

AIRSPAN NETWORKS BROCHURE

Pure Play Wireless for Next-Gen Networks

Unified Connectivity:
Blending Public Reach with
Private Network Expertise

Airspan



TEAM

350 Employees
Worldwide



TRACK RECORD

Proven Tier 1
Mass Deployment



EXPERIENCE

20+ Years of Software &
Hardware Experience



MISSION

Public, Private
Networks and
Air-To-Ground



INNOVATION

Carrier Class,
Patent Supported



AWARD WINNING

5 Generations of
Radio Products



Positioned For 5G Innovation And Success

Airspan Networks Holdings Inc is a U.S.-based provider of groundbreaking, disruptive software and hardware for 5G networks, and a pioneer in end-to-end Open RAN solutions. With over one million cells shipped to 1,000 customers in more than 100 countries, Airspan has global scale.

Airspan's innovative approach facilitates a phased 5G deployment for customers, matching the pace of evolving user and application demands. Our robust, powerful, standards-compliant solutions offer advanced control and management, with the versatility to integrate via open APIs across diverse hardware and cloud platforms.

Airspan is Involved in Each of These Markets with Compelling Use Cases

Mobile Network Operators



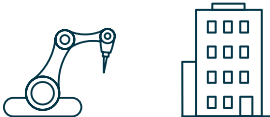
Over 1,000,000
Base Stations Shipped Globally

Rakuten


Telefonica **Jio** **T Mobile**

TURKCELL  **SoftBank**

Private Networks

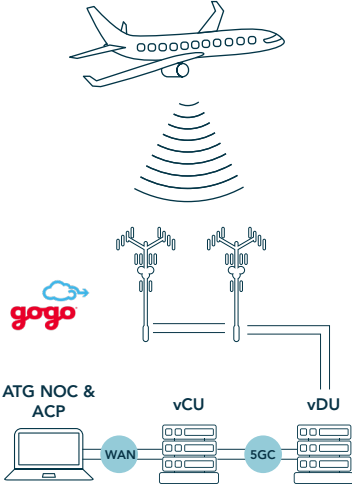


Industry 4.0 **Neutral Host Networks**



5G FWA mmWave **Utilities**

Air-To-Ground



gogo

ATG NOC & ACP **vCU** **vDU**

WAN **5GC**

Awards and Recognitions



OUTSTANDING CONTRIBUTION TO EMERGING TECHNOLOGY, ARCHITECTURE & OPEN NETWORKS



ONGO NEUTRAL HOST ARCHITECTURE/ SOLUTION: AWARDED TO CTS (WITH AIRSPAN, DRUID)



JUDGE'S CHOICE: AWARDED TO BEARCOM (WITH ATHONET, AIRSPAN, AND BEC)



EXCELLENCE IN COMMERCIAL DEPLOYMENT BY A PRIVATE NETWORK



EXCELLENCE IN COMMERCIAL DEPLOYMENT BY A MOBILE NETWORK OPERATOR



OUTSTANDING CONTRIBUTION TO NEW SMALL CELL BUSINESS CASES



2X INNOVATION AWARDS WINNER: DIGITAL DIVIDE (FWA) & PRIVATE NETWORKS



BEST MOBILE TECHNOLOGY BREAKTHROUGH



EXCELLENCE IN COMMERCIAL DEPLOYMENT Open RAN



EXCELLENCE IN RESIDENTIAL DEPLOYMENT Urban



EXCELLENCE IN RESIDENTIAL DEPLOYMENT Urban



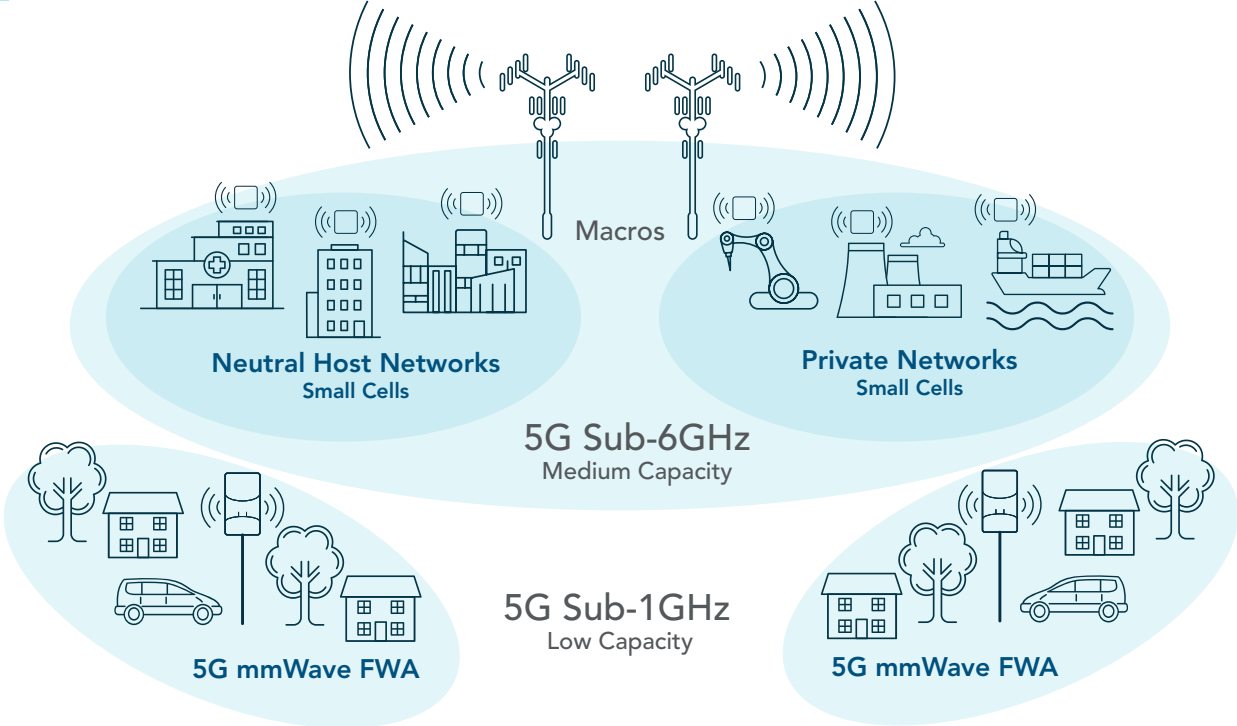
EXCELLENCE IN RESIDENTIAL DEPLOYMENT Residential



Public Networks

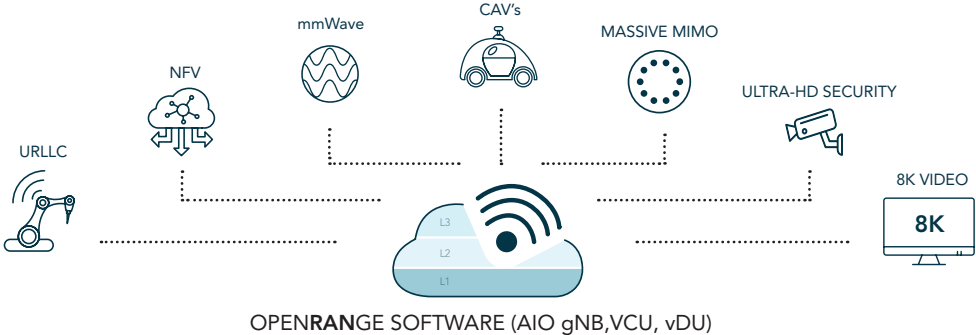
Public Networks Evolved:
Merging Macro Coverage with
Dense, Efficient Small Cells.

Macro Meets Small Cells Densification



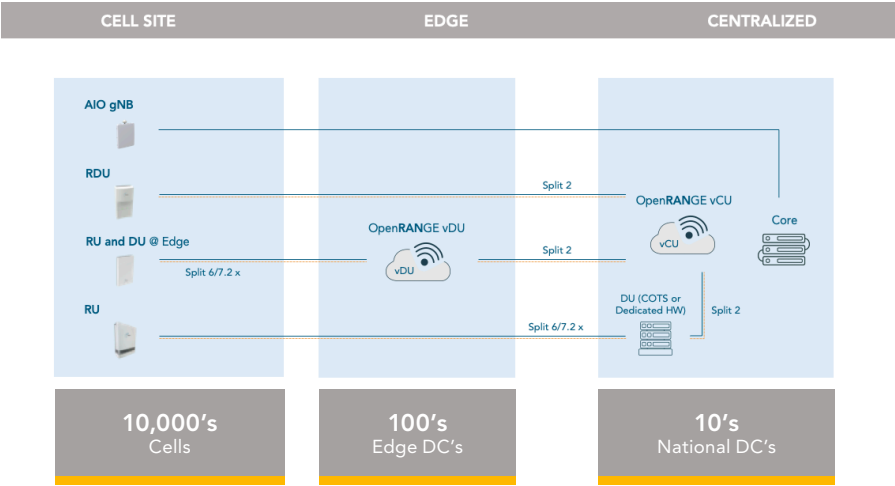
OpenRANGE Software

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, 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. Airspan's modular approach allows software to be embedded in a single radio (All-in-One) or disaggregated in vCU and vDU.



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



Reliance Jio



0 to 100 Million LTE Subscribers in 180 Days

- The biggest operator in India and 3rd in the world with over 380M subscribers
- Nationwide deployment of outdoor and indoor LTE base stations
- Fixed and mobile services data + IPTV (eMBMS) + VoLTE (IMS)
- Roaming for mobile users
- Over 80,000 Outdoor eNodeBs deployed in urban and rural areas
- Over 110,000 Indoor eNodeBs deployed in urban areas
- Over 30,000 wireless backhaul links
- Winner of 2020 SCF Award for India's largest small cell – EXCELLENCE IN COMMERCIAL DEPLOYMENT: URBAN



Jio is the world's fastest growing mobile operator, acquiring 100 million LTE subscribers in record time and experiencing an unprecedented rate of data adoption and usage. Jio is partnering with Airspan to deploy a network of base stations. The design provides a strong path towards 5G with the same tools and building blocks, allowing a further quantum leap in capacity.

Mathew Oommen, President, Reliance JIO



Rakuten Mobile in Japan

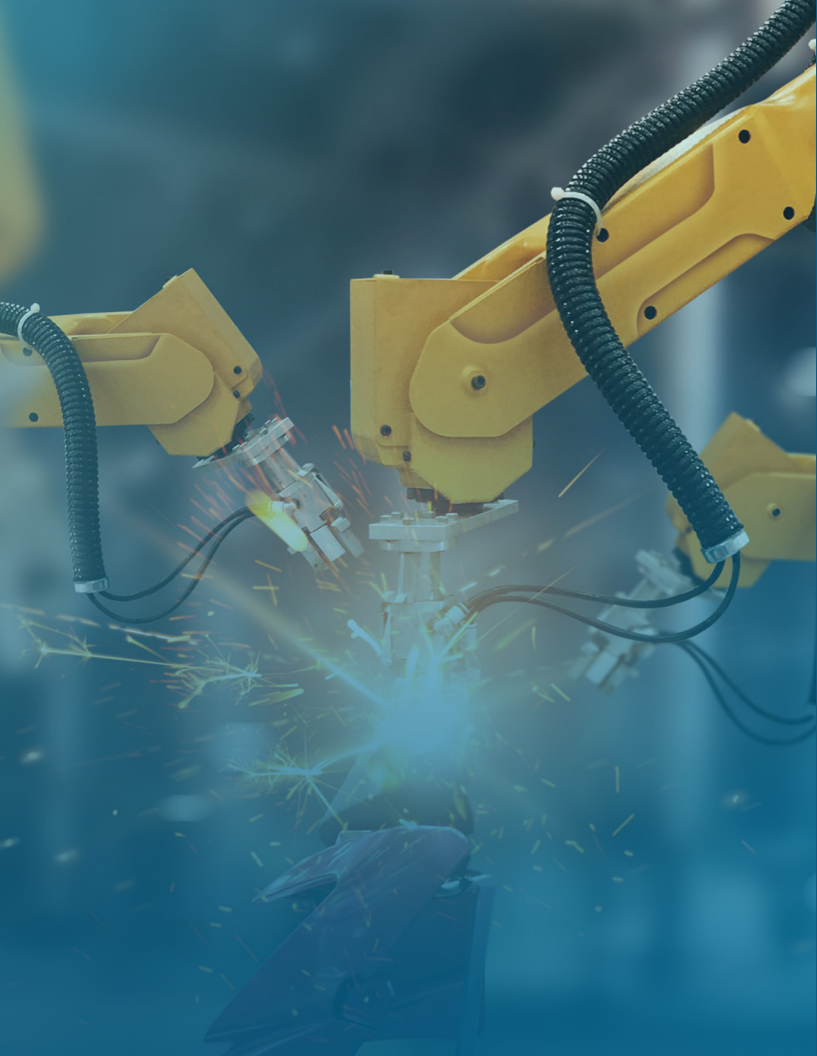
Airspan's Open RAN platforms provide Rakuten Mobile with the flexibility to disrupt the economics of traditional network operators and lay the foundation for transformational 5G architectures. With 50,000 base stations under deployment for Rakuten, Airspan brings its proven disruptive economics to the fully virtualized Rakuten Mobile network.

Rakuten



We are thrilled to partner with Airspan to build Japan's newest mobile network. Their innovative 4G and 5G solutions and form factor will allow Rakuten Mobile to rapidly scale our deployment.

Tareq Amin, Chief Technology Officer of Rakuten Mobile



Secure Private Networks

High-Performance
Plug-and-Play Solutions

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

Private Networks Key Markets

Industry 4.0



Airspan, along with its partners, has successfully deployed hundreds of Private Networks, providing comprehensive end-to-end solutions that simplify deployment and address practical use cases beyond the reach of existing technologies.

Neutral Host Networks



Recognizing the rising demand for indoor coverage, Airspan empowers property owners with control through Neutral Host Networks. We've aligned with leading system integrators, certified by top-tier carriers, to facilitate seamless access to public networks.

5G FWA mmWave



Airspan tackles the imminent saturation of sub-6GHz bands with pioneering mmWave spectrum solutions. Our technology surges past bandwidth constraints and coverage limitations, delivering a fiber-like speed experience to satisfy the bandwidth needs of tomorrow.

Utilities



Our end-to-end modular approach is crafted with Utilities in mind, offering extensive coverage in critical sub-1GHz bands. Featuring a smart, compact design, our solutions are effortlessly deployable and seamlessly managed via our cloud platform.

5G Global Partners





Airports

Solutions for airports require ubiquitous, reliable, low-latency, high-speed, and secure connectivity to digitize and automate operations, assist airlines and other partners, and offer a tailored customer experience.

The private 5G network delivered the required connectivity to support many existing and new use cases in the terminals, ramp, airfield, and cargo areas. The highest priority use cases include: assets & baggage tracking, security & safety, check-in & boarding.

Allowing increased control over the network architecture, coverage, performance, security, and technology evolution with private 5G networks than public 5G networks. Allowing for more efficiency handling business-critical applications with a dedicated spectrum.



In-Building Coverage

This Private Network solution will improve the hotel guest experience by providing excellent indoor and outdoor high-speed voice and data coverage and hotspot capabilities on property, including connectivity to Public Networks from main carriers. With the exponential growth of video conferencing, 5G eliminates the typical problems related to virtual meetings. Additionally, hotel operators can streamline operations with rapid communication between different systems. The new technology allows for faster automated check-in and check-out procedures for Hilton Honors loyalty members, which cuts labor costs and eliminates lines that are irritating for guests. With 5G, all systems are interconnected and communicate seamlessly in real-time.



Air-To-Ground (ATG)

Cellular Technology Going Beyond
3GPP Standards

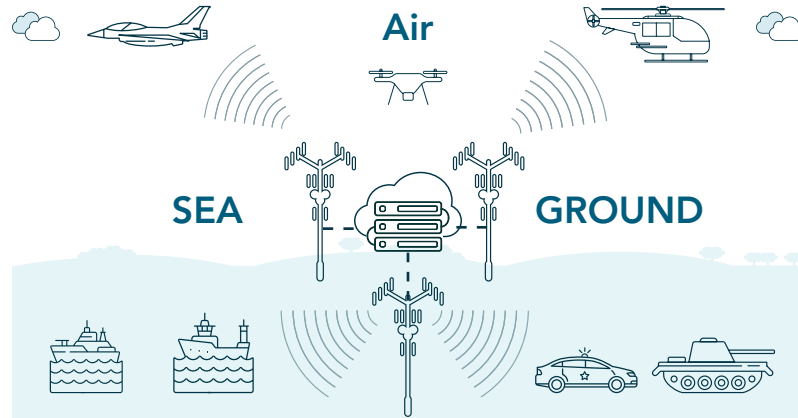
Air-To-Ground (ATG)

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 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.

Air to Ground (ATG) can be replicated to similar markets around the world: Connectivity to private and commercial airplanes.

A2G goes beyond the standards and creates a tailored solution to solve problems like doppler compensation for airplane speed and cell range extension.

This R&D capability proves Airspan can provide similar innovation for similar markets like DoD and Public Safety.



"THE WORLD'S FASTEST DEPLOYED
OUTDOOR SMALL CELL"



4G/5G Solutions

Deliver High-Speed Data and
Coverage Where it's Needed

4G/5G Solutions

Airspan offers a flexible and modular 4G and 5G portfolio, including software (CU, DU, ACP) and hardware (RU) supporting several splits including all-in-one gNB, leveraging proven experience in deployment and operation automation of dense networks. Airspan's indoor and outdoor solutions simplify deployments and offers disruptive performance and innovation. Major challenges for the traditional business model have included speed of deployment, site acquisition, and excessive operating expenses. Airspan's innovations have changed the game and put these challenges to rest.



Sub-6 GHz



mmWAVE



CBRS



AIO



vRAN

2024 New Products

MNOs and Utilities



AiRU 2720

- 4G
- Dual-band B20 + B28
- Single-band (B28, B8, B31, B72, B87)
- 2T4R, 2x 40W
- Split 7.2 RU

Private Networks



AirSpeed 2920

- 5G
- Bands: n77, n78, n48, n79, n41
- 4T4R, 4 x 15W
- AIO

mmWave FWA



Air5G 9200 / 10200

- 5G
- Bands: n257, n258, n259, n260, n261
- 256/512 Antennas 61/64 dBm EIRP
- AIO

4G Solutions



AirHarmony

- Outdoor
- Mini Macro
- Wireline Backhaul
- Dual Carrier w/ 2CA
- Single or Dual Sector
- Supports CBRS
- Up to 2 x 20 W
- Up to 300 Mbps



AirSpeed

- Outdoor
- Pico Cell
- Wireline Backhaul
- Dual Carrier w/ 2CA
- Single or Dual Sector
- Supports CBRS
- Up to 4 x 5 W
- Up to 300 Mbps



AirStrand

- Outdoor
- Pico Cell (Strand Mount)
- Fiber/DOCSIS/
GPON Backhaul
- Dual Carrier w/ 2CA
- Single or Dual Sector
- Supports CBRS
- Up to 4 x 2 W
- Up to 300 Mbps



AirVelocity

- Indoor
- Small Cell
- 4x4 Antenna Array
- Dual Carrier w/ 2CA
- Single or Dual Carrier
- Supports CBRS
- Up to 4 x 320 mW
- Up to 2 x 150 Mbps

5G Solutions



Air5G 7200

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



AirSpeed

- Outdoor
- AIO gNodeB or vRAN
- Sub-6 GHz
- Single or Dual Sector
- Single or Dual Carrier
- Supports CBRS



AirStrand

- Outdoor
- AIO gNodeB or vRAN
- Strand Mount
- DOCSIS Backhaul
- Dual Sector
- Supports CBRS



AirVelocity

- Indoor
- AIO gNodeB or vRAN
- RU
- Sub-6 GHz mmWave
- Integrated or External Antenna Array
- Supports CBRS

Proven End-to-End CBRS Leaders

Airspan's acclaimed 4G and 5G offerings are complemented by our end-to-end CBRS solutions, critical for Neutral Host Networks and both fixed and mobile operators. These interoperable products afford flexibility, integrating seamlessly into the CBRS ecosystem for diverse business needs. CBRS opens avenues for spectrum expansion, enabling new business applications and the establishment of cost-effective private networks.



AirSpeed
Pico Cell



AirStrand
Pico Cell



AirVelocity
Indoor Small Cell



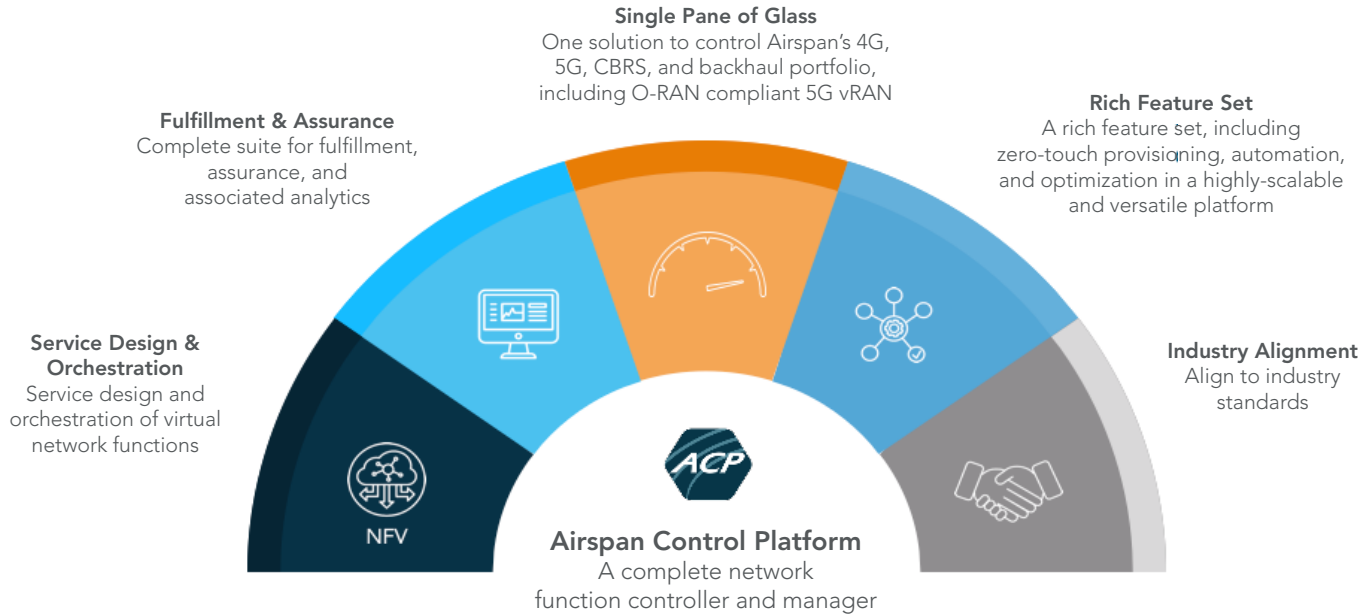
AirSpot
CPE



Airspan Control Platform (ACP)

A Virtualized and Complete
Network Function Controller
and Manager

ACP Overview



ACP – 5G Architecture

Airspan Control Platform (ACP) is based on several application modules for flexible operation and scalability across various customer scenarios.

Wireless Domain Controller

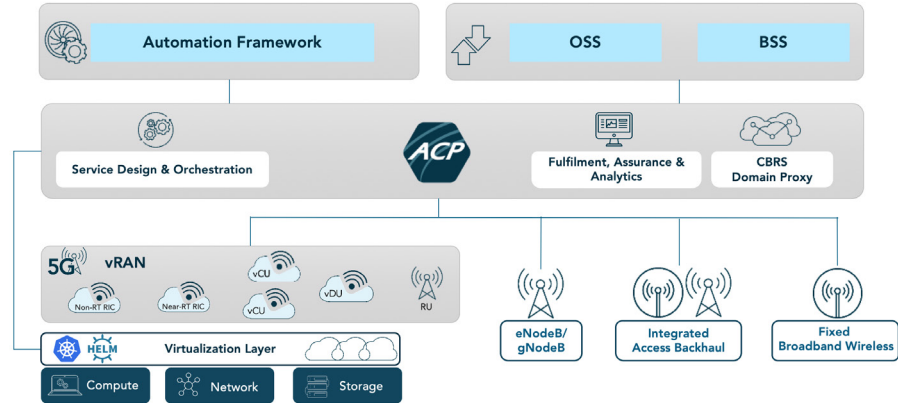
ACP's WDC is an SDN-R compliant controller that runs the FCAPS capabilities of Airspan's vRAN solution.

CBRS Domain Proxy

ACP's CBRS DP is a WInnForum compliant solution for managing grants and authorization with SAS—a vital component of CBRS solutions.

Orchestration

ACP's orchestration is a vRAN dedicated orchestration layer to promote full life-cycle management of Airspan's vRAN solution.



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.



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