



## Current Press Releases

### **Maine's Gorham School District Goes Wireless with High-Performance 802.11n Network from Meru.**

Meru WLAN Addresses Need for High-density Access As State Distributors Laptop Computers to Students.

**Sunnyvale, Calif., Mar.2, 2009** – Maine's Gorham School Department has equipped its 850-student high school with a new high-speed IEEE 802.11n draft 2.0 wireless network from Meru Networks and plans to extend the WLAN to the district's three elementary schools over the next several years.

The Meru WLAN was brought into support the burgeoning high-density wireless access needs arising in part from the efforts of the Maine Learning Technology Initiative (MLTI) to provide every student with a laptop computer beginning in the middle school.

The WLAN supports activities ranging from the students accessing the Internet to teachers doing student assessments, building schedules and taking attendance using Gorham's Student Information System. Users can even connect to the network from outdoor venues such as athletic fields. Two distinct wireless networks are supported: one for students and faculty with school-owned computers, the other for guests and those who bring their own laptops to school.

Dennis Crowe, who joined Gorham Schools in early 2008 as director of technology, said, "I was flabbergasted that, with every high school teacher having a laptop and plans calling for every student to have one, there was no wireless access in the high school. Wireless became priority number one. We needed a system with sufficient capacity so that when we have one laptop per student, there won't be a bottleneck. And that system had to be rich enough to support a move to wireless IP telephony in the future."

A central controller architecture was essential to the school's needs, Crowe said, "Because Apple is so big in the MLTI program, most schools have used Apple "fat" APs, each of which has to be updated locally and individually. With a centrally controlled wireless system, you can update all the APs at once from a remote location."

After evaluating a number of WLAN vendors, Crowe and his team chose Meru on the basis of its virtual cell architecture and its Airtime Fairness capability. The virtual cell approach, which uses a single radio frequency channel for all APs rather than assigning different channels to adjacent APs, appealed to Crowe for its ability to support a high density of users.

#### **Meru's Virtual Cell: Do Disruptive AP-to-AP 'Handoffs'**

"If you bring a cart full of laptops into a room and one AP starts to get overloaded, Meru's system automatically moves you to another AP and you don't notice any interruption or disconnection," he said. "That was a great idea I didn't see with any of the other vendors. This approach will be a lot more stable if we decide to go with wireless IP phones later for our more mobile personnel, such as administrators and physical education teachers" (the schools currently use an Avaya wired IP telephone system). And Meru's Airtime Fairness algorithm, which provides equal

access for all clients regardless of access methods (e.g., 802.11 a, b, g or n) or speed, “made sense because no one client can suck up all the bandwidth.”

Crowe said Gorham chose an 802.11n network 0 which supports access at up to five times the speed of the earlier 802.11a/b/g standards – because “we want our APs to be with us for at least several years, and the new Mac laptops we’re getting in all support the 11n standard.” All Meru 802.11n AP are backward-compatible with the 11a/b/g standards.

### **Wired Network – Not Wireless – is the Bottleneck**

Network connectivity at several areas in Gorham High School – the gymnasium, auditorium, athletic fields – is wireless-only, because such venues are difficult to wire, Crowe said. But even in classrooms, he expects wireless to quickly supplant wired as the primary means of network access.

“In most settings people think of the wireless network as the bottleneck ; in our system today, the bottleneck is the wired network,” he said. “Our classrooms have only one wired network drop each. So if there’s more than once computer, you have to put in a switch, or – as I’ve seen some teachers doing – unplug the network wire from their desktop computer and plug it into their laptop. Wireless is cheaper, easier to install, and people aren’t tripping over cords.”

The Gorham High School wireless deployment uses Meru’s AP320 dual-radio 802.11 a/b/g/n access points, which support creation of two full layers of wireless coverage network-wide; and an MC3000 series controller, which provides the centralized intelligence to easily deploy and manage large-scale wireless WLANs.

In Meru’s virtualized WLAN architecture, a single channel is selected for use by all access points enterprise-wide, and a dedicated “virtual port” is assigned to each client device to maximize performance, reliability, and enterprise control over wireless resources. Additional channels can be layered as more capacity is required. In contrast, legacy WLAN systems from other vendors use a “micro cell” approach, which assigns different radio channels to many small adjacent AP cells to ensure that no two APs use the same channel in the same place. This requires precise and time-consuming channel planning and AP power adjustments to work well, making it difficult to load-balance in dense environment, and limiting future network expansion.

### **About Gorham Schools**

Gorham School Department is located in Gorham, ME., 10 miles west of Portland. Approximately 2,700 students attend the district’s high school, middle school, and three elementary schools. For more information, visit [www.gorhamschools.org](http://www.gorhamschools.org).

### **About Meru Networks**

Meru Networks develops and markets wireless infrastructure solutions that enable the All-Wireless Enterprise. Its industry-leading innovations deliver pervasive, wireless service fidelity for business-critical applications to major Fortune 500 enterprises, universities, healthcare organizations and local, state and federal government agencies. Meru’s award-winning Air Traffic Control technology brings the benefits of the cellular world to the wireless LAN environment, and its WLAN System is the only solution on the market that delivers predictable bandwidth and over-the-air quality of service with the reliability, scalability, and security necessary to deliver converged voice and data services over a single WLAN infrastructure. Founded in 2002, Meru is based in Sunnyvale, Calif. For more information, visit [www.merunetworks.com](http://www.merunetworks.com) or call (480)215-5300.