



## **pCell Wireless Streams HD Video to “Wall of 20 iPads” at First Code Conference**

Tiny 1 cm LTE Personal Cell (“pCell”) Synthesized for Each iPad, for 20X Spectrum Reuse  
Far Exceeding LTE Peak Spectral Efficiency, Demo Impossible over Cellular LTE

**Palos Verdes, CA, May 29, 2014.** Steve Perlman, Founder and CEO of Artemis Networks, demoed pCell™ technology streaming HD video to a “Wall of 20 iPads” today at the inaugural Code Conference at the Terranea Resort in California. The demonstration before a sold-out crowd of global technology and business leaders showed 20 unmodified, out-of-the-box iPad Airs effortlessly streaming HD video in just 5 MHz of downlink spectrum, using pCell technology to synthesize a tiny 1 cm diameter personal cell (a “pCell”) for each iPad, enabling all iPads to use the same spectrum at once.

Only 3 months ago, Artemis unveiled pCell technology by streaming video to 8 LTE iPhones, each with its own pCell in 5 MHz of spectrum and stated that pCell could scale to any number of simultaneous LTE devices in the same spectrum so there is never congestion, even in very high-density user scenarios like stadiums, airports, schools or major cities. With today’s demo, Artemis has more than followed through on that promise:

Not only is the pCell “Wall of 20 iPads” demo a 2.5X increase in the number of simultaneous devices and data rate compared to the 8-iPhone demo, approaching 100 Mbps in only 5 MHz of downlink spectrum in 1 square meter, but this feat would be literally *impossible* to achieve in a cellular LTE system (whether large or small cell) since it is far in excess of LTE’s peak “spectral efficiency” (Megabits/sec per MHz) to iPads in 5 MHz, let alone LTE’s far lower real-world spectral efficiency.

“Today’s demo shows how effortlessly pCell scales as more LTE devices are added to the network,” said Steve Perlman, Founder & CEO of Artemis Networks. “But the demo also shows that pCell easily solves an increasingly common scenario that is physically beyond the capability of cellular: many tablets streaming HD video in a small area, whether a stadium, a school or an airport.”

Although the mobile market is skyrocketing, with USD\$2 trillion in global revenue in 2013 projected to grow to \$2.9 trillion by 2020 [[GSMA 2014](#)], the entire future of the mobile ecosystem rests on the ability of mobile operators to continue to meet the explosive growth in data demand, which is almost doubling each year. With the world rapidly running out of mobile spectrum, and major cities and venues already suffering from serious wireless congestion, the core question for the mobile industry is what spectral efficiency can be achieved in the mobile spectrum that exists?

With today’s demonstration, Artemis has shown that pCell is scalable to whatever spectral efficiency is needed, already far exceeding the spectral efficiency limitations of cellular LTE, while remaining 100% compatible with out-of-the-box LTE devices. Mobile operators can seamlessly deploy pCell at small or large scale, not only bringing to an end wireless congestion, but enabling a host of new services reliant on consistent data rates delivered by pCell, that simply aren’t possible given high variability and unavoidable congestion with cellular wireless.

“pCell is one of the most impressive disruptive inventions to ever emerge from Silicon Valley,” said John Sculley, former Apple CEO, founding MetroPCS board member, and Artemis advisor. “pCell is way



beyond a science project; it's ready for commercial deployment and backed-up with over 100 pending or issued patents.”

Artemis is engaged with dozens of mobile operators worldwide and slated for its first city and stadium trials in the fourth quarter of 2014, with larger scale deployments in 2015.

To find out more about pCell technology, visit [www.artemis.com](http://www.artemis.com)

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### **About Artemis**

Artemis Networks LLC ([www.artemis.com](http://www.artemis.com)) is the pioneer of pCell technology, a breakthrough approach to wireless that consistently delivers full-speed data rate to every mobile device concurrently, regardless of how many users are sharing the same spectrum at once. Founded by technology pioneer Steve Perlman in early 2000s, and incubated for over a decade by Steve’s Rearden Companies incubator ([www.rearden.com](http://www.rearden.com)), Artemis is based in San Francisco, California. pCell technology is protected by a broad portfolio of fundamental patents, both in the US and internationally.

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