

## Meru's 'Uninterrupted Care Network' brings innovative multi-layered solution to healthcare Wi-Fi

*UCN designed to align hospitals' networks and devices with efforts for improving patient safety, clinician productivity and patient satisfaction*

**March 5, 2013 -** [Meru Networks](#), Inc. (NASDAQ:MERU), a leader in virtualised wireless LAN solutions, has announced the Meru 'Uninterrupted Care Network' (UCN), a new solution that enables hospitals to offer wireless support for a range of "Life-Critical," "Mission-Critical" and "Consumer-Critical" devices and applications utilising a single wireless network. UCN assists hospitals' efforts to improve patient safety, clinician productivity and patient satisfaction. It also helps hospitals meet requirements associated with Meaningful Use and address the stress placed on networks and IT departments by BYOD. UCN can be deployed as an overlay to existing wireless and wired networks and is designed to lower the costs and complexity of supporting "Life-Critical" devices and applications such as Wi-Fi-enabled telemetry.

"Our Point of Care Computing for Nursing 2012 Healthcare Study shows significant trends on how hospital nurses are using mobile solutions at point of care to streamline productivity, enhance patient safety and reduce the risk of medical errors," said Gregg Malkary, founder and managing director of the Spyglass Consulting Group. "However, nurses often struggle with the quality and reliability of the wireless network. Meru's Uninterrupted Care Network is designed to allow hospital IT to provide a more reliable and scalable wireless network within their facilities to support an increasing number of wireless users, devices and applications required at point of care."

### The Meru 'Uninterrupted Care Network'

Meru's UCN is able to create separate Wi-Fi channel layers. This allows hospitals to offer the benefits of mobility for Wi-Fi enabled "Life Critical" devices such as telemetry, and to help ensure reliable connectivity for those devices on their own dedicated wireless channel layers. As a result, patient monitoring is not interrupted if a nurse forgets to connect an Ethernet cable or if an Ethernet cable is inadvertently disconnected.

### Three Layers of UCN

- **Life Critical:** One set of wireless channels can be dedicated for life critical applications and devices like smart infusion pumps and Wi-Fi enabled telemetry devices and for carrying wireless traffic only associated with these applications. Centralised monitoring conducted by Wi-Fi enabled devices is not only designed to improve clinician productivity, but may also help hospital in improving patient safety.
- **Mission Critical:** A second channel layer can be dedicated for "Mission Critical" applications and devices to provide reliable connectivity and QoS for mobile enterprise applications such as EMR, VoIP, Citrix based CPOE and barcode

- medicine administration. This is designed to improve clinician productivity and increase patient satisfaction (HCAHPS).
- **Consumer Critical:** UCN can also provide a “Consumer-Critical” layer, to enable patients to connect with friends and family using the Internet. Such family interaction has been shown to positively impact patient mood and treatment outcome, thus further improving patient satisfaction scores.

Meru’s UCN is built on top of Meru’s Wireless Virtualisation technology which is designed to enable constant connectivity, reliability and seamless mobility for mobile devices and applications like nurse call, voice communications and mobile carts even in harsh hospital RF environments. With Meru’s AirTime Fairness, each device gets access according to its need, thereby delivering predictable application performance.

Medical device vendors have gone to great lengths to equip their devices with the best radio transmission and receiver technology. Even so, the limitations of traditional microcell based Wi-Fi networks, combined with “Life-Critical” nature of such devices, have made it extremely difficult for healthcare facilities to leverage their investment in such Wi-Fi medical devices. Due to these limitations, Wi-Fi medical devices are often connected using Ethernet, which can decrease clinicians’ productivity.

“Meaningful Use” requirements are leading to greater adoption of technologies such as CPOE, barcode medication administration, VoIP and nurse-call communications. On the other hand “Value Based Purchasing” criterion include patient satisfaction scores (HCAHPS), which rely on technologies such as Unified Communications. Such mission critical technologies are used by highly mobile teams of clinicians, for whom a lack of pervasive and reliable Wi-Fi connectivity can significantly reduce productivity.

Personal devices such as tablets, smartphones and gaming systems brought into the hospital by patients’ families and friends are also of increasing importance to patient care and satisfaction. Happy, relaxed patients are often able to heal faster and generally have better experiences in medical facilities, lowering costs for providers and raising HCAHPS scores. These “Consumer-Critical” uses of the Wi-Fi network, which range from simple texting to streaming HD video from services like Netflix and Hulu and the use of videoconferencing applications like Facetime, were carefully considered in the development of UCN.

### **UCN Networked Services**

#### **Meru Identity Manager**

Using Meru’s Identity Manager (IDM), hospitals can greatly simplify secure guest access and device provisioning on wireless networks, reducing IT workload and delivering a high-quality end-user experience. With IDM, clinicians can self-provision their tablets (BYOD) daily, with the tablets disconnecting themselves from the network when the doctors leave for home to provide patient data security.

#### **Meru Service Assurance Manager**

Using this software, you can proactively maintain high service levels for wireless applications without the need for overlay sensors. Service Assurance Manager

automatically performs predictive health checks and can report issues often before end users are impacted. UCN's Service Assurance capability can proactively notify administrators about latency problems as well as issues in the end-to-end network connectivity or detect Wi-Fi and non-Wi-Fi interference from devices such as microwave ovens that may impact the quality and reliability of the Wi-Fi network.

"Hospitals want to leverage Wi-Fi in improving patient safety, clinicians' productivity, and patient satisfaction," said Kamal Anand, senior vice president and general manager of the healthcare business unit at Meru. "With Meru's channel layering technology, hospitals are able to provide consistent and reliable connectivity for such improvement initiatives."

To read more about Meru in healthcare, visit the Meru web site for the following materials:

- The Meru 2013 Healthcare IT WLAN Survey: <http://bit.ly/12hw9XQ>
- The Uninterrupted Care Network (Solutions Brief): <http://bit.ly/Z3o41i>
- Meru Healthcare Overview: <http://bit.ly/13uhInZ>

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#### **About Meru Networks**

Meru Networks (NASDAQ: MERU) designs, develops, and distributes virtualised wireless LAN solutions that provide enterprises with the performance, reliability, predictability and operational simplicity of a wired network with the advantages of mobility. Meru Networks eliminates the deficiencies of multichannel, client-controlled architectures with its innovative, single-channel, virtualised network architecture that easily handles device density and diversity. Meru wireless LAN solutions are deployed in major vertical industries including Fortune 500 businesses, education, hospitality, healthcare and retail supply chain. Founded in 2002, Meru is headquartered in Sunnyvale, Calif., with operations in North America, Europe, the Middle East and Asia Pacific. Visit [www.merunetworks.com](http://www.merunetworks.com) or call (408) 215-5300.