



OneCell® Cloud-RAN small cell system

Meet the simple super-cell solution that delivers superior indoor LTE performance

CommScope's innovative OneCell solution delivers consistent, superior LTE performance throughout enterprises and public venues at a dramatically lower cost of deployment than available alternatives.



Dual OneCell baseband controller units in a 1U shelf

How does it deliver all this? Simple. Using a Cloud-RAN (C-RAN) architecture, the OneCell baseband controller and multiple radio points form a virtualized “super cell” that covers the entire area. No cell borders means no handovers and no boundary interference. It couldn't be simpler.

OneCell works over standard Ethernet switches and cabling and does not require proprietary network elements, expensive fiber or complex radio frequency planning. The solution also supports VoLTE and LTE Advanced capabilities.



Superior user experience

Eliminates inter-cell handovers and interference to ensure uniform, high-quality service and up to 10x faster data rates.



Macro and core-network friendly

Streamlines interfaces to core network and neighboring macro cells for improved performance and easier deployment.



Future-ready

Designed to support LTE Advanced features with just a simple software upgrade. System capacity and coverage can be added non-disruptively.

Revolutionary C-RAN architecture

The OneCell baseband controller and multiple radio points form a single “super cell” that eliminates small-cell handovers and interference across large indoor spaces.



Simple and economical

Deployed over standard Ethernet switches and cabling, plug-and-play OneCell eliminates the need for complex configuration and radio frequency planning.



More capacity via Smart Reuse™

Using a CommScope-pioneered technique known as cell virtualization, multiple users in a single physical cell can share the same frequencies—effectively multiplying system capacity without creating interference.



OneCell radio point

OneCell® Cloud-RAN small cell system

An innovative new approach to LTE for public venues and enterprises

The demand for indoor LTE service is skyrocketing. 80 percent of all mobile data sessions originate and terminate indoors. However, deploying multiple traditional small cells across large venues creates cell border areas that suffer from interference, low throughput and connection drops.

OneCell effectively fills this indoor wireless gap by turning the “every cell for itself” paradigm on its head. OneCell consists of a baseband controller and multiple radio points to deliver high-capacity LTE across indoor spaces ranging from 5,000 to 100,000 square meters. The controller coordinates transmitter and receiver functions across all radio points.

By eliminating handovers and border interference, OneCell delivers consistent service quality with high throughput and low latency for data and voice over LTE (VoLTE) services. Multiple radio points work in concert to serve a single user, using higher order Multiple-Input, Multiple-Output (MIMO) to provide substantially higher throughput. Radio points can be added at strategic locations to overcome interference from nearby co-channel macro cell sites.

Macro and core-network friendly

OneCell presents a single interface to the evolved packet core (EPC) network and a single physical cell ID (PCI) to neighboring macro cells. This enables advanced self-organizing network (SON) techniques to ensure minimal disruption of the macro network by OneCell and vice versa. Joint transmission and reception between radio points and subscriber devices allow both to operate at low power levels—further decreasing macro impacts.

Simple, low-cost deployment

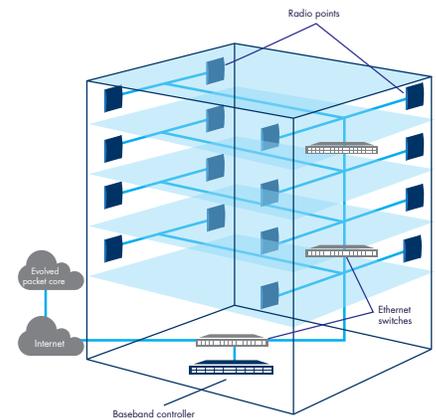
OneCell also provides a simple, low-cost IT model of deployment. The absence of cell borders vastly simplifies radio frequency planning. Standard Ethernet for front-haul eliminates costly proprietary network elements or optical links, while Power over Ethernet (PoE) eliminates the need for local power. CommScope's Device Management System (DMS) ensures plug-and-play provisioning.

Future-ready investment protection

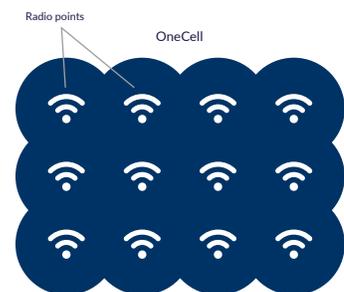
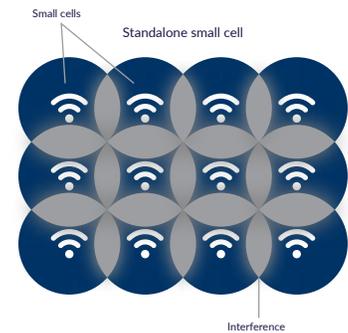
Software upgrades allow operators to take advantage of powerful LTE capabilities like carrier aggregation, coordinated multipoint (CoMP) and MIMO—all without replacing installed equipment. Increase system capacity via a simple license upgrade. Coverage can be added without introducing new cell borders or interference. Software-selectable frequency bands enable common hardware to support any approved operator within the region, making OneCell multi-operator ready. Ethernet switching and cabling infrastructure can be shared by multiple operators.

Award-winning technical excellence

As judged by a panel of CTOs from 16 leading mobile operators worldwide, OneCell's unique approach to solving wireless challenges distinguished it as the Outstanding Overall Mobile Technology at the 2015 Mobile World Congress. Gartner has referred to OneCell as “visionary” for two years in a row, so why wouldn't you take advantage of a wireless solution that helps operators cost-effectively deliver the LTE experience subscribers expect and deserve?



OneCell is deployed over standard Ethernet switches and cabling and provides a single interface to the mobile core network.



OneCell creates a single “super-cell,” eliminating inter-cell borders, handovers and interference issues.

Everyone communicates. It's the essence of the human experience. *How* we communicate is evolving. Technology is reshaping the way we live, learn and thrive. The epicenter of this transformation is the network—our passion. Our experts are rethinking the purpose, role and usage of networks to help our customers increase bandwidth, expand capacity, enhance efficiency, speed deployment and simplify migration. From remote cell sites to massive sports arenas, from busy airports to state-of-the-art data centers—we provide the essential expertise and vital infrastructure your business needs to succeed. The world's most advanced networks rely on CommScope connectivity.



commscope.com

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

© 2017 CommScope, Inc. All rights reserved.

All trademarks identified by ® or ™ are registered trademarks or trademarks, respectively, of CommScope, Inc. This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to CommScope products or services. CommScope is committed to the highest standards of business integrity and environmental sustainability, with a number of CommScope's facilities across the globe certified in accordance with international standards, including ISO 9001, TL 9000, and ISO 14001. Further information regarding CommScope's commitment can be found at www.commscope.com/About-Us/Corporate-Responsibility-and-Sustainability.

BR-110160.1-EN (02/17)