



## The Top In-Building Wireless Acronyms You Need to Know

**3PO (3<sup>rd</sup> Party Operator)** – what Airwavz is. We operate an end-to-end, unique, secure and proprietary in-building wireless mobile network for our customers

**AA (agency agreement)** – a bit like a real estate agent listing agreement where Airwavz becomes the designated broker for our customer and works with the wireless carriers on their behalf to secure service agreements

**BBU (base band unit)** – a device that processes the original wireless frequency range of a signal before it is modulated or changed into something useful in a distributed antenna system

**BTS (base transceiver station)** – a piece of equipment that connects mobile devices to the wireless provider's network and covers a defined area known as a cell

**CLEC (competitive local exchange carrier)** – not the local phone company (ILEC's such as AT&T, Verizon, Centurylink, etc...), but rather one of the many that popped up in the market following deregulation in the 1990's

**C-RAN (centralized/cloud radio access network)** – a centralized, cloud computing-based network architecture supporting wireless communication standards like 3G, 4G/LTE, 5G etc....

**DAS (distributed antenna system)** – a series of active connected antennas inside of a commercial building

**D-RAN (distributed radio access network)** – similar to a DAS, but passive antennas connected to carriers' radios inside of building instead of elsewhere

**DWDM (dense wavelength division multiplexing)** – a technology that puts data from different sources together on an optical fiber, with each signal carried at the same time on its own unique light wavelength

**IaaS (Infrastructure as a Service)** – like other “\_aaS” acronyms, this represents any type of business model where the actual infrastructure needed to perform a business function becomes part of the service itself

**ILEC (incumbent local exchange carrier)** – the phone company, or whichever local telephone company 'owns' the rights to serve a particular area



**Macro Cell (cell tower)** – basically one of the big cell towers we see dotting the landscape that have trouble penetrating tall commercial buildings in dense metro areas

**MIMO (multiple input, multiple output)** – pronounced “my-moe”, is where multiple antennas are used at both the source (transmitter) and at the destination (receiver). Helps reduce errors and optimize data speed

**MNO (mobile network operator)** – a fancy acronym/name for spectrum-owning wireless service providers like Verizon, AT&T, TMobile, Sprint and other smaller regional and discount players.

**MSO (multiple system operators)** – the local cable company (e.g. Comcast, Spectrum, et al) when they own more than one franchise (as almost ALL do today)

**MVNO (mobile virtual network operator)** – a fancy name for a wireless provider that does NOT own their network but resells another’s under their own brand name (ex: Straight Talk, Consumer Cellular, Virgin Mobile, etc...)

**PIM (passive intermodulation)** – interference in a wireless system that drives building tenants crazy and keeps wireless network engineers busy. Well-meaning tenants putting femtocells in their offices are a big cause of PIM

**RRH or RRU (remote radio head or unit)** – a radio transceiver that connects to an operator radio-controlled panel via a wired or wireless interface. For Airwavz these would be units inside of our data center that would connect to wireless carriers’ networks

**SC/LC (connector types for fiber)** – two types of fiber connectors, with LC being a smaller connector about half the size of the SC

**SISO (single input, single output)** – like MIMO but only single antenna at transmitter and single antenna at receiver end

**SLA (site license agreement)** – the agreement that shows the building owner means business and Airwavz has the green light to get wireless carriers onboard

**Small Cell** – not a big antenna like the macro cell, but a smaller one typically found on a building or streetlight focusing on providing cellular service in a small area

**Wi-Fi** – not an acronym for anything, and not a substitute for in-building wireless