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Rice University Chooses Azimuth Systems ACE MX Channel Emulator

ACTON, MA- October 17th, 2011 - [Azimuth Systems, Inc.](#), a leading provider of comprehensive real world wireless test solutions for 2G/3G/4G, LTE-Advanced and beyond, today announced that [Rice University](#), renowned for its cutting-edge research programs and ranked among the top 20 schools in the US, has selected the Azimuth [ACE MX MIMO channel emulator](#) in its 8x4 bi-directional configuration for use in upcoming research on Spectrum-Programmable Access for Next-generation Deployments.

Led by Professor Edward Knightly in conjunction with Professors Ashutosh Sabharwal and Lin Zhong, the new project is intended to yield the first urban deployment with aggregated access to diverse spectral ranges, enabling disruptive system designs unconstrained by any standard. The new network, leveraging Rice University TFA (tfa.rice.edu) and WARP platform (warp.rice.edu), will serve a large urban population with a 10,000 user footprint in an underserved community, and is designed to yield three key developments.

First, a high-performance and programmable wide-band node that can access 100 times more spectrum and aggregate multiple bands to yield four times greater transmission bandwidth than any currently available open-source platform. Thus the project innovations will enable clean-slate programmability at any layer and will provide new multi- full-duplex transit node and the first multi-user beam-forming gateway;

Second, a unique network-scale monitoring tool that will provide distributed signal, packet, and system monitoring across vast spectral, spatial, and temporal scales for both clients and infrastructure nodes and;

Lastly, the team is planning to deploy a 3 km² wireless network comprising of new wideband nodes, compliant smartphones, and community-owned legacy 802.11 clients.

Rice University chose the ACE MX MIMO channel emulator for this critical research due to key product features including its ability to support carrier aggregation, as well as multi-user and beamforming scenarios. Rice University also has extensively [used the ACE WB MIMO channel emulator](#) as part of its Wireless Open Access Research Platform (WARP).

“The new platform will enable fully-observable at-scale experiments with disruptive protocol designs driven by unique applications and traffic types, providing a distinctive opportunity to revolutionize wireless technology,” said Ashutosh Sabharwal, former director of the Center for Multimedia Communications at Rice University and founder of the WARP project. “By enabling transformational research in spectrum access, we will be developing technologies which will

impact spectrum policy and standards, as well as the broader wireless industry and research community.”

“Advanced wireless research requires the most advanced wireless test tools -- Azimuth solutions bring the real world into the lab with effective and easy-to-use implementations to rapidly assess and benchmark the performance of complex and evolving wireless technologies,” said Ajay Patel, executive director, product management, Azimuth Systems. “Azimuth’s field-proven, solutions-focused automated wireless test equipment makes testing more reliable by increasing the scope of testing, paving the way for the future of wireless test.”

The ACE MX wireless channel emulator replicates real-world channel conditions in a controllable and repeatable fashion through the use of sophisticated channel models and multiple programmable parameters. Azimuth [recently](#) enhanced the ACE MX and Director II Management Software to serve the critical needs of Azimuth’s growing and diverse customer base with improved ease-of-use and functionality, increased bandwidth for support of carrier aggregation and updated standard channel models. This enables mobile infrastructure, chip set and device vendors, operators and test labs to test devices in real-world conditions while minimizing the time and expense of testing in the field. A purpose-built, enhanced testing solution, the ACE MX wireless channel emulator is architected to meet the demanding needs of Multiple-Input, Multiple-Output (MIMO) and orthogonal frequency-division multiplexing (OFDM)-based systems for testing LTE, LTE-Advanced and other wireless infrastructure equipment and devices, and also includes all of the backwards-compatible channel emulation features to test 2G/3G cellular products.

About Azimuth Systems

Azimuth Systems is the leading provider of comprehensive real world wireless test solutions for 2G/3G/4G, LTE-Advanced and beyond, with field-proven, solutions-focused automated wireless test equipment that makes testing more affordable and reliable by increasing the scope of testing while enabling real world performance testing across the entire product design cycle, resulting in high quality devices that perform as expected in the field.

The company is based near Boston, Massachusetts, USA and may be contacted at +1 (978) 263-6610 or at www.azimuthsystems.com. Follow Azimuth Systems on Twitter at: <http://twitter.com/azimuthsystems>.

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