ERA®

THE ALL-DIGITAL WIRELESS SOLUTION POWERING AIRPORTS, RAIL, AND TRANSIT SYSTEMS

ANDREW®
an Amphenol company

TRANSPORTATION RUNS ON REAL-TIME CONNECTIVITY

Every moment in a transportation hub depends on real-time coordination, mobility, and uninterrupted digital awareness. Passengers expect instant travel updates and intuitive movement from curb to gate, platform, or terminal. Operational teams must stay synchronized across concourses, tunnels, airfields, rail lines, and back-of-house zones. Safety systems, sensors, automation, and alerts rely on consistent mobility to keep people moving securely and efficiently.

Reliable end-to-end cellular coverage is now transportation infrastructure—every bit as essential as signaling, public-safety systems, and power.

Why connectivity matters for passenger experience & operational performance

Passenger safety

Reliable 4G/5G connectivity enables safety alerts, emergency notifications, passenger-assistance apps, and public-safety communications to reach the right teams instantly. Consistent coverage in concourses, platforms, below-grade areas, and operations spaces supports faster, more coordinated responses during routine operations and emergencies.

Travel experience

Passengers expect real-time updates, intuitive wayfinding, mobile ticketing, digital credentials, and uninterrupted app performance from curb to gate, platform, or terminal. Reliable cellular connectivity reduces confusion, shortens queues, speeds movement, and improves overall satisfaction—especially during delays and peak periods.

Staff efficiency & operational coordination

Staff experience fewer dropped calls, smoother handoffs, and more efficient coordination across terminals, platforms, airfield operations, rail yards, and underground pathways—reducing delays, errors, and workflow friction while keeping people and operations moving.

ERA performance in hard-to-reach areas

The ERA DAS is engineered to enable 4G/5G in the hardest-to-reach areas of transportation environments. Its digital transport and flexible access-node design deliver reliable coverage where Wi-Fi and legacy DAS struggle—including reinforced terminal structures, underground platforms, supporting tunnel segments, and multi-level parking facilities.

Reliable connectivity across the entire transportation system strengthens safety, reduces delays, and improves overall operational performance.

PASSENGER FLOW & OPERATIONAL EFFICIENCY

5G-enabled workflows supporting safer, more efficient transit systems

Transportation hubs depend on mobile workflows requiring high bandwidth, low latency, and reliable handoffs:

- Real-time service updates and gate/track changes
- Passenger flow monitoring and digital queue management
- Mobile ticketing, digital credentials, and smart fare systems
- Ground operations, baggage handling, and logistics coordination
- AI-assisted inspections, video analytics, and automation
- AR navigation and real-time wayfinding
- Staff voice, messaging, alarms, and alerts with seamless mobility
- IoT sensors for escalators, elevators, HVAC, and energy systems

The ERA® DAS preserves signal integrity end-to-end, providing consistent mobility and real-time performance across terminals, concourses, platforms, and supporting underground areas—powering the workflows that keep transportation systems safe, efficient, and on schedule.

CONNECTED PASSENGER EXPERIENCE

5G enhances every step of the travel journey

Transportation hubs rely on mobility and digital tools to improve passenger flow and engagement:

- AR wayfinding and intuitive digital navigation
- Real-time train/flight/bus updates delivered instantly
- Digital engagement that offloads passenger traffic from Wi-Fi
- Mobile ticketing, boarding passes, and digital fare systems
- Streaming, browsing, and passenger communication apps

Reliable connectivity improves passenger satisfaction, reduces delays, and enhances overall travel experience.

SAFETY, SECURITY & SMART FACILITIES

Reliable 5G supporting automation, safety, and efficiency

A rising ecosystem of mobile and connected systems depends on end-to-end coverage:

- Autonomous mobile robots (cleaning, delivery, inspection)
- Staff duress and safety alert systems
- System-wide emergency communication and coordination
- Real-time video analytics and access control
- Digital twins and predictive maintenance
- Ground operations, baggage systems, and logistics workflows

These systems must function everywhere—including reinforced structures, below-grade stations, and back-of-house operational spaces.

Why legacy solutions fall short

Legacy analog DAS, RF-fed DAS, Wi-Fi-only designs, and standalone private networks were not built to support the full set of modern transportation and operational demands across extensive transit facilities:

- High-density 5G performance (bandwidth, latency, device density)
- Real-time mobility with seamless, deterministic handoffs
- High-density IoT across terminals, platforms, and operations areas
- Automation and robotics requiring predictable, system-wide coverage
- Neutral-host, all-operator support
- On-premises or off-premises (centralized) operator integration
- Performance in reinforced or below-grade environments
- Reduced power, cooling, and environmental impact

Wi-Fi and private networks both play important roles, but neither alone can deliver the reliability, multi-operator coverage, and mobility transportation systems require.

Modern transportation needs a digital, 5G-native DAS engineered for safety, reliability, and growth—working in concert with other wireless solutions.

What makes the ERA platform different

- All-digital O-RAN + CPRI architecture
- True neutral-host for all carriers
- Designed for terminals, platforms, and below-grade environments
- 50%+ lower power and cooling
- IT-aligned, software-driven operations
- Flexible access-node placement for any transportation layout

Wi-Fi, private networks, and the ERA platform: how they work together

Wi-Fi supports passenger browsing, airport/station apps, and high-throughput workflows, but cannot replace multi-operator mobility for operations and public safety.

Private Networks enable localized wireless applications for logistics, automation, video, and IoT, but do not provide a universal neutral-host layer.

The ERA platform delivers system-wide, multi-operator 4G/5G coverage for passengers, staff, operations, and public safety.

Together, these technologies form a resilient, multi-layer wireless foundation for modern transportation systems.

Introducing the ERA digital, 5G-native DAS for transportation

The ERA digital platform delivers consistent, system-wide 4G/5G connectivity through a fully digital architecture that transports signals over fiber or CAT cabling and distributes them through low-profile antennas across terminals, concourses, platforms, and supporting underground areas.

Aligned with modern O-RAN and CPRI interfaces, the ERA system seamlessly integrates with both on-premises and off-premises operator deployments, reducing the need for large RF rooms and simplifying multi-operator coordination.

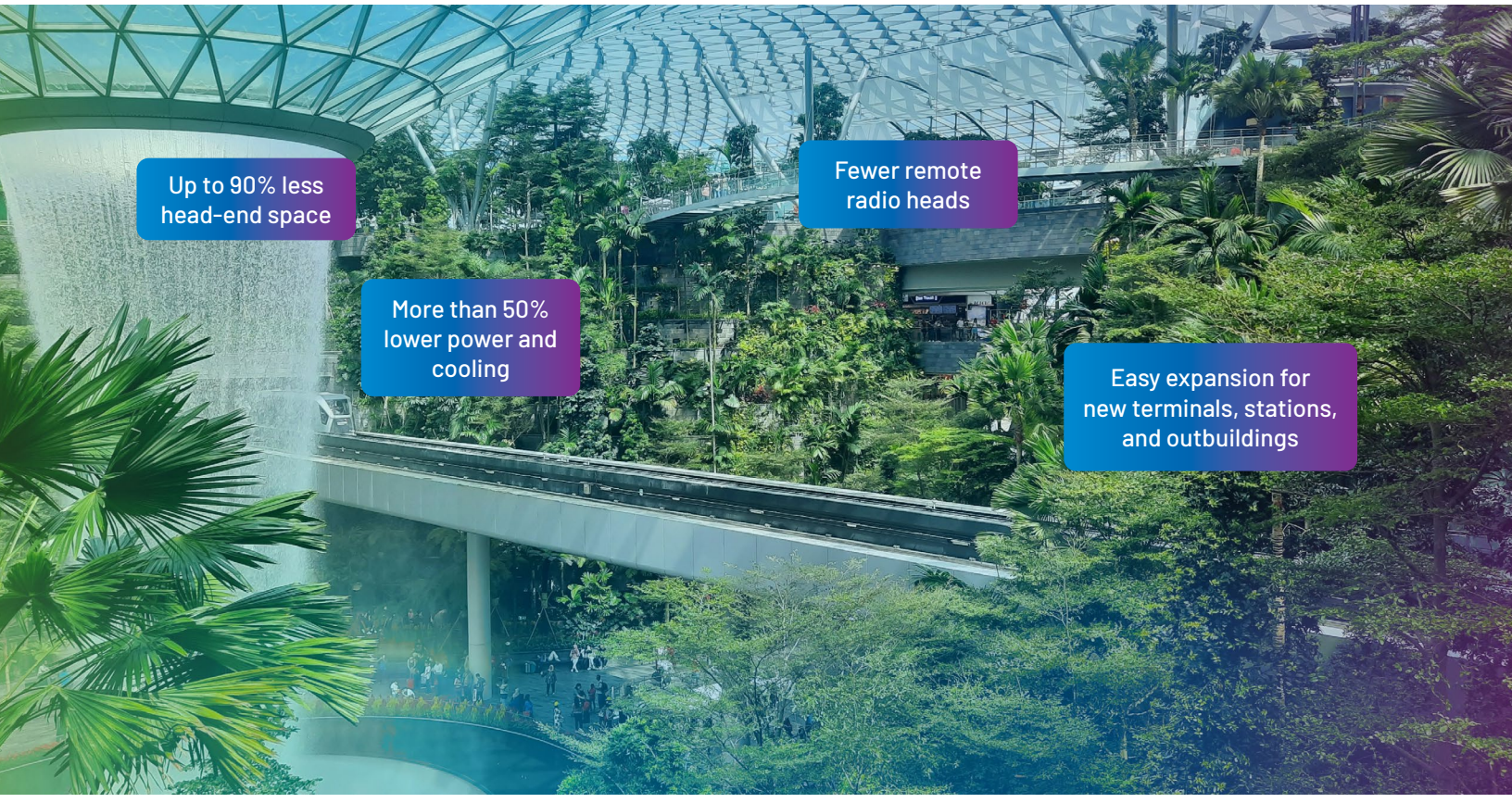
The ERA solution provides reliable coverage in terminals, platforms, baggage handling areas, ground operations zones, service corridors, stairwells, parking structures, and other challenging transportation environments.

Sustainable and adaptive

The ERA architecture reduces head-end footprint and power consumption while enabling flexible access-node placement throughout transportation facilities.

Neutral-host support

The ERA platform supports all mobile network operators simultaneously, providing universal connectivity for passengers, staff, operations, and public safety.



SCALABLE FLEXIBILITY

- All-digital, IT-aligned DAS that scales across terminals, stations, and multi-building transportation campuses
- One platform for public cellular, private networks, IoT, and public safety
- True neutral-host architecture with modular expansion
- Built to support new operators, new bands, and new technologies as they emerge

DIGITAL PERFORMANCE

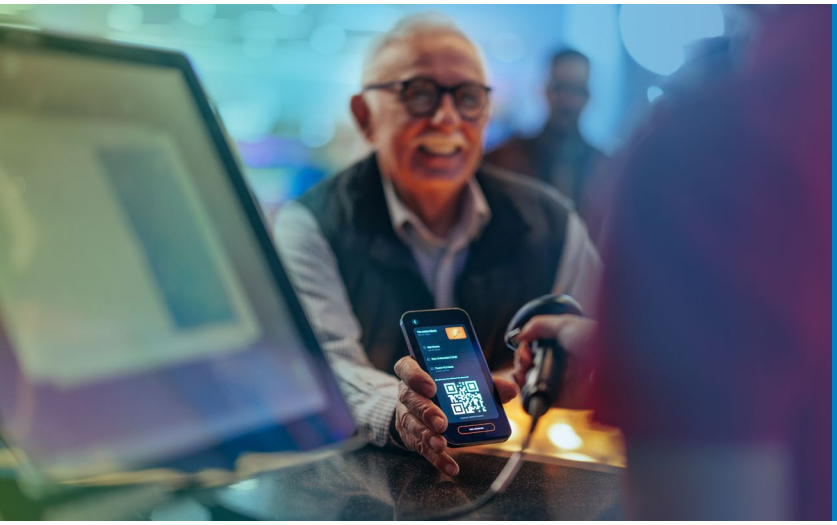
- O-RAN + CPRI interfaces simplify operator onboarding
- End-to-end digital architecture improves reliability and mobility
- Consistent, low-latency 5G performance for operational workflows

OPTIMIZED OPERATIONS

- Software-driven deployment with automated configuration
- Centralized visibility, monitoring, and diagnostics
- Robust cybersecurity — delivers secure, resilient, and compliant operations
- Faster deployment with minimal disruption — ideal for phased construction and expansion

SUSTAINABLE INNOVATION

- Up to 90% less head-end space and 50%+ lower energy/cooling use
- Lower cabling and material footprint
- Open, software-defined architecture aligned with O-RAN evolution

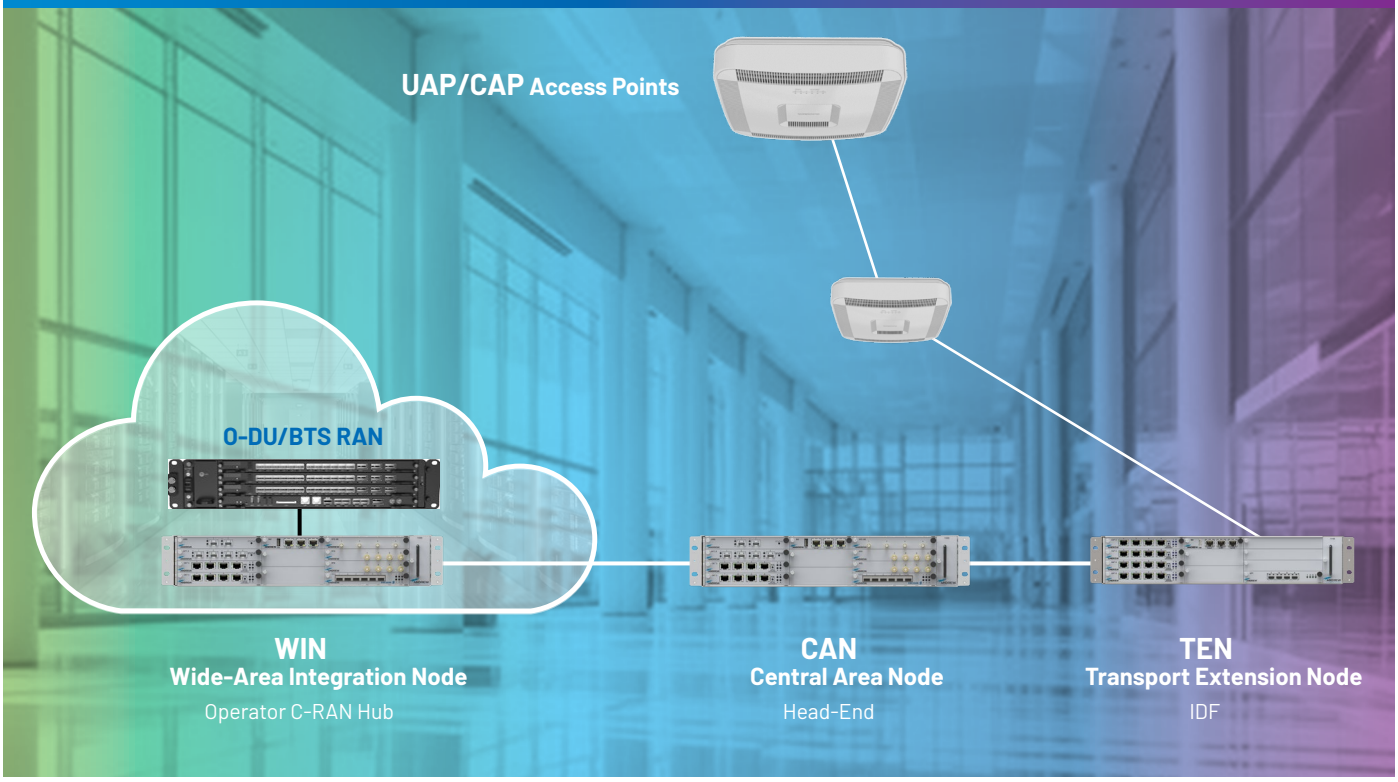


Trusted in complex transportation environments

ERA DAS is deployed across airports, rail systems, and transit facilities worldwide, supporting:

- Large international airport terminals
- Regional and commuter airports
- Major rail stations and concourses
- Subway and metro stations
- Supporting tunnel environments
- Ground operations and logistics zones
- Multi-building transportation campuses
- Intermodal hubs and passenger facilities

ERA COMPONENTS — COMPACT, EFFICIENT, READY FOR GROWTH



Wide-Area Integration Node (WIN)

Provides MNO integration for distributed or remote buildings.

Centralized Access Node (CAN)

Connects to mobile operators via digital O-RAN or CPRI interfaces; digitizes and distributes baseband signals over fiber or CAT cabling.

Transport Extension Nodes (TEN)

Extend digital transport through large or complex transportation facilities without signal degradation or added infrastructure.

Access Points (APs)

Low-, mid-, and high-power UAP and CAP models convert digital signals to RF for over-the-air delivery, supporting diverse transportation layouts and multi-band operation.

AIMOS Management Software

Provides centralized visibility, automated configuration and fault management, and integration with third-party systems to streamline operations.

Empowering transportation systems with a future-ready digital infrastructure

The ERA digital platform enables transportation operators to modernize with confidence. Its 5G-native, all-digital architecture strengthens mission-critical connectivity while preparing transportation networks for the next decade—from automation and IoT to advanced transit operations and future RAN evolution.

With the ERA platform, transportation hubs gain:

- Safer environments for passengers and staff through reliable, end-to-end mobility
- Improved staff efficiency with fewer dropped calls and smoother workflows
- Higher throughput and predictable passenger flow supported by consistent connectivity
- Universal 4G/5G coverage for all carriers on a true neutral-host foundation
- Lower power, cooling, space, and lifecycle cost
- A scalable platform that expands easily as facilities grow

The ERA all-digital platform is more than a DAS. It is the foundation for a connected, safe, efficient, and future-ready transportation system—engineered by ANDREW®.

Since 1937, ANDREW, an Amphenol company, has driven the evolution of wireless technology. Trusted by mobile network operators and enterprises globally, we work closely with our customers to deliver innovative solutions that enhance connectivity experiences both outdoors and indoors. Our dedicated global team is committed to advancing the industry, fueled by the vision that a better-connected future is possible.

ANDREW®
an Amphenol company

ANDREW.COM

Visit our website or contact your local ANDREW representative for more information.