



## PRESS RELEASE

### LIBERTY UNIVERSITY LAUNCHES CAMPUS-WIDE WIRELESS IPTV USING 802.11N WI-FI FROM ARUBA NETWORKS AND HAIVISION'S FURNACE VIDEO DISTRIBUTION SYSTEM

Path-Breaking Program Provides Access To 15 Video Channels Anywhere On Campus

**SUNNYVALE, Calif., November 3, 2009** – [Aruba Networks, Inc.](#) (NASDAQ: ARUN), a global leader in 802.11n wireless LANs and secure mobility solutions, today announced that Liberty University has launched a path-breaking program to encode and wirelessly distribute multi-channel IP-based video (IPTV) over its high-speed [802.11n wireless LAN](#). The objective of the program is to provide roaming students with universal access to multi-channel video. Following successful proof-of-concept deployments in campus dormitories with Aruba and [HaiVision Network Video](#), a world leader in encoding and IP video distribution solutions, IPTV has now been rolled out campus-wide. By rightsizing the video delivery infrastructure - leveraging 802.11n Wi-Fi everywhere possible and minimizing reliance on expensive coaxial and Ethernet cabling plants – the university significantly enhanced user mobility while reducing capital and operating expenses.

“Colleges and universities are deploying very sophisticated wireless networks both to support electronic learning initiatives and to displace wired Ethernet ports for cost savings,” said Gartner Principal Research Analyst [Tim Zimmerman](#). “As the capabilities and capacity of wireless LANs have expanded, applications that were once the exclusive province of wired networks are migrating to wireless. The momentum of this migration is not expected to slow because students now expect anywhere anytime access to learning, entertainment, and social networking applications and programs.”

[Liberty University](#) has 46,000 local and distance-learning students, and more than 2,600 full time employees. The university's 802.11n network was designed anticipating the deployment of wireless IPTV, and today delivers 15 live TV channels over the wireless network. The network includes more than 770 Aruba 802.11n access points; Aruba's policy-enforcement firewall for identity-based security, Quality of Service control, and traffic management; and HaiVision's Video Furnace system and InStream client player for secure multicast video distribution and instant access to live channels, channels delivered from disk, and video on demand.

“During the proof-of-concept stage, approximately 300 802.11n access points in dormitories delivered video and high-speed data on a single SSID,” said Bruce Osborne, Liberty University's Wireless Network Engineer. “We used Aruba's Adaptive Radio Management to steer only 802.11n 5GHz-capable clients to that SSID. Our 5GHz Cisco wireless phones also used the 802.11n network but they operated on a separate SSID. HaiVision's Video Furnace system simultaneously streamed video over Wi-Fi and to set-top boxes over the LAN. Our trials ran successfully for several months prior to our decision to roll-out wireless IPTV to the entire campus.”

Aruba's [Adaptive Radio Management](#) (ARM) technology automatically optimizes Wi-Fi performance, an essential requirement in a university's dynamically changing and challenging RF environment. By automating site surveys and using infrastructure-based controls to optimize the performance of Wi-Fi clients in real-time, ARM helps ensure that latency-sensitive voice and video applications have sufficient network resources, including airtime, to operate reliably.

“Prior to Aruba, Liberty University was using a wired IPTV system, but as with all wired networks it was ill suited to an increasingly mobile user community,” said Mark Norris, Liberty's Project Manager. “When we launched the IPTV project we were expecting to support between three to five video channels. But with the help of Aruba's field engineers and HaiVision we are now broadcasting 15 simultaneous video channels over our 802.11n network. From their laptops, and

independent of their location on campus, students access Liberty's campus channel as well as ABC, CBS, CNN, ESPN, FOX, NBC, and a range of other broadcasters. The results we've obtained have far exceeded our expectations, and could serve as a model for other universities that want to implement wireless IPTV and rightsize network infrastructure."

[Network rightsizing](#) is a three step process that matches infrastructure with user needs, leveraging Wi-Fi everywhere possible and wired infrastructure only when necessary. The first step entails assessing the actual or projected utilization of ports and switches. In the second step ports and switches are consolidated to lower deployment and maintenance costs, and to reduce electricity and HVAC usage. The final step involves deploying adaptive 802.11n Wi-Fi to enhance user mobility. The result is a more cost-effective network, with a smaller carbon footprint, that is tailored to current and future user needs.

"Wireless delivery of IPTV on campus is the wave of the future because it yields dual benefits," said Robert Fenstermacher, Aruba's head of education marketing. "It brings content to students wherever and whenever they need it, something not possible with wired infrastructure. And, through network rightsizing, it minimizes the cost of delivering that content. Liberty University has demonstrated that Aruba's high-performance 802.11n solution and HaiVision's Video Furnace IP video distribution system support demanding multi-channel wireless video applications. In so doing, they make IPTV over Wi-Fi a viable solution for universities worldwide."

Aruba has released a new white paper that discusses its unique video-related technology. Titled "I Can See Clearly Now: Bringing Wireless Broadband Into Focus," the paper can be downloaded from Aruba's [Web site](#).

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### **About Aruba Networks**

People move. Networks must follow. Aruba securely delivers networks to users, wherever they work or roam, using a combination of award-winning solutions:

- Adaptive 802.11n Wi-Fi networks optimize themselves to ensure that users are always within reach of mission-critical information. Rightsizing expensive wired LANs by replacing them with high-speed 802.11n Wi-Fi reduces both capital and operating expenses;
- Identity-based security assigns access policies to users, enforcing those policies whenever and wherever a network is accessed;
- Remote networking solutions for branch offices, fixed telecommuters, and satellite facilities ensures uninterrupted remote access to applications;
- Multi-vendor network management provides a single point of control while managing both legacy and new wireless networks from Aruba and its competitors.

The cost, convenience, and security benefits of our secure mobility solutions are fundamentally changing how and where we work. Listed on the NASDAQ and Russell 2000® Index, Aruba is based in Sunnyvale, California, and has operations throughout the Americas, Europe, Middle East, and Asia Pacific regions. To learn more, visit Aruba at <http://www.arubanetworks.com>. For real-time news updates follow Aruba on Twitter at <http://twitter.com/ArubaNetworks>.

### **About HaiVision Network Video**

Based in Montreal and Chicago, HaiVision Network Video is a private company and a world leader in delivering advanced video networking technology and IPTV solutions. HaiVision's products are deployed worldwide at Fortune 100 companies and in military, defense, healthcare, and educational applications for video collaboration and training, remote learning, interactive broadcasting and TelePresence. To learn more visit our Web site at [www.haivision.com](http://www.haivision.com).

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