



Cellium

Indoor Wireless Done Right

EdgeAir – A Cost-Effective In-building 5G-NR Wireless Connectivity Solution

Indoor 5G-NR coverage without compromise

Cellium's EdgeAir antenna sub-system, integrated with Cellium's intelligent SoC (System-on-a-Chip), is a revolutionary, technology agnostic, energy-efficient solution, compatible with all wireless technologies including LTE, 5G, Wi-Fi and IoT networks. It provides secure, 'zero-loss', high-performance indoor coverage and is significantly lower on both CapEX and OpEX saving up to 75% when compared to alternative in-building wireless technologies.



TCO savings of up to ~75%



Higher performance than traditional indoor deployment options



RAN Topology Agnostic (gNB/O-RAN)



Seamless interoperability with any 3rd party RAN equipment



Compatible with any Sub-7 GHz radio technology (LTE, 5G, Wi-Fi & IoT)



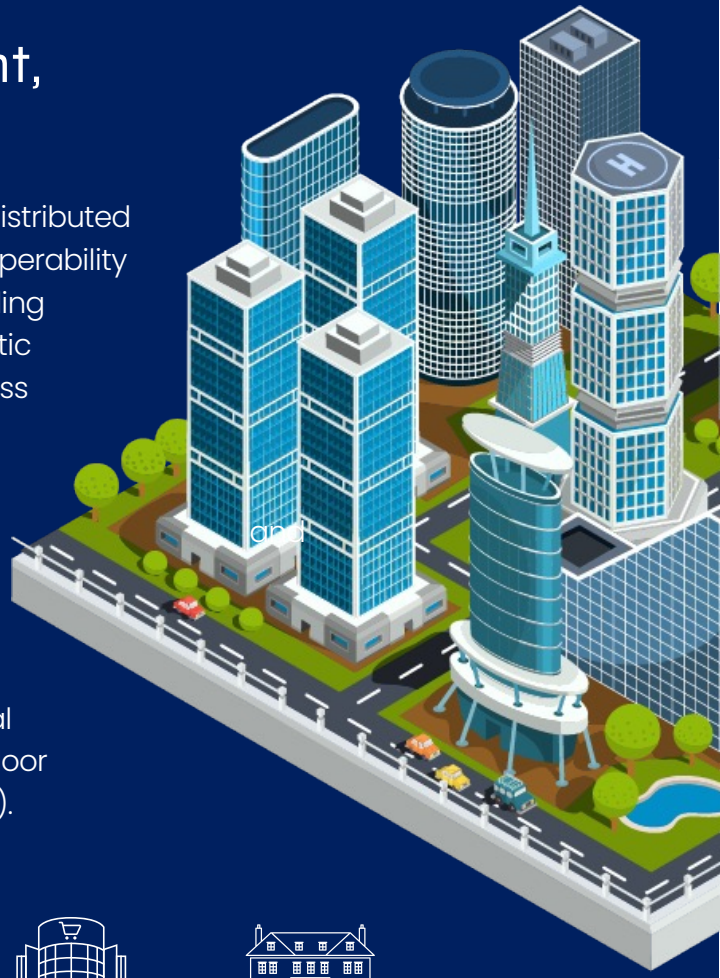
Up to ~66% less power consumption

Private, Public, Multi-Tenant, & Neutral Host Solutions

Any Sub 7-GHz outdoor RF frequency can be redistributed indoors without the associated high cost, interoperability and performance issues that traditional in-building cellular solutions currently offer. Cellium's agnostic approach to indoor coverage can be used across all indoor vertical scenarios.

Cellium's EdgeAir family consists of a single, multi-tenant or neutral host variants for MNO's, a single-tenant variant for Private 5G-NR to provide high-performance, indoor coverage and capacity.

Highly scalable, with the option to add additional CRU's (up to 64) to provide coverage for any indoor environment up to ~750,000 sq. ft (~70,000 sq. m).



PRIVATE



PUBLIC



MULTI-TENANT



NEUTRAL HOST



SOHO/SME

How it works (the basics)

Cellium's EdgeAir antenna sub-system connects to any 3rd party outdoor RAN equipment, in any Sub-7GHz frequency band (5G-NR, LTE, Wi-Fi and IoT) and re-transmits the original RF frequency throughout the indoor space via multiple Cellium Remote Units (CRU's).



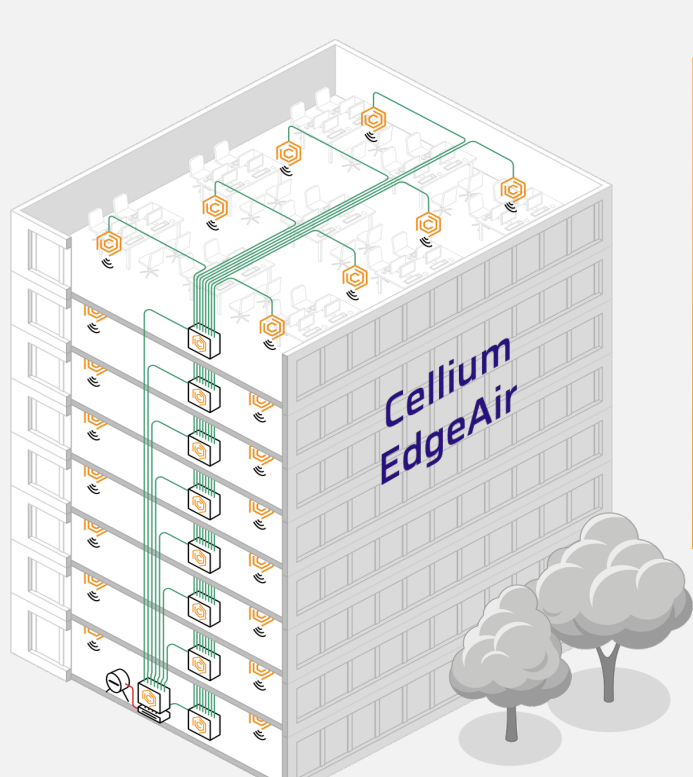
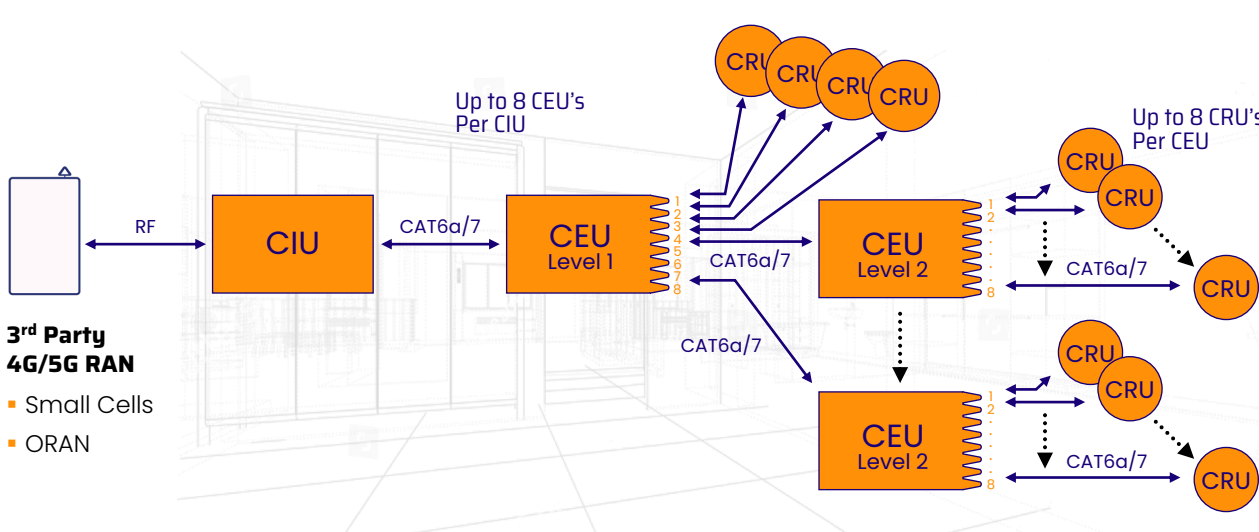
Cellium Interface Unit (CIU)



Cellium Expander Unit (CEU)



Cellium Radio Unit (CRU)



EdgeAir, an Active DAS-like solution, enables system integrators, enterprise owners, and mobile network operators to provide end users with an in-building solution that removes the high-cost and complexity commonly associated with alternative indoor 5G-NR deployment solutions.



High Coverage

Up to 750,000 sq ft (70,000 sqm) per radio sector

- Up to 64 radios in a single system
- 3D Super Cell (within/between floors)
- No interference, No SON requirements



High Capacity

Single & multi-sector support

- High QAM
- Network MIMO
- Multi-floor sector allocation



System Simplicity

Minimal installation expertise

- Seamless IOT with any RAN vendor
- Simple PoE powering
- No complex IT equipment



Low Maintenance

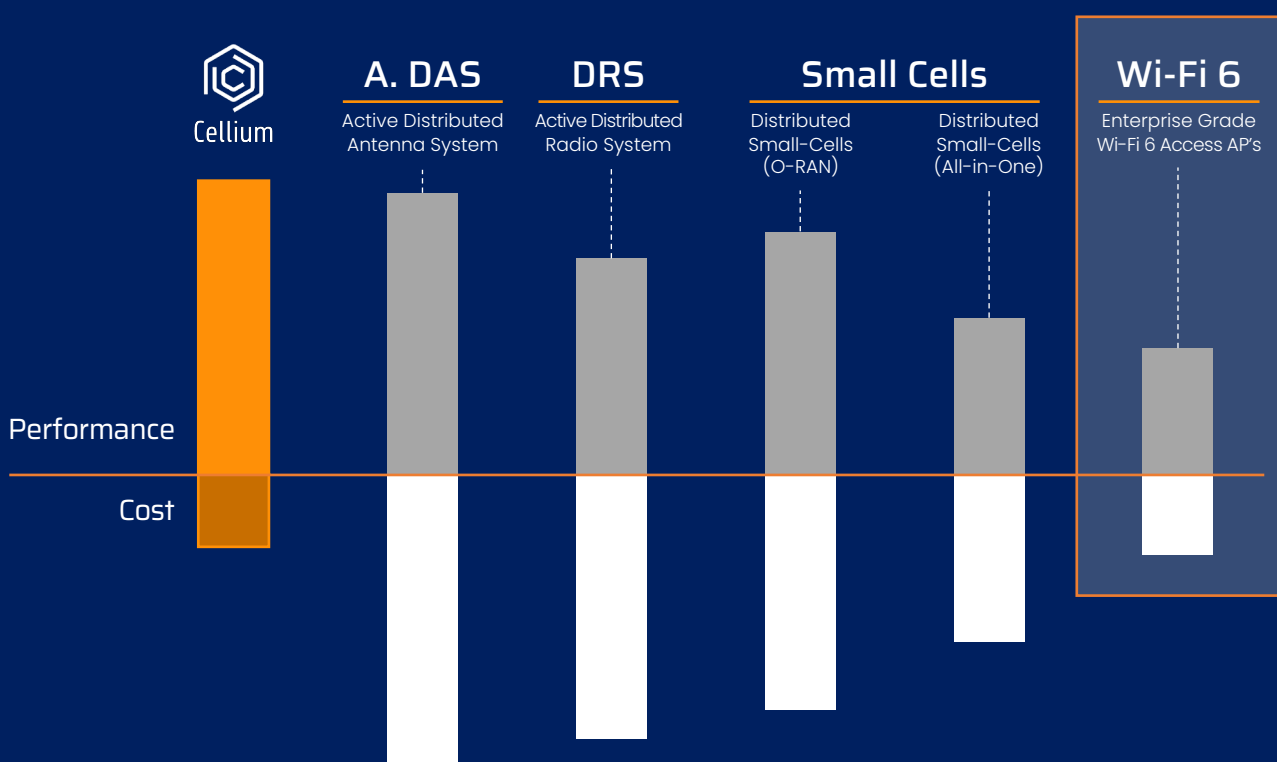
- Simple fault detection and replacement
- Flexible and simple system modification

Patented Technology

Cellium's patented technology enables down/up conversion of radio frequency (RF) signals emanating from any radio signal source, including Cellular 5G-NR, LTE, Wi-Fi, or IoT, to/from Intermediate Frequency (IF) and to be transmitted over existing in-wall CATx Ethernet copper or coaxial cables.

Higher Performance at a Lower Cost

By using in-building ethernet copper cables, Cellium's EdgeAir antenna sub-system is a cost-effective indoor wireless solution that provides coverage without any compromise in performance. Cellium's EdgeAir, compared to traditional 5G-NR in-building deployment technologies, offers significant savings in both CapEX and OpEX (up to 75%). By making the right indoor deployment choice, system integrators, enterprise owners and mobile network operators can offer their customers a high-performance in-building wireless solution without the associated high costs with alternative indoor deployment solutions.



Ask Us Anything. Anytime.

The Cellium Technologies team is looking forward to talking to you. Please reach out for more general information about our indoor solutions, an in-depth technical discussion or to arrange an in-person demo.

For more information, please visit:

cellium.net