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**Press Release**

## Ruckus Takes Top Marks in Recent Wi-Fi Testing Performed by the Croatian Academic and Research Network (CARNet)

*Nineteen Different Wi-Fi Access Points Stressed to their Limits in a Variety of Different Scenarios, Revealing Dramatic Differences Between Competitive Suppliers*

**SUNNYVALE, CA and ZAGREB, HR – May 4, 2015** – Ruckus Wireless, Inc. (NYSE: RKUS) announced today that its ZoneFlex™ Smart Wi-Fi technology outperformed Aerohive, Aruba, Cisco, Cisco/Meraki, HP, Ubiquiti and Xirrus in an exhaustive head-to-head enterprise performance and capacity testing of 802.11ac and 802.11n indoor access points (APs) conducted recently by the Croatian Academic and Research Network (CARNet).

A widely respected public institution established in 1991 and based in Croatia, CARNet operates under the Ministry of Science, Education and Sport, working in the fields of information and communication technologies and their application in education, from network and Internet infrastructure and e-services, to security and user support. CARNet is chartered with facilitating the progress of individuals, as well as society as a whole, through the use of new information technologies.

Using industry standard test tools, access points in the tests were stressed in progressive testing scenarios that included 12, 23, 36 and 60 clients, using an increasing number of clients for each test that measured aggregate Transmission Control Protocol (TCP) throughput.

Nineteen different Wi-Fi access points from the world's leading suppliers including Ruckus Wireless, Aerohive, Aruba, Cisco (including Cisco/Meraki), HP, Ubiquiti, and Xirrus were tested at the CARNet headquarters in Zagreb. To maintain testing integrity, no vendor was allowed to pay for, subsidize or influence the Wi-Fi testing by CARNet.

Suppliers were allowed to bring in their choice of APs without limitation in what model and how many as long as they could be tested in a single day. Each company was also permitted to send an engineer to the test site. Aerohive, Cisco, HP and Ruckus Wireless each sent a representative to CARNet for the tests.

The [Ruckus ZoneFlex R700](#) dual-band 3x3:3 802.11ac and [ZoneFlex R500](#) dual-band 2x2:2 802.11ac indoor APs with Ruckus-patented [BeamFlex™](#) adaptive antenna technology outperformed all competitive 11ac APs in the tests. CARNet also accepted and included 802.11n access points from all invited vendors, including Ruckus, Ubiquiti, Xirrus and others. Test results of these products showed that the performance of the [Ruckus ZoneFlex 7982](#) and [ZoneFlex 7372](#) 802.11n indoor access points not only outperformed the 802.11n models tested from Ubiquiti and Xirrus, they also beat other vendors' 802.11ac Wave 1 access points, including those from Aerohive, Aruba, Cisco (including Cisco/Meraki) and HP, in various test scenarios.

The results of the CARNet testing conclusively showed that Ruckus Smart Wi-Fi APs consistently delivered the highest levels of performance in all five different real-world test scenarios created by CARNet.

“The test results from CARNet speak for themselves,” said Selina Lo, president and CEO of Ruckus Wireless. “As a pioneer in adaptive radio technologies that deliver optimum throughput from unlicensed spectrum, Ruckus has continued to raise the bar in wireless performance across generations of Wi-Fi technologies, from 11g to 11ac. These tests are further testament to the strength and longevity of our innovations and differentiations.”

## CARNet Wi-Fi Testing Methodology

802.11ac Wave 1 APs from Aerohive, Aruba, Cisco (including Cisco/Meraki) and HP were tested by CARNet using a wide variety of client mobile devices, both 802.11ac and 802.11n compatible, in order to closely simulate real-world environments. All APs tested were placed outside of a classroom at CARNet, separated from the client devices by 5dB (measured thickness) drywall. A real-world mix (60 total) of various mobile devices, including smartphones, tablets and laptops from different manufacturers, each with varying Wi-Fi specifications and operating systems, were used. An increasing number of clients were added for each new throughput test (measured in downstream Mbps), and each AP tested had to perform in the presence of known radio frequency (RF) interference. CARNet observed and documented the maximum throughput to all of the test client devices.

Each vendor in attendance was given an opportunity to test each of their APs themselves, to ensure they were operating as desired, and had the opportunity to optimize configurations of each AP for the best possible performance. No effort was made by CARNet to “clean up” the RF environment, as real-world deployments have to deal with random, and often uncontrollable, levels of modulated and unmodulated interference. CARNet then tested each AP three times, with the highest throughput number recorded.

In four testing scenarios in both the 2.4 and 5 GHz frequencies (one using 13 client devices; another using 23; a third using 36; and a fourth using all 60 client devices), the Ruckus ZoneFlex R700 and R500 APs consistently showed the best performance, coming out on top every time. In a fifth and final test scenario, where client devices were spread around in a 270 degree arc shape (i.e., a distributed test scenario) so that the APs would have to alternate communicating to client devices in various directions, the Ruckus ZoneFlex R700 access point was again the winner as the top performing 802.11ac Wave 1 AP.

To review the CARNet test results and detailed methodology, please visit:

<http://www.ruckuswireless.com/carnet-performance-testing>.

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