

Cal-(IT)² And UC San Diego Select Entrée Wireless To Supply Mobile Gateways For High-Speed Connectivity On Homeland Security Communications Project

April 19, 2004

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Entrée Wireless, a leading developer of Mobile Wireless Gateways, and the California Institute for Telecommunications and Information Technology [Cal-(IT)²] will deploy Entrée's technology solution to provide high-speed wireless connectivity in the field for first responders in disaster situations. "Entrée has taken a concept first implemented as part of Cal-(IT)²'s CyberShuttle project, and turned it into the first commercial product of its kind," said Ramesh Rao, director of the institute's San Diego division and a professor of electrical and computer engineering in the University of California, San Diego (UCSD) Jacobs School of Engineering. "These mobile gateways will be a cornerstone of the communications networks we are developing for homeland security and other purposes."

Entrée's Mobile Area Network solution-dubbed the MANPack-is a battery-powered, briefcase-size device that integrates a high-speed wireless Wi-Fi access point with access to a third-generation (3G) cellular network. It can be easily transported to any location within the coverage of a 3G network, and instantly extends the reach of the 3G system to Wi-Fi-enabled devices nearby. "Using a standard Wi-Fi-enabled laptop or PDA, users can access the Internet at broadband speeds thanks to the seamless convergence of Wi-Fi and 3G networks," said David Ahlgren, president of Entrée Wireless. "In crisis response situations, the MANPack will enable communication with, and tracking of, first responders, resources and casualties at locations where permanent Wi-Fi access is not available."

The first commercial shipments of Entrée hardware and software will be deployed as part of the Wireless Internet Information System for Medical Response in Disasters (WIISARD), a project based at UCSD and funded by the National Library of Medicine, part of the National Institutes of Health. Led by UCSD School of Medicine professor Leslie Lenert, M.D., the \$4.1 million project will explore and test the use of sophisticated wireless technology to coordinate and enhance care of mass casualties in a terrorist attack or natural disaster. San Diego's Metropolitan Medical Strike Team, a partner in WIISARD, will incorporate the mobile 'hotspots' in an emergency test on May 12, when it will enable police, fire and other emergency service personnel to connect to the Internet at high speeds.

The MANPack is a three-in-one device, combining:

- an 802.11b/g Wi-Fi access point;
- a connection to Verizon Wireless's nationwide 'Broadband Access' data-optimized 3G network which is based on QUALCOMM's CDMA 1xEVDO/RTT standard and was recently deployed on Nortel Networks' CDMA infrastructure in San Diego; and
- access-control gateway software that provides captive portal advertising and manages security, bandwidth utilization, user authentication, remote management and other services.

The system is noted for its proprietary Bandwidth Limiting Technology (BLT) that protects the cellular network, and its provision for Incremental Revenue Generation (IRG).

While the MANPack is the first such product on the commercial market, Cal-(IT)² introduced the first experimental version of the technology in April 2002 with the launch of the CyberShuttle. The bus service between the UCSD campus and a nearby commuter train station permitted students and faculty with laptops to use their regular UCSD Wi-Fi cards to access the Web through a link to QUALCOMM's experimental high-data-rate system-a precursor of today's 1xEVDO technology. "This Cal-(IT)² project allowed the campus to live in the future, experimenting with broadband access that is only now becoming a commercial reality," said Cal-(IT)² division director Rao. "Our work was in the public domain and Entrée should be congratulated for the speed and focus with which it has taken our initial work and turned it into a product for the marketplace."

Although first-responder applications will be the focus of WIISARD, Entrée Wireless sees homeland security as the tip of the iceberg when it comes to future demand for gateways that link local Wi-Fi hotspots via 3G wireless to the broadband Internet. "We foresee corporate applications for professionals and consumers in mobile venues such as rental cars, trains, limos and buses, as well as temporary or re-locatable office venues for auditing, sales events/demo, trade shows or emergency repair teams," noted Entrée president Ahlgren. "These systems enable 3G wireless carriers to address new customers, increase revenue, and harness the Wi-Fi gold rush by monetizing the large and growing installed base of Wi-Fi-equipped laptops and PDAs." According to Ahlgren, Entrée will also work closely with Cal-(IT)² to develop future enhancements to the first generation of gateways, including the integration of position-location technology.

About Entrée Wireless

San Diego-based Entrée Wireless is an early stage, technology-driven company specializing in the development and marketing of Gateways that create Mobile Area Networks (MAN) and extend the reach of 3G Wide Area Networks. The first product is a Mobile Wi-Fi Gateway that bridges the gap between 3G CDMA Broadband Access and today's pervasive Wi-Fi-enabled laptops and PDAs. The products feature mobile and instant installation and provide Internet access for consumers and mobile professionals. The Gateways are designed to be carrier friendly, and feature Incremental Revenue Generation (IRG), Bandwidth Limiting Technology (BLT), SNMP based monitoring and management, and standards-based RADIUS authentication, billing and class of service management. www.EntreeWireless.com/

About Cal-(IT)²

The California Institute for Telecommunications and Information Technology is one of four institutes created by the State in late 2000 to ensure that California maintain its leadership in cutting-edge technologies. Cal-(IT)²'s mission: to extend the reach of the current information infrastructure throughout the physical world, enabling anywhere/anytime access to the Internet. More than 220 professors and senior researchers from UC Irvine and UC San Diego are collaborating on interdisciplinary projects. www.calit2.net.

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