ERA® DIGITAL DISTRIBUTED ANTENNA SYSTEM

4G/LTE AND 5G CONNECTIVITY YOU CAN COUNT ON

ANDREW®
an Amphenol company
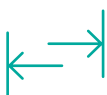
DELIVER LTE AND 5G WHERE PEOPLE ARE

The need for robust in-building cellular coverage has never been greater. The power to communicate anywhere, anytime through our mobile devices is essential—and expected. Dropped calls, spotty coverage and dead zones are no longer acceptable. Building owners, property managers and enterprises need consistent and reliable mobile service to keep employees productive, tenants satisfied, and customers connected.

ANDREW all-digital ERA® distributed antenna system (DAS) delivers high-performance in-building connectivity with speed and simplicity. The modular system allows you to support today's cellular coverage and capacity demands and scale to deliver 5G when you're ready.

MEETS GROWING MOBILE DEMAND

- Supports 5G/4G/3G/2G
- Used in venues ranging from under 3,000 to 275,000 square meters (30,000 to nearly 3 million square feet)
- Allocate capacity among buildings/spaces through a simple drag-and-drop interface

SIMPLE TO DESIGN, INSTALL AND OPERATE

- Modular infrastructure provides flexible configurability
- Frequency-agnostic architecture supports multiple bands on common hardware
- Cloud-based or on-site management system automates operation

ECONOMICAL

- Advanced software tools for efficient configuration, management and operation
- Converged fiber fronthaul infrastructure supports other services, such as Wi-Fi and security cameras, for CapEx and OpEx savings

SPACE-SAVING

- Up to 90% smaller head-end footprint than traditional analog DAS gained through fewer and smaller hardware components
- Head-end can be many kilometers/ miles away from covered buildings
- Operates on standard IT cabling infrastructure

FLEXIBLE

- Ideal for small, medium and large deployments both indoors and out
- Shift capacity to where and when you need it, all in software

ERA IS IDEAL FOR THESE ENVIRONMENTS

- High-rise office buildings
- Office parks
- Hospitals
- Hotels
- College campuses
- Airports
- Retail centers
- Entertainment/ sports venues

FAST FORWARD TO 5G WITH ERA®

5G will enable smartphones and other devices to send and receive large amounts of data at lightning speeds. In addition to faster transmission, 5G offers low latency and defined quality of service to support smart devices like precision instruments and autonomous vehicles, for business-critical applications.

According to the GSMA, even by 2025, 56% of mobile connections will still use 4G/LTE,* which means that enterprises will need to support 4G and 5G concurrently. ANDREW's ERA is future-ready to support both. Your enterprise can migrate with confidence—without ripping and replacing infrastructure.

ERA supports 5G in existing frequency bands with no changes at all. For higher mid-band frequencies such as C-band, ERA offers a mid-band feeder module and access points; the rest of the infrastructure is unchanged. The result is a system that supports 2G through 5G over a common set of nodes and cabling.

*Source: GSMA, The Mobile Economy 2020

Common platform for commercial cellular and IoT

The internet of things (IoT) can transform the way enterprises do business and make their facilities more efficient, secure and sustainable. ERA supports cellular IoT standards including LTE Cat M1 and NB-IoT to provide a pervasive and reliable data coverage layer, without need for a costly dedicated IoT overlay infrastructure.

IN-BUILDING CELLULAR APPLICATIONS ARE EXPANDING WITH IOT AND 5G

Now	
• Work/play in the cloud	• Telemedicine
• Video surveillance	• Asset management
• Collaboration/training	• Smart wearables

Next	
• IIoT, real-time control	• Connected vehicles
• Remote diagnostics	• Immersive AR/VR
• Remote surgery	• Remote assisted living

ANDREW ERA® SYSTEM INCLUDES:

- A head-end that's on-site or in the service provider's centralized radio access network (C-RAN) hub that digitizes transmissions from base stations
- ERA's head-end features a direct digital interface to compatible third-party baseband unit. This consolidates the functionality of up to six remote radio units into a single card, significantly reducing head-end space, power demand and HVAC costs
- Secondary nodes that extend the signal throughout a building or multi-building site
- Access points (APs) that convert the digital signal to radio frequency for over-the-air transmission
- Compact wideband directional and omnidirectional antennas
- Comprehensive monitoring and management software for efficient operation and support, and reduced downtime

AIMOS: SMARTER MANAGEMENT MADE SIMPLE

ANDREW Advanced Integrated Management and Operating System (AIMOS) helps ensure optimal in-building cellular network performance while simplifying operation and maintenance. The platform has a customizable graphic user interface.
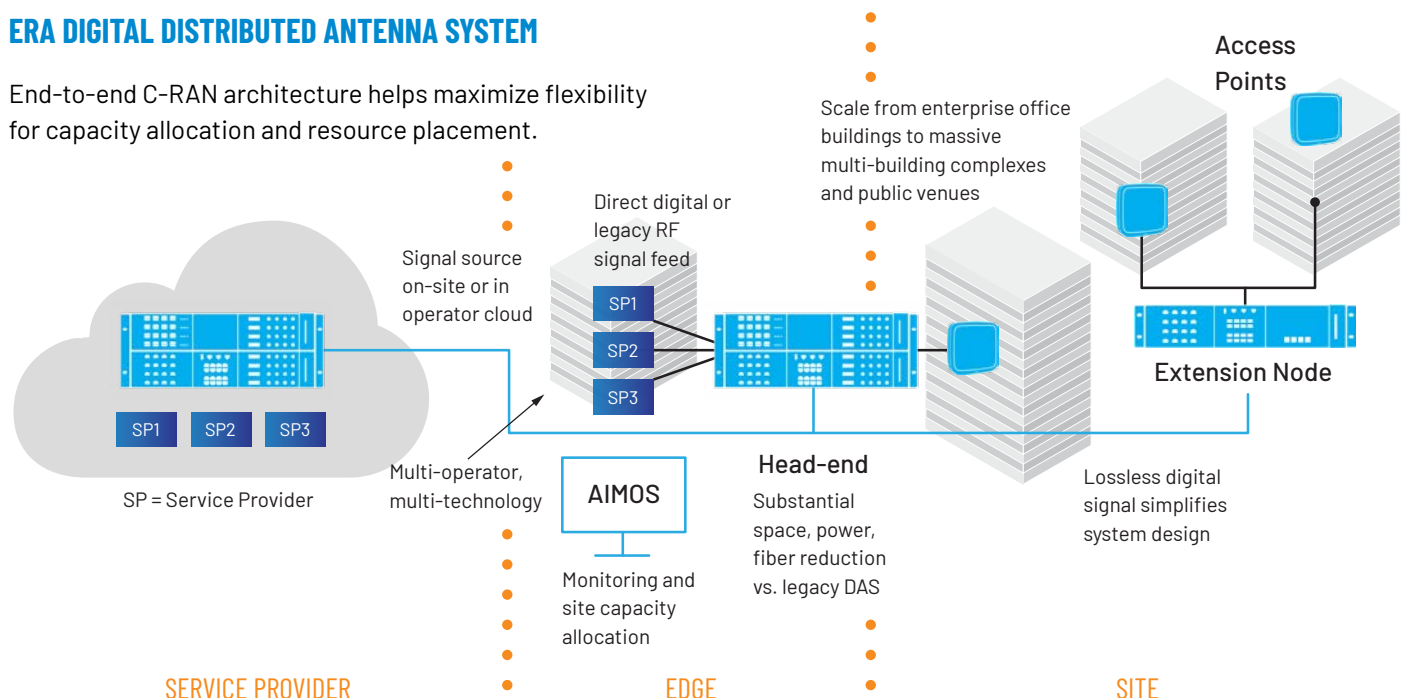
AIMOS provides automated support with robust fault, configuration and inventory management capabilities, saving time and money for otherwise manual tasks. It integrates with third-party systems that use SNMP and data interchange formats such as SOAP and XML. AIMOS is available via software license or software as a service (SaaS).

ERA head-end node and access points

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End-to-end C-RAN architecture helps maximize flexibility for capacity allocation and resource placement.

Signal source on-site or in operator cloud

Direct digital or legacy RF signal feed

Scale from enterprise office buildings to massive multi-building complexes and public venues

Access Points

SP1
SP2
SP3

SP = Service Provider

Multi-operator, multi-technology

AIMOS

Monitoring and site capacity allocation

Head-end
Substantial space, power, fiber reduction vs. legacy DAS

Lossless digital signal simplifies system design

Extension Node

SERVICE PROVIDER   EDGE   SITE

PUBLIC SAFETY

With growing concern for public safety globally, the need for reliable, ubiquitous, 24/7 cellular network availability is critical. Emergency responder radio coverage is often a requirement in new construction and sometimes even mandated for existing buildings. ERA offers specialized access points that support public safety frequencies, including Band 14 for FirstNet in the U.S. These remotes are available in different transmit power levels to address different building types.

ANDREW also offers a range of multiband RF repeaters that are designed for public safety applications. These can be used as a signal source to ERA or on their own with direct coaxial connection to multiple antennas.

ENVISION THE FUTURE WITH ERA®

The ANDREW all-digital ERA is a next-gen, future-ready solution that minimizes head-end space and power consumption and fiber runs, while providing highly flexible mobile capacity allocation. ERA is simpler to install, manage, and operate—all while providing the flexibility to upgrade, expand and grow.

A TRUSTED PARTNER THAT DELIVERS IT ALL

For over 40 years, ANDREW has led the industry in helping companies of all sizes scale, build and sustain robust connections that power more efficient buildings.

From office buildings, hospitals, and hotels to airports, stadiums, and college campuses, ANDREW is a leader in in-building cellular systems. We have in-house expertise and a global network of experienced solution providers.

Contact your ANDREW solution provider or representative to learn how your network Scan do more than you ever imagined. Visit andrew.com to learn more.

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