



Artemis pCell vRAN Leapfrogs Existing 5G Networks with 10 Times More Capacity

>1 Gigabit in Just 20 MHz of Spectrum in both Private and Public LTE/5G Networks

SAP Center at San Jose First Venue with Gigabit Private LTE/5G Network

Mountain View – May 11, 2022 – Artemis Networks® today unveiled the pCell® Multi-Gigabit LTE/5G vRAN (Virtualized Radio Access Network), which delivers 10x the capacity of conventional LTE/5G networks in the same amount of spectrum. While existing LTE/5G networks average less than 100 Mbps in 20 MHz of spectrum, a network powered by pCell with equivalent spectrum averages **over 1 Gigabit/second**, and over 7.5 Gigabits/second in 150 MHz, faster than any mobile network in the world.

Artemis also announced the first large-scale pCell vRAN installation in SAP Center, a 140,000 sq. ft. (13,000 sq. m), 20,000-seat arena that hosts 150+ events per year, including concerts, family shows, San Jose Sharks hockey, and the Panthers indoor football. The pCell vRAN makes SAP Center the world's first venue with a Gigabit Private LTE/5G Network, deployed in just 20 MHz of free CBRS spectrum, far outperforming SAP Center's existing carrier networks which require much more spectrum.

"The pCell vRAN's unique ability to multiply spectrum capacity by over 10x (and growing) will ultimately transform the lives of the billions of people who use mobile networks every day," said Steve Perlman, Artemis Founder & CEO, "The pCell vRAN enables a new era in wireless communications, when fiber-class capacity, uniformity, and reliability are available over the airwaves. pCell vRAN delivers consistent 4K streaming in both directions, enabling a new class of applications, such as photo-realistic Extended and Augmented Reality interactively streamed to thousands of users, regardless of density."

The Artemis pCell vRAN delivers uniform high-speed data rates, enabling every arena seat to stream 4K video, while the existing carrier networks deliver widely varying data rates seat-to-seat, most too slow to stream HD video. The pCell Gigabit Private LTE/5G network is currently in use by beta test attendees during games and events and will open to all attendees later this year.

"The Artemis pCell network opens up a wide variety of novel fan experience possibilities in high-density venues," said Jonathan Becher, President of Sharks Sports & Entertainment, "Attendees at live events want to stream video down and up from any location in the arena but existing cellular and Wi-Fi systems don't deliver the uniformity of pCell coverage. The pCell network's performance and consistency allows us to leverage new technologies like Augmented Reality to deliver compelling experiences to fans."

pCell technology is based on a radical new approach to wireless that *exploits*, rather than *avoids* interference, resulting in a more than 10 times increase in network capacity per MHz of spectrum, while remaining compatible with unmodified LTE and 5G phones and devices. Over [100 academic papers](#) have been published about the underlying technology since its invention.

"pCell is the most innovative technology I've seen in wireless in a very long time, upending everything we've been taught about wireless," said Craig Moffett, Senior Managing Director of MoffettNathanson, "We've all grown up thinking that spectrum is a scarce resource, but pCell breaks that equation, delivering over 10 times the performance of existing LTE and 5G technology."



Federated Wireless, the leader in private wireless and shared spectrum solutions, is an emerging Artemis pCell service delivery partner. Federated Wireless specializes in design and delivery of private wireless solutions that meet unique use cases and innovation goals. Federated Wireless currently has 100k connected CBRS devices across the United States and 350+ customers including the US Department of Defense, Carnegie Mellon University, the City of McAllen, Texas and over 140 Wireless Internet Service Providers (WISPs).

“We’re excited to see innovative and disruptive technologies that are adopting CBRS,” said Iyad Tarazi, CEO of Federated Wireless. “Artemis holds enormous potential for high speed, low latency use cases and we look forward to seeing their success in this rapidly growing market.”

With Multi-Gigabit speeds in free CBRS spectrum, uniform performance, and the ability to support 10s of thousands of users, pCell catapults the Private LTE/5G market from niche use cases to [major venues](#), [campuses](#), [enterprise](#) and [hospitals](#), delivering 10 times carrier-grade performance.

“Artemis pCell is one of the largest technology breakthroughs I’ve seen in my career,” said John Sculley, former CEO of Apple and a founding investor of MetroPCS, “But Artemis’ real genius is getting around longstanding barriers to entering the market by delivering vastly higher performance at far lower TCO via Private LTE/5G in the new CBRS spectrum. For the first time, large mobile customers including venues, campuses and enterprise can choose mobile infrastructure based on performance, quality and economics, and most significantly, enabling future applications. Breakthrough technology like pCell enables entirely new media experiences like Extended and Augmented Reality that are expected to be huge growth opportunities for mobile wireless in the future.”

pCell vRAN Private LTE/5G installations are also neutral hosts for mobile network operators seeking the same 10x performance leapfrog to their subscribers, using CBRS or their own spectrum.

Subject to availability of components, pCell systems will be increasingly available through 2022.

About Artemis

Artemis Networks (www.artemis.com) is the creator of pCell technology. Artemis was founded by technology pioneer Steve Perlman in the early 2000s and has been incubated for over a decade by his Rearden Companies incubator (www.rearden.com). Over [100 academic papers](#) have been written about pCell technology and pCell is backed by over 300 issued and allowed patents worldwide.

Find out more about Artemis pCell Multi-Gigabit LTE/5G Networks at www.artemis.com. Follow Artemis on social media: [Facebook](#), [LinkedIn](#), [Twitter](#), and [YouTube](#).

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