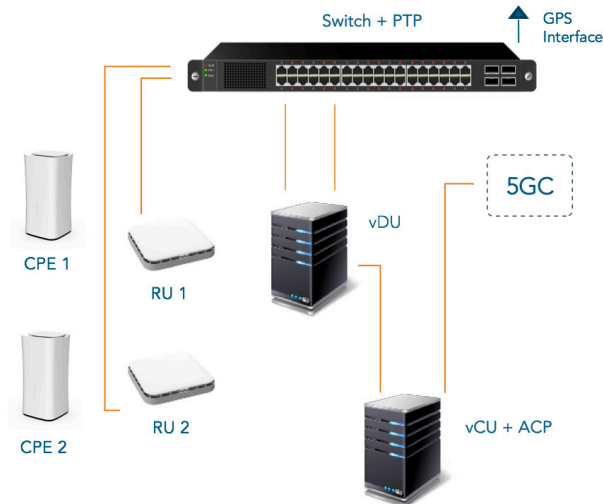
Traditionally, WiFi has been the transport of choice for all wireless communication in healthcare. With heavy reliance on handheld devices recently, there has been a decline in adoption, as WiFi fails to perform well. We have seen smart devices traded out for walkie talkies and pagers just to get as close as possible to 100% message delivery. The better and more reliable solution is NPN or private networks. In partnership with a well-known broadband systems integrator, Airspan delivered a secure end-to-end, carrier class, low latency, voice-first wireless network designed to increase staff efficiency and real-time response to critical patient care at multiple facilities.

GET STARTED WITH THE STARTER KIT

Experience it to believe it. Airspan's NPN/private network, end-to-end, 5G, SA, network in a box makes it easy to get started. This complete kit will get you off the ground to experience the full benefits of this type of network. **Get started today by contacting sales@airspan.com.**



- ✓ Indoor RU's
- ✓ Full Open RAN SW (Pre-Installed):
 - Air5G DU (vDU)
 - Air5G CU (vCU-UP + vCU-CP)
 - Airspan Control Platform (ACP)
- ✓ Servers to Host Open RAN SW
- ✓ Switch + PTP
- ✓ Indoor 5G CPE + SIM Cards
- Optional: 5G SA



For more information about our any of products or solutions, please visit airspan.com or contact sales@airspan.com to get in touch with a representative from one of our offices.





A Member of

